

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                         | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                          | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 75-07-0    | acetaldehyde -----<br>liquid<br>( <i>ethanal</i> ,<br><i>acetic aldehyde</i> )<br><br>CH <sub>3</sub> CHO(l) or C <sub>2</sub> H <sub>4</sub> O(l)                          | D                      | 3  | 4  | 2  | Toxic; harmful by inhalation, ingestion, skin absorption; causes skin irritation or burns and severe eye irritation; affects the central nervous system, liver and kidneys; extremely flammable liquid and vapour; may form explosive levels of peroxides in storage; possible human carcinogen. | B, D1       | 5             | 3.1              | WF/I             |
| 60-35-5    | acetamide -----<br>crystals<br>( <i>acetic acid amide</i> )<br>CH <sub>3</sub> CONH <sub>2</sub> (s)                                                                        | C                      | 1  | 1  | 0  | May cause skin, eye and respiratory tract irritation; dust-air mixture explosive; possible human carcinogen.                                                                                                                                                                                     | D2          | 8             | NR               | WF/I             |
| 64-19-7    | acetic acid, glacial -- liquid<br>( <i>ethanoic acid</i> )<br>CH <sub>3</sub> COOH(l) or C <sub>2</sub> H <sub>4</sub> O <sub>2</sub> (l)                                   | B                      | 3  | 2  | 0  | Corrosive; liquid and mist cause severe burns to all body tissue; may be fatal if ingested; harmful if inhaled; flammable liquid and vapour.                                                                                                                                                     | B, E        | 5, 1          | 8<br>(3)         | N/P -D           |
| 64-19-7    | acetic acid -----<br>solution ( <i>vinegar</i> )<br><u>mixture</u> :<br>CH <sub>3</sub> COOH -----5 - 7%<br>H <sub>2</sub> O ----- 93 - 95%<br><br>CH <sub>3</sub> COOH(aq) | A                      | 1  | 0  | 0  | Causes irritation of the nose, throat and respiratory tract; prolonged contact may cause burns and dermatitis.                                                                                                                                                                                   | NC          | 1             | 8                | N/P-D            |

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| 108-24-7   | acetic anhydride -----<br>liquid<br>( <i>acetic oxide, ethanoic anhydride</i> )<br><br>C <sub>4</sub> H <sub>6</sub> O <sub>3</sub> (l) | C                      | 3  | 2  | 1<br><del>W</del> | Corrosive; causes severe burns to any area of contact; severe eye and respiratory irritant; harmful if swallowed; flammable liquid and vapour; water reactive.              | D1, D2, E   | 5             | 8<br>(3)         | WF/I               |
| 67-64-1    | acetone -----<br>liquid<br>( <i>2-propanone</i> )<br><br>CH <sub>3</sub> COCH <sub>3</sub> (l)                                          | B                      | 1  | 3  | 0                 | Causes respiratory and eye irritation; vapours may cause drowsiness and dizziness causing depression of the central nervous system; harmful if swallowed; highly flammable. | B, D2       | 5             | 3                | WF/I               |
| n/a        | aceto-carmin<br>stain-----<br>solution<br><u>mixture</u> :<br>carmin ----- 0.5%<br>acetic acid ----- 45.0%<br>water ----- 54.5%         | B                      | 1  | 0  | 0                 | May cause skin, eye and respiratory tract irritation; may cause gastro-intestinal tract discomfort if ingested.                                                             | D1, E       | 1             | 8                | WF/I               |
| n/a        | aceto-orcin stain-sol<br><u>mixture</u> :<br>acetic acid ----- 45%<br>orcin ----- 2%<br>water ----- 53%                                 | B                      | 1  | 0  | 0                 | May cause irritation to eyes, skin and respiratory system; may cause gastro-intestinal tract discomfort if ingested.                                                        | E           | 1             | 8                | WF/I or<br>N/P - D |
| 75-36-5    | acetyl chloride -----<br>liquid<br>( <i>ethanoyl chloride</i> )<br><br>CH <sub>3</sub> COCl(l)                                          | D                      | 3  | 3  | 2<br><del>W</del> | Corrosive; causes severe burns to eyes and skin; harmful if inhaled or swallowed; highly flammable; reacts violently with water forming toxic phosgene.                     | B, D1       | 5             | 8<br>(3)         | WF/I               |

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| 107-02-8   | acrolein -----<br>liquid<br>(2-propenal,<br>acrylaldehyde)<br><br>C <sub>3</sub> H <sub>4</sub> O(l)                                                                              | D                      | 3  | 4  | 1  | Corrosive; causes severe irritation or burns to eyes and skin; highly toxic if inhaled or ingested; highly flammable; may be carcinogenic.                                                                                                                       | B, D1, E    | 5             | 6.1              | WF/I             |
| 79-10-7    | acrylic acid ----- liquid<br>(2-propenoic acid)<br><br>C <sub>3</sub> H <sub>4</sub> O <sub>2</sub> (l) or<br>CH <sub>2</sub> CHCOOH(l)                                           | D                      | 3  | 2  | 2  | Toxic, may be fatal if swallowed; harmful if inhaled or absorbed through skin; causes burns to skin, eyes and mucous membranes; severe respiratory irritant; unstable, must be stored with MEHQ inhibitor and access to oxygen gas; flammable liquid and vapour. | B, D1, E    | 5             | 3<br>(8)         | WF/I             |
| 124-04-9   | adipic acid ----- powder<br>(hexanedioic acid, 1,4-butandicarboxylic acid)<br>C <sub>6</sub> H <sub>10</sub> O <sub>4</sub> (s) or<br>HOCO(CH <sub>2</sub> ) <sub>4</sub> COOH(s) | B                      | 1  | 1  | 0  | Causes irritation of the eyes; inhalation may cause irritation; powder-air mixture is explosive.                                                                                                                                                                 | NC          | 3             | NR               | N/P - D          |
| 51-43-4    | adrenaline -----<br>powder<br>(epinephrine)<br><br>C <sub>9</sub> H <sub>13</sub> NO <sub>3</sub> (s)                                                                             | B                      | 2  | 1  | 0  | May cause irritation of eyes, skin, respiratory and digestive tracts; harmful by inhalation, contact with skin or if swallowed; excess absorption can be fatal; increases heart rate, blood pressure; powder-air mixture explosive.                              | D2          | 8             | 6.1              | WF/I             |

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| 9002-18-0  | agar, all culture --- powder<br><u>mixture</u> :<br>agarose ----- variable<br>agarpectin ----- "<br>glucose ----- "<br>ascorbic acid ---- "<br>other ----- " | A                      | 2  | 1  | 1  | May be irritating to eyes, skin, mucous membranes and upper respiratory tract; decomposes on exposure to light; combustible if heated or ignited.                                | NC          | 8             | NR               | T                |
| 56-41-7    | L-alanine -----<br>crystals<br>(l-2 aminopropanoic acid)<br>$C_3H_7NO_3(s)$ or<br>$CH_3CH(NH_2)COH(s)$                                                       | B                      | 1  | 1  | 0  | Dust may cause irritation of eyes, digestive and respiratory tracts; flammable if heated, combustible if heated or ignited, powder-air mixture is explosive.                     | NC          | 8             | NR               | T or D(aq)       |
| 72-48-0    | alizarin -----<br>crystals<br>( <i>alizarin B</i> or red, mordant red 11, turkey red)<br>$C_{14}H_8O_4(s)$                                                   | B                      | 2  | 1  | 0  | Skin and eye irritant; may be harmful if ingested or inhaled; flammable if heated, powder-air mixture is explosive.                                                              | D2          | 8             | NR               | T or D(aq)       |
| 130-22-3   | alizarin red S----- solution<br><u>mixture</u> :<br>alizarin ----- 1.0%<br>water ----- 99.0%                                                                 | B                      | 1  | 0  | 0  | Solution may cause mild skin and eye irritation.                                                                                                                                 | NC          | 8             | NR               | D                |
| 130-22-3   | alizarin red S ----- powder<br>( <i>mordant red 3</i> )<br><br>$C_{14}H_7NaO_7S(s)$                                                                          | B                      | 2  | 1  | 0  | May cause severe irritation of skin, eyes, digestive and respiratory tracts; harmful if swallowed or inhaled; combustible if heated or ignited, powder-air mixture is explosive. | NC          | 8             | NR               | T or D(aq)       |

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| 2243-76-7  | Alizarin yellow R (acid) -- powder<br>$C_{13}H_9N_3O_5$                                           |                        |    |    |               |                                                                                                                                                                                                                                                                   |             |               |                  |                  |
| 1718-34-9  | Alizarin Yellow R, Sodium Salt $C_{13}H_8NaO_5N_3(s)$                                             | B                      | 2  | 1  | 0             | Causes severe eye and skin irritation, irritating to the mucous membranes and upper respiratory tract; may be harmful if swallowed or inhaled; combustible if heated or ignited, dust-air mixture explosive.                                                      | NC          | 8             | NR               | T or D(aq)       |
| 7784-24-9  | alum ----- powder<br>(aluminium potassium-sulfate dodecahydrate)<br>$KAl(SO_4)_2 \cdot 12H_2O(s)$ | A                      | 2  | 0  | 0             | Causes irritation of skin, eyes and respiratory tract; harmful if swallowed or inhaled.                                                                                                                                                                           | D2          | 8             | NR               | T or D(aq)       |
| 569-58-4   | aluminon ----- crystals<br>(ammonium aurintricarboxylate)<br>$C_{22}H_{23}N_3O_9(s)$              | B                      | 2  | 1  | 0             | Causes minor irritation of the skin and eyes; harmful by ingestion or inhalation; flammable if heated.                                                                                                                                                            | D2          | 8             | NR               | T or D(aq)       |
| 7429-90-5  | aluminium ----- foil or strips<br><br>Al(s)                                                       | A                      | 0  | 1  | 0             | Metal strips or foil has no adverse effects; strips will readily burn if ignited.                                                                                                                                                                                 | B           | 8             | NR               | R or T           |
| 7429-90-5  | aluminium ----- powder<br><br>Al(s)                                                               | B                      | 1  | 1  | $\frac{1}{W}$ | Metal powder may be irritating to eyes and respiratory system; not readily absorbed through skin, digestive tract or the lungs; chronic exposure may cause lung damage; powder readily burns or explodes if ignited; reacts slowly with water to liberate $H_2$ . | B           | 8             | NR               | R or T           |

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| n/a        | aluminium acetate (basic)----- powder<br><u>mixture:</u><br>$\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_2\text{OH}(\text{s})$ ---- 30%<br>$\text{Al}_2\text{O}_3(\text{s})$ ----- 70% | A                      | 1  | 1  | 0                 | Nuisance dust; may cause irritation to eyes, skin and respiratory tract; may be harmful if swallowed or inhaled; dust-air mixture is explosive.         | NC          | 8             | NR               | T or D           |
| 7784-25-0  | aluminium ammonium sulfate dodecahydrate ---- powder<br>( <i>ammonium alum</i> )<br>$\text{AlNH}_4(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}(\text{s})$                              | A                      | 1  | 0  | 0                 | May cause eye, skin, respiratory and/or digestive tract irritation; prolonged exposure may cause liver damage.                                          | NC          | 8             | NR               | T or D(aq)       |
| 1299-86-1  | aluminium carbide ----- powder<br>$\text{Al}_4\text{C}_3(\text{s})$                                                                                                                  | C                      | 1  | 3  | 1                 | Causes irritation of eyes, mucus membranes and upper respiratory tract; highly flammable solid; contact with water liberates extremely flammable gases. | B           | 4             | 4.3              | WF/I             |
| 14455-29-9 | aluminium carbonate ----- powder<br>$\text{Al}_2(\text{CO}_3)_3(\text{s})$                                                                                                           | A                      | 0  | 0  | 0                 | No adverse effects.                                                                                                                                     | NC          | 8             | NR               | T or D(aq)       |
| 7446-70-0  | aluminium chloride, anhydrous ----- powder<br>$\text{AlCl}_3(\text{s})$                                                                                                              | C                      | 3  | 0  | 2<br><del>W</del> | Corrosive; causes irritation and burns to skin, eyes, respiratory and digestive tracts; reacts violently with water forming HCl.                        | D2, E, F    | 8             | 8                | WF/I or N/P-T    |
| 21645-51-2 | aluminium hydroxide ----- powder<br>( <i>aluminium hydrate</i> )                                                                                                                     | A                      | 1  | 0  | 0                 | Causes irritation of eyes and respiratory tract.                                                                                                        | NC          | 2             | NR               | WF/I or N/P-T    |

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|            | $\text{Al}(\text{OH})_3(\text{s})$                                                                                                             |                           |    |    |         |                                                                                                                                                                                         |             |               |                  |                  |
| 7784-27-2  | aluminium nitrate nonahydrate ----- crystals<br>$\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}(\text{s})$                                 | B - soln.<br>C - crystals | 2  | 0  | 0<br>OX | Causes irritation of skin, eyes and respiratory system; harmful if ingested or inhaled; strong oxidizing agent; can react violently as a result of shock or friction.                   | C, D1, D2   | 6             | 5.1              | WF/I             |
| 1344-28-1  | aluminium oxide -- powder<br>$\text{Al}_2\text{O}_3(\text{s})$                                                                                 | A                         | 2  | 0  | 0       | May irritate eyes and respiratory system; may be harmful if swallowed or inhaled.                                                                                                       | NC          | 8             | NR               | T                |
| 7784-30-7  | aluminium phosphate ----- powder<br>$\text{AlPO}_4(\text{s})$                                                                                  | B - soln.<br>C - powder   | 3  | 0  | 0       | Corrosive; causes skin and eye burns and severe damage to digestive tract if ingested; causes severe irritation and possible burns to mucous membranes of respiratory tract if inhaled. | D1, E       | 8             | NR               | WF/I             |
| 7784-24-9  | aluminium potassium sulfate dodecahydrate----- crystals<br>( <i>alum</i> )<br>$\text{AlK}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}(\text{s})$ | A                         | 2  | 0  | 0       | Causes irritation of skin, eyes and respiratory tract; harmful if swallowed or inhaled.                                                                                                 | D2          | 8             | NR               | WF/I or N/P-T    |
| 10102-71-3 | aluminium sodium sulfate ----- powder<br>$\text{NaAl}(\text{SO}_4)_2(\text{s})$                                                                | A                         | 1  | 0  | 0       | May cause mild irritation of the skin, eyes, respiratory and digestive tracts if inhaled or ingested.                                                                                   | NC          | 8             | NR               | WF/I or N/P-T    |
| 10043-01-3 | aluminium sulfate- powder<br>$\text{Al}_2(\text{SO}_4)_3(\text{s})$                                                                            | A                         | 2  | 0  | 0       | May irritate skin; severe eye irritant; harmful if inhaled, ingested or                                                                                                                 | E           | 8             | NR               | WF/I or N/P-T    |

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|            |                                                                                                                                                                     |                        |    |    |               | absorbed through skin.                                                                                                                                                                                                |             |               |                  |                  |
| 1302-81-4  | aluminium sulfide-granules<br><br>$\text{Al}_2\text{S}_3(\text{s})$                                                                                                 | C                      | 1  | 0  | 2<br><u>W</u> | Irritating to skin, eyes and mucous membranes; reacts violently with water and acid-producing toxic $\text{H}_2\text{S}$ .                                                                                            | F           | 8             | 4.3              | WF/I             |
| 7664-41-7  | ammonia, anhydrous----- gas (liquid under pressure)<br><br>$\text{NH}_3(\text{g})$ & $\text{NH}_3(\text{l})$                                                        | C                      | 3  | 1  | 0             | Corrosive liquid and gas; irritating and causes burns to eyes and skin; may cause burns if ingested or inhaled; flammable vapour, air-gas mixture explosive.                                                          | E           | 2, 8          | 2.2 (8)          | WF/I             |
| 7664-41-7  | ammonia water---- solution (household ammonia) <u>mixture</u> :<br>$\text{NH}_3$ ----- 10%<br>$\text{H}_2\text{O}$ ----- 90%<br>$\text{NH}_3(\text{aq})$            | A                      | 2  | 0  | 0             | Irritating to skin and mucous membranes; may cause burns with prolonged exposure; harmful if swallowed, absorbed through skin or with inhalation of fumes.                                                            | E           | 2, 8          | 8                | WF/I             |
| 1336-21-6  | ammonia water---- solution (ammonium hydroxide) <u>mixture</u> :<br>$\text{NH}_4$ ----- 25 - 30%<br>$\text{H}_2\text{O}$ ----- 70 - 75%<br>$\text{NH}_5(\text{aq})$ | B                      | 2  | 1  | 0             | Irritating to skin and mucous membranes; may cause burns with prolonged exposure; harmful if swallowed, absorbed through skin or with inhalation of fumes; vapours flammable, concentrated air-gas mixture explosive. | E           | 2, 8          | 8                | WF/I             |

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| 631-61-8   | ammonium acetate -----<br>crystals<br><br>$\text{CH}_3\text{COONH}_4(\text{s})$ | B                      | 1  | 1  | 0  | May cause irritation to eyes, skin, digestive and respiratory tracts; flammable if heated or ignited, particle-air mixture explosive.                                                   | D2          | 8             | NR               | T or D(aq)       |
| 12124-97-9 | ammonium bromide----- crystals<br><br>$\text{NH}_4\text{Br}(\text{s})$          | A                      | 2  | 0  | 0  | Causes irritation of skin, eye and mucous membranes of the respiratory tract; harmful by ingestion, inhalation or absorption through skin; affects the central nervous system and eyes. | D2          | 8             | NR               | T or D(aq)       |
| 506-87-6   | ammonium carbonate ----- powder<br><br>$(\text{NH}_4)_2\text{CO}_3(\text{s})$   | B                      | 2  | 0  | 2  | Causes irritation of skin, eye and respiratory tract; harmful if swallowed or inhaled; unstable upon exposure to air; converts to ammonium bicarbonate.                                 | D2          | 8             | NR               | T or D(aq)       |
| 12125-02-9 | ammonium chloride-----<br>powder<br>$\text{NH}_4\text{Cl}(\text{s})$            | A                      | 2  | 0  | 0  | Irritating to skin, eyes and respiratory tract; harmful if swallowed or inhaled.                                                                                                        | D2          | 8             | NR               | T or D(aq)       |

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| 7788-98-9  | ammonium chromate -----<br>crystals<br><br>(NH <sub>4</sub> ) <sub>2</sub> CrO <sub>4</sub> (s)                                                  | B - soln.<br>C - crystals | 3  | 0  | 0<br>OX | Corrosive; causes severe irritation, burns to skin, eyes and mucous membranes; may be fatal by ingestion, inhalation or skin absorption; strong oxidizing agent, may explode when heated; mutagen; human carcinogen.               | D1,<br>D2, C,<br>E | 6             | 9                | WF/I             |
| 7789-09-5  | ammonium dichromate -----<br>crystals<br><br>(NH <sub>4</sub> ) <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> (s)                                  | B - soln.<br>C - crystals | 3  | 1  | 1<br>OX | Corrosive; causes severe skin and eye irritation and burns to any area of contact; toxic by inhalation or ingestion; very strong oxidizing agent; combustible solid if ignited, also decomposes if heated; known human carcinogen. | D1,<br>D2, C,<br>E | 6             | 5.1              | WF/I or<br>N/P-T |
| 7722-76-1  | ammonium dihydrogen phosphate -----<br>crystals<br>( <i>ammonium phosphate monobasic</i> )<br>NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> (s) | B                         | 2  | 0  | 1       | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled.                                                                                                                                            | NC                 | 8             | NR               | WF/I             |
| 7783-85-9  | ammonium ferrous sulfate hexahydrate -----<br>crystals<br>( <i>mohr's salt, ammonium iron(II)sulfate hexahydrate</i> )                           | B                         | 2  | 0  | 1       | May cause irritation of the skin, eyes, respiratory and intestinal tracts; may be harmful by inhalation or skin absorption; ingestion may cause iron poisoning, larger intakes can cause liver and kidney damage                   | D1                 | 8             | 9                | WF/I             |

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|            | (NH <sub>4</sub> ) <sub>2</sub> FeSO <sub>4</sub> •6H <sub>2</sub> O(s)                                                                         |                          |    |    |    | and other complications; unstable, air and light sensitive.                                                                                                                                                      |             |               |                  |                  |
| 12125-01-8 | ammonium fluoride -----<br>crystals<br><br>NH <sub>4</sub> F(s)                                                                                 | D                        | 3  | 0  | 0  | Corrosive; causes severe burns to skin, eyes, respiratory and digestive tracts; may be fatal by ingestion, inhalation or skin absorption; symptomatic effects may be delayed without sensation or onset of pain. | E           | 8             | 6.1              | WF/I             |
| 1066-33-7  | ammonium hydrogen carbonate -----<br>powder<br>( <i>ammonium bicarbonate</i> )<br>NH <sub>4</sub> HCO <sub>3</sub> (s)                          | A                        | 1  | 0  | 0  | Mildly irritating to eyes and respiratory membranes; ingestion can cause nausea and vomiting.                                                                                                                    | NC          | 8             | NR               | T or D(aq)       |
| 7783-28-0  | ammonium hydrogen phosphate -----<br>crystals<br>( <i>ammonium phosphate, dibasic</i> )<br>(NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub> (s) | B                        | 2  | 0  | 0  | Causes skin and eye irritation, may damage cornea; causes respiratory and intestinal tract irritation.                                                                                                           | NC          | 8             | NR               | WF/I             |
| 1336-21-6  | ammonium hydroxide -----<br>solution<br>( <i>ammonia water</i> )<br><br>NH <sub>5</sub> (aq)                                                    | B - soln.<br>C - crystal | 3  | 1  | 0  | Corrosive; causes severe burns to skin, eyes and gastro-intestinal tract, if ingested; inhalation causes severe irritation and inflammation of respiratory membranes; concentrated fumes explosive.              | E           | 2             | 8                | N/P-D            |
| 12054-85-2 | ammonium molybdate                                                                                                                              | B                        | 2  | 0  | 0  | Causes irritation to skin,                                                                                                                                                                                       |             | 8             | NR               | T or             |

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|            | tetrahydrate -----<br>crystals<br>$(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \bullet 4\text{H}_2\text{O}(\text{s})$                   |                        |    |    |         | eyes and respiratory tract; may be harmful if swallowed or inhaled; extended exposure affects kidneys and blood.                                                                                                                                                                                          | NC          |               |                  | D(aq)            |
| 6484-52-2  | ammonium nitrate–<br>crystals<br><br>$\text{NH}_4\text{NO}_3(\text{s})$                                                             | B                      | 2  | 0  | 3<br>OX | Causes irritation to skin, eyes and respiratory tract; may be harmful if swallowed or inhaled; strong oxidizer; may decompose if heated; will explode if heated to 210°C; explodes more readily if contaminated with combustible material.                                                                | C, D2       | 6             | 5.1              | WF/I             |
| 6009-70-7  | ammonium oxalate<br>monohydrate -----<br>granules<br><br>$(\text{NH}_4)_2\text{C}_2\text{O}_4 \bullet \text{H}_2\text{O}(\text{s})$ | D                      | 4  | 1  | 0       | Toxic and corrosive; inhalation may be fatal due to spasm, inflammation and edema; extremely destructive to tissue of the mucous membranes and upper respiratory tract; causes severe burns to skin, eyes and gastro-intestinal tract, if ingested; may affect kidneys; combustible if heated or ignited. | E           | 8             | 8                | WF/I             |
| 7783-20-2  | ammonium sulfate-<br>crystals<br><br>$(\text{NH}_4)_2\text{SO}_4(\text{s})$                                                         | A                      | 2  | 0  | 0       | Skin, eye and respiratory irritant; may be harmful by inhalation, ingestion or skin absorption.                                                                                                                                                                                                           | D2          | 8             | NR               | T or D(aq)       |

| CAS Number | Chemical Name(s), State and Formula                                                                                     | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class  | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|-------------------|------------------|
| 12135-76-1 | ammonium sulfide -- liquid<br><br>(NH <sub>4</sub> ) <sub>2</sub> S(l)                                                  | D                      | 3  | 3  | 1  | Corrosive; strong skin, eye and mucous membrane irritant, causes burns to any area of contact; may be fatal if swallowed or inhaled; harmful if absorbed through skin; highly flammable liquid and vapour; toxic hydrogen sulfide gas is released when heated. | B, D2       | 5             | 8<br>(3)<br>(6.1) | WF/I             |
| 7783-11-1  | ammonium sulfite monohydrate ----- crystals<br><br>(NH <sub>4</sub> ) <sub>2</sub> SO <sub>3</sub> •H <sub>2</sub> O(s) | B                      | 2  | 0  | 0  | Causes irritation of eyes, skin, mucous membranes and upper respiratory tract; may be harmful by inhalation, ingestion or skin absorption.                                                                                                                     | NC          | 8             | NR                | T or D(aq)       |
| 1762-95-4  | ammonium thiocyanate ----- crystals<br><br>NH <sub>4</sub> SCN(s)                                                       | B                      | 2  | 0  | 1  | May cause irritation of skin, eyes and/or respiratory tract; harmful if swallowed, inhaled or absorbed through skin; emits toxic fumes when heated or in contact with acids.                                                                                   | NC          | 8             | NR                | T or D(aq)       |
| 7783-18-8  | ammonium thiosulfate ----- powder<br><br>(NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (s)              | B                      | 2  | 0  | 1  | Irritating to skin, eyes and respiratory system; harmful if inhaled, swallowed, or in contact with skin; decomposes and emits toxic gases when heated to temperatures above 104.4°C.                                                                           | NC          | 8             | NR                | T or D(aq)       |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                             | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7803-55-6  | ammonium vanadate ----- granules<br><br>$\text{NH}_4\text{VO}_3(\text{s})$                                                                                                                         | D                      | 3  | 0  | 0  | Highly toxic fume, mist and dust; may be fatal if inhaled or ingested; causes irritation to skin, eyes and respiratory tract; may damage lung tissue and bronchial airways.                                                                         | D1          | 8             | 6.1              | WF/I             |
| 628-63-7   | amyl acetate ----- liquid<br>( <i>n</i> -amyl acetate)<br><br>$\text{C}_7\text{H}_{14}\text{O}_2$ or $\text{CH}_3\text{COOC}_5\text{H}_{11}(\text{l})$                                             | C                      | 2  | 3  | 0  | Causes irritation to the eyes, skin and respiratory tract; harmful if swallowed or inhaled; highly flammable liquid and vapour.                                                                                                                     | B, D1       | 5             | 3                | WF/I             |
| 123-51-3   | <i>iso</i> - amyl alcohol ---- liquid<br>( <i>isopentyl alcohol</i> )<br><br>$\text{C}_5\text{H}_{12}\text{O}(\text{l})$ <u>or</u><br>$(\text{CH}_3)_2\text{CHCH}_2\text{CH}_2\text{OH}(\text{l})$ | B                      | 2  | 2  | 0  | Causes irritation to skin, mucous membranes and respiratory tract; severe irritant to eyes; harmful if swallowed, inhaled or ingested; hematotoxic; affects the central nervous system; flammable liquid and vapour; emits toxic fumes when burned. | B, D2       | 5             | 3                | WF/I             |
| 71-41-0    | <i>n</i> -amyl alcohol ----- liquid<br>( <i>1-pentanol</i> , <i>n-pentyl alcohol</i> )<br><br>$\text{C}_5\text{H}_{11}\text{OH}(\text{l})$                                                         | B                      | 2  | 3  | 0  | Liquid causes skin and severe eye irritation with possible burns; vapours cause severe irritation of the respiratory tract; harmful if inhaled, swallowed or absorbed through skin; affects the nervous system; flammable liquid and                | B, D2       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                  | Use in School Category     | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                                                      |                            |    |    |    | vapour.                                                                                                                                                                                                                                                                                                                         |             |               |                  |                  |
| 9000-92-4  | amylase -----<br>powder<br><br>composition - variable                                                                                | B                          | 1  | 1  | 0  | May cause irritation of skin, eyes and respiratory tract; low ingestion hazard; dust-air mixture explosive.                                                                                                                                                                                                                     | NC          | 8             | NR               | T or D(aq)       |
| 62-53-3    | aniline -----<br>liquid<br>( <i>amino benzene</i> ,<br><i>benzenamine</i> )<br><br>C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub> (l) | B - soln.<br>C - pure liq. | 3  | 2  | 0  | Toxic; may be fatal by ingestion, inhalation and skin absorption; causes irritation to skin and respiratory tract; severe irritant to eyes; combustible liquid and vapour; mutagen.                                                                                                                                             | B, D1       | 5             | 6.1              | WF/I or N/P-D    |
| 7440-36-0  | antimony ----- solid<br><br><br>Sb(s)                                                                                                | B                          | 2  | 1  | 0  | Dust causes skin, eye digestive and respiratory irritation; prolonged exposure may cause blood abnormalities and cardiac disturbances; inhalation of fumes causes metal-fume fever; chronic inhalation may cause liver, kidney and cardiac changes; bulk metal combustible at high temperatures; dust-air mixture is explosive. | D1, E       | 8             | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                               | Use in School Category  | H* | F* | R*                | Hazards                                                                                                                                                                                                                   | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------------|-------------------------|----|----|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7647-18-9  | antimony pentachloride -----<br>liquid<br>( <i>antimony perchloride</i> )<br><br>$\text{SbCl}_5(\text{l})$        | D                       | 3  | 0  | 1<br><del>W</del> | Corrosive; liquid causes severe burns to skin and eyes; extremely destructive to tissues of the mucous membranes and upper respiratory tract; may be fatal if ingested, inhaled or absorbed through skin; water reactive. | D1, E       | 8             | 8                | WF/I             |
| 7446-32-4  | antimony sulfate-----<br>powder<br>( <i>diantimony trisulfate</i> )<br><br>$\text{Sb}_2(\text{SO}_4)_3(\text{s})$ | B                       | 2  | 0  | 1                 | May cause skin, eye and/or respiratory tract irritation; harmful if swallowed, inhaled or absorbed through skin; chronic exposure may cause liver and kidney damage; decomposes if heated.                                | D2          | 8             | 6.1              | WF/I             |
| 1345-04-6  | antimony sulfide -----<br>powder ( <i>diantimony trisulfide</i> )<br>$\text{Sb}_2\text{S}_3(\text{s})$            | B - soln.<br>C - powder | 2  | 1  | 0                 | Causes irritation of skin, eye and mucus membranes of upper respiratory tract; harmful if inhaled, ingested or absorbed through skin; possible carcinogen; particle-air mixture explosive.                                | D2          | 8             | NR               | WF/I             |
| 10025-91-9 | antimony trichloride -----<br>crystals<br>( <i>trichlorostibine</i> )                                             | D                       | 3  | 0  | 1<br><del>W</del> | Corrosive; contact with skin and eyes causes severe irritation or burns; harmful if inhaled, ingested or absorbed through skin; inhalation of                                                                             | E           | 8             | 8                | WF/I             |

| CAS Number                                                | Chemical Name(s), State and Formula                                                                                                                                                                                                                                                                 | Use in School Category    | H* | F* | R* | Hazards                                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|                                                           | SbCl <sub>3</sub> (s)                                                                                                                                                                                                                                                                               |                           |    |    |    | dust may cause dizziness and difficulty breathing; ingestion causes nausea, vomiting and loss of consciousness; water reactive, releases heat and toxic fumes.                                                  |             |               |                  |                  |
| 1309-64-4                                                 | antimony trioxide-- crystals<br>( <i>diantimony trioxide</i> )<br><br>Sb <sub>2</sub> O <sub>3</sub> (s)                                                                                                                                                                                            | B - soln.<br>C - crystals | 2  | 1  | 0  | Causes irritation to skin, eyes, digestive and respiratory tracts; harmful if swallowed or inhaled; prolonged exposure affects the cardiovascular system and liver; powdered form flammable if heated; mutagen. | D2          | 8             | 6.1              | WF/I             |
| 64476-38-6<br><br>(1306-05-4,<br>12015-72-4<br>1306-06-5) | apatite – group minerals--<br>----- crystalline<br>( <i>fluorapatite</i><br><i>Ca<sub>5</sub>F(PO<sub>4</sub>)<sub>3</sub></i> ;<br><i>chlorapatite</i><br><i>Ca<sub>5</sub>Cl(PO<sub>4</sub>)<sub>3</sub></i> ;<br><i>hydroxylapatite</i> )<br>Ca <sub>5</sub> (PO <sub>4</sub> ) <sub>3</sub> (s) | A                         | 1  | 0  | 0  | Dust may cause irritation of skin, eyes, respiratory and digestive tracts.                                                                                                                                      | NC          | 8             | NR               | T                |
| 5328-37-0                                                 | L(+) arabinose ----<br>crystals<br>( <i>pectin sugar</i> )<br>C <sub>5</sub> H <sub>10</sub> O <sub>5</sub> (s)                                                                                                                                                                                     | A                         | 0  | 1  | 0  | No adverse effects; flammable if heated or ignited; dust-air mixture explosive.                                                                                                                                 | NC          | 8             | NR               | T                |
| 74-79-3                                                   | L-arginine -----<br>powder<br>C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub> (s)                                                                                                                                                                                                      | A                         | 0  | 1  | 0  | No adverse effects; flammable if heated or ignited.                                                                                                                                                             | NC          | 8             | NR               | T                |
| 7440-37-1                                                 | argon -----<br>gas                                                                                                                                                                                                                                                                                  | A                         | 2  | 0  | 0  | Nontoxic but may produce suffocation by displacing the oxygen in the air.                                                                                                                                       | NC          | 8             | NR               | A                |

| CAS Number | Chemical Name(s), State and Formula                                                               | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                           | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | Ar(g)                                                                                             |                        |    |    |    |                                                                                                                                                                                                                                   |             |               |                  |                  |
| 7440-38-2  | arsenic --- powder or lump<br><br>As(s)                                                           | D                      | 4  | 1  | 0  | Very strong neurotoxin; may be fatal if powder inhaled, or if swallowed or absorbed through the skin; known human carcinogen; may cause reproductive disorders; dust-air mixture is slightly explosive.                           | D1          | 8             | 6.1              | WF/I             |
| 1303-28-2  | arsenic pentoxide-powder<br>( <i>diarsenic pentaoxide</i> )<br>As <sub>2</sub> O <sub>5</sub> (s) | D                      | 3  | 0  | 0  | Toxic by inhalation and/or ingestion; mutagen; may be a human carcinogen.                                                                                                                                                         | D1,<br>D2   | 8             | 6.1              | WF/I             |
| 7784-34-1  | arsenic trichloride --- liquid<br>( <i>trichloroarsine</i> )<br><br>AsCl <sub>3</sub> (l)         | D                      | 3  | 0  | 0  | Toxic; may cause skin, eye, respiratory and digestive tract irritation; may be fatal if swallowed; may cause cardiac disturbances, and/or liver and kidney damage; may cause central nervous system depression; human carcinogen. | D1,<br>D2   | 8             | 6.1              | WF/I             |

| CAS Number                                              | Chemical Name(s), State and Formula                                                                                                                                                                                                                                 | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 1327-53-3                                               | arsenic trioxide ---- powder<br>(diarsenic trichloride)<br><br>As <sub>2</sub> O <sub>3</sub> (s)                                                                                                                                                                   | D                      | 3  | 0  | 0  | Toxic; causes skin and eye irritation; causes severe respiratory and digestive tract irritation or burns; highly toxic by ingestion and inhalation; may cause lung damage and cause central nervous system effects; may have adverse reproductive and fetal effects; human carcinogen. | D1, D2      | 8             | 6.1              | WF/I             |
| 1332-21-4<br><br>12001-29-5 & 132207-32-0<br>12172-73-5 | asbestos ----- fibrous solid <u>mixture</u> : silicates of Na, Mg, and Ca; most commonly chrysotile - Mg <sub>3</sub> (Si <sub>2</sub> O <sub>5</sub> )(OH) <sub>4</sub><br><br>amosite (MgFe) <sub>7</sub> (Si <sub>8</sub> O <sub>22</sub> )(OH) <sub>2</sub> (s) | D                      | 1  | 0  | 0  | Causes irritation of the eyes, nose and throat; prolonged inhalation of particles cause asbestosis and cancer.                                                                                                                                                                         | D2          | 8             | 9                | WF/I             |
| 50-81-7                                                 | ascorbic acid ----- crystals<br>(vitamin C)<br>C <sub>6</sub> H <sub>8</sub> O <sub>6</sub> (s)                                                                                                                                                                     | A                      | 1  | 1  | 0  | May cause mild irritations of the skin, eyes and respiratory tract; flammable if heated or ignited.                                                                                                                                                                                    | NC          | 3             | NR               | T or D(aq)       |
| 5794-13-8                                               | L-asparagine monohydrate ----- crystals<br>C <sub>4</sub> H <sub>8</sub> O <sub>3</sub> N <sub>2</sub> •H <sub>2</sub> O(s)                                                                                                                                         | A                      | 0  | 1  | 0  | No adverse effects; flammable if heated or ignited.                                                                                                                                                                                                                                    | NC          | 8             | NR               | T                |
| 56-84-8                                                 | L-aspartic acid ---- crystals<br>C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub> (s)                                                                                                                                                                                  | A                      | 0  | 1  | 0  | No adverse effects; flammable if heated or ignited.                                                                                                                                                                                                                                    | NC          | 3             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                    | Use in School Category  | H* | F* | R*            | Hazards                                                                                                                                                                                              | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------|-------------------------|----|----|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 531-53-3   | azure A ----- powder<br>$C_{14}H_{14}ClN_3S(s)$                                        | A                       | 2  | 0  | 0             | May cause irritation of the eyes, skin and respiratory system; may be harmful if swallowed or inhaled.                                                                                               | NC          | 8             | NR               | T                |
| 531-55-5   | azure B ----- powder<br>(azure I)<br>$C_{15}H_{16}ClN_3S(s)$                           | A                       | 2  | 0  | 0             | May cause irritation of the eyes, skin and respiratory system; may be harmful if swallowed or inhaled.                                                                                               | NC          | 8             | NR               | T                |
| 144-55-8   | baking soda ----- powder<br>(sodium hydrogen carbonate or bicarbonate)<br>$NaHCO_3(s)$ | A                       | 1  | 0  | 0             | May cause slight irritation of the eyes, skin and respiratory tract.                                                                                                                                 | NC          | 8             | NR               | T or D(aq)       |
| 7440-39-3  | barium ---- powder or solid<br>$Ba(s)$                                                 | C - solid<br>D - powder | 3  | 1  | 2<br><u>W</u> | Toxic; poisonous if powder inhaled or ingested; reacts violently with water and acids; flammable if heated.                                                                                          | D1, F       | 8             | 4.3              | WF/I             |
| 513-77-9   | barium carbonate-- powder<br>$BaCO_3(s)$                                               | B                       | 2  | 0  | 0             | May cause irritation of the skin, eyes and respiratory tract; harmful if inhaled, may be fatal if swallowed; prolonged exposure affects muscles and central nervous system, may cause kidney damage. | D1          | 8             | 6.1              | N/P-T or WF/I    |
| 10326-27-9 | barium chloride dihydrate ----- solid<br>$BaCl_2 \cdot 2H_2O(s)$                       | B - soln.<br>C - solid  | 3  | 0  | 0             | Toxic; may cause irritation to skin, eyes and respiratory tract; may be fatal if swallowed, harmful if inhaled; prolonged exposure affects heart, respiratory system and central nervous system.     | D1, D2      | 8             | 6.1              | N/P-T or WF/I    |

| CAS Number | Chemical Name(s), State and Formula                                                                | Use in School Category  | H* | F* | R* | Hazards                                                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------|-------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 13718-50-8 | barium iodide ----- beads<br><br>$\text{BaI}_2(\text{s})$                                          | B                       | 2  | 0  | 0  | Irritant to eyes, skin and mucous membranes; harmful if inhaled or swallowed; chronic exposure can cause severe gastroenteritis, slow or irregular heartbeat.                                                                   | D2          | 8             | 6.1              | N/P-T or WF/I    |
| 1304-29-6  | barium(IV) oxide -- powder<br>( <i>barium peroxide</i> )<br><br>$\text{BaO}_2(\text{s})$           | B - soln.<br>C - powder | 3  | 0  | 1  | Toxic; skin or eye contact may lead to severe irritation or burns; may be fatal if swallowed; chronic exposure may lead to damage to CNS, spleen, liver, kidney and/or bone marrow; decomposes slowly in the presence of water. | D1, D2      | 8             | 6.1              | WF/I             |
| 17194-00-2 | barium hydroxide - crystals<br>( <i>barium hydrate</i> )<br><br>$\text{Ba}(\text{OH})_2(\text{s})$ | B                       | 3  | 0  | 0  | Toxic; causes irritation of the skin, eyes and respiratory tract; may be fatal if swallowed, harmful if inhaled; prolonged exposure affects muscles and central nervous system.                                                 | D1, E       | 2             | 6.1              | N/P-T or WF/I    |
| 13718-50-8 | barium iodide ----- crystals<br><br>$\text{BaI}_2(\text{s})$                                       | B                       | 2  | 0  | 0  | Causes irritation of the skin, eyes and mucous membranes; harmful if inhaled or swallowed; ingestion causes severe abdominal pain, vomiting, diarrhea, tremors and slow or irregular heartbeat.                                 | D1          | 8             | 6.1              | N/P-T or WF/I    |

| CAS Number | Chemical Name(s), State and Formula                                                               | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                             | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------|------------------------|----|----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 10022-31-8 | barium nitrate ----- crystals<br>(black ash)<br><br>Ba(NO <sub>3</sub> ) <sub>2</sub> (s)         | B                      | 3  | 0  | 0<br>OX | Toxic; causes irritation of the skin, eyes and respiratory tract; may be fatal if swallowed, harmful if inhaled; prolonged exposure affects muscles and central nervous system; strong oxidizer, may cause fire if in contact with reducing agents or combustibles. | C, D1, D2   | 6             | 5.1<br>(6.1)     | WF/I             |
| 21109-95-5 | barium sulfide ---- crystals<br><br>BaS(s)                                                        | B                      | 2  | 1  | 1       | Irritates and burns skin and eyes; harmful by ingestion or inhalation; acute over-exposure may be fatal; causes hair loss; decomposes when heated to produce toxic gas; particle-air mixture is combustible.                                                        | D1, D2      | 8             | 6.1              | WF/I             |
| 1318-16-7  | bauxite -- chunks/granules<br><u>mixture</u> :<br>aluminium silicates & oxides of Al, Si, Ti & Fe | A                      | 1  | 0  | 0       | Can cause mild irritation to skin, eyes, respiratory and digestive tracts; silicates known to be carcinogenic in humans with prolonged exposure.                                                                                                                    | NC          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                                                   | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                  | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a        | Benedict's qualitative reagent -----<br>solution<br><u>mixture of:</u><br>H <sub>2</sub> O ----- 73.5%<br>NaCO <sub>3</sub> ----- 10.0%,<br>CuSO <sub>4</sub> ----- 1.5%,<br>NaC <sub>6</sub> H <sub>5</sub> O <sub>7</sub> --- 15.0% | B                      | 2  | 0  | 0  | Causes severe irritation of the skin and eyes, as well as the respiratory and digestive tract if ingested or inhaled; long-term exposure may corrode the digestive tract with hemorrhaging and shock; may cause liver and kidney damage or cause adverse reproductive and fetal effects. | D2          | 8             | 6.1              | WF/I or N/P-D    |
| 100-52-7   | benzaldehyde -----<br>liquid<br>( <i>benzoic aldehyde</i> )<br><br>C <sub>6</sub> H <sub>5</sub> CHO(l)                                                                                                                               | B                      | 2  | 2  | 0  | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed or inhaled, prolonged exposure may cause central nervous system depression that can lead to unconsciousness, coma and possible death due to respiratory failure; combustible liquid.                     | B, D1, D2   | 5             | NR               | WF/I             |
| 569-64-2   | benzaldehyde green -----<br>crystals<br>( <i>malachite green</i> )<br>C <sub>23</sub> H <sub>25</sub> ClN <sub>2</sub> (s)                                                                                                            | B                      | 1  | 1  | 1  | Contact with skin or eyes may cause irritation; ingestion may be harmful; flammable if heated; light sensitive.<br><u>Note:</u> Two forms—oxalate and chloride.                                                                                                                          | NC          | 8             | 6.1              | WF/I             |
| 71-43-2    | benzene -----<br>liquid<br><br>C <sub>6</sub> H <sub>6</sub> (l)                                                                                                                                                                      | D                      | 3  | 3  | 0  | Toxic; causes irritation of the skin, eyes and respiratory tract; toxic by ingestion, inhalation and skin absorption,                                                                                                                                                                    | B, D1, D2   | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                   | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
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|            |                                                                                                                                       |                        |    |    |         | depresses the central nervous system; highly flammable; human carcinogen.                                                                                                                                                                                       |             |               |                  |                  |
| 98-11-3    | benzenesulfonic acid ----- crystals<br>( <i>phenylsulfonic acid</i> )<br>$C_6H_5SO_3H \bullet$ (s)                                    | D                      | 3  | 0  | 0       | Corrosive; causes burns to any area of contact; harmful if swallowed, inhaled or absorbed through the skin.                                                                                                                                                     | E           | 3             | 8                | WF/I             |
| 65-85-0    | benzoic acid ----- crystals<br>( <i>benzenecarboxylic acid, phenylformic acid</i> )<br>$C_7H_6O_2$ (s)                                | A                      | 2  | 1  | 0       | Causes moderate irritation of the skin and severe irritation and possible injury to eyes; may be harmful if swallowed, inhaled or absorbed through skin; combustible if heated.                                                                                 | D2          | 3             | NR               | T                |
| 94-36-0    | benzoyl peroxide - crystals<br>( <i>dibenzoyl peroxide, acetoxyl, nericur</i> )<br><br>( $C_6H_5CO$ ) <sub>2</sub> O <sub>2</sub> (s) | D                      | 2  | 3  | 3<br>OX | Irritant of skin, eyes and respiratory tract; harmful if swallowed or inhaled; possible mutagen and carcinogen; highly flammable; strong oxidizer, reaction with reducing compounds can cause fire; extremely explosive, sensitive to shock, friction and heat. | B, C, D2, F | 4,6           | 5.2              | WF/I             |
| 7440-41-7  | beryllium metal ----- lump<br><br>Be(s)                                                                                               | C                      | 3  | 1  | 0       | Very toxic if swallowed or inhaled; irritating to skin, eyes and respiratory system; human carcinogen.                                                                                                                                                          | D1, D2      | 8             | NR               | WF/I             |
| n/a        | beryllium                                                                                                                             | D                      | 3  |    |         | Very toxic; human                                                                                                                                                                                                                                               |             | -             | -                |                  |

| CAS Number | Chemical Name(s), State and Formula                                                                                          | Use in School Category | H*      | F* | R*      | Hazards                                                                                                                                                                                                            | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|----|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | salts -----<br>crystals                                                                                                      |                        | or<br>4 |    |         | carcinogens.                                                                                                                                                                                                       | D1,<br>D2   |               |                  | WF/I             |
| n/a        | bile salts ----- powder<br>(oxgall)<br>formula not applicable                                                                | A                      | 1       | 0  | 0       | Causes irritation to skin, eyes and respiratory tract; may cause allergic reaction if sensitive to proteolytic enzymes.                                                                                            | NC          | 8             | NR               | T                |
| 7440-69-9  | bismuth ----- powder<br>or lump<br><br>Bi(s)                                                                                 | B - lump<br>C - powder | 2       | 1  | 0       | May cause irritation of the skin, eyes, digestive and respiratory tracts, particularly in powder form; prolonged exposure affects the central nervous system; may cause liver and kidney damage; powder flammable. | NC          | 8             | NR               | T                |
| 7787-60-2  | bismuth chloride ----- crystals<br>( <i>bismuth trichloride</i> )<br>BiCl <sub>3</sub> (s)                                   | B                      | 2       | 0  | 1       | Causes irritation to skin, eyes and respiratory tract, may cause burns; decomposes in water to form bismuth oxychloride.                                                                                           | NC          | 8             | NR               | T                |
| 10361-44-1 | bismuth nitrate ---- crystals<br>( <i>bismuth ternitrate</i> )<br><br>Bi(NO <sub>3</sub> ) <sub>3</sub> (s)                  | B                      | 2       | 0  | 0<br>OX | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed; strong oxidizer; reaction with reducing agents or combustibles may cause ignition.                                                    | C           | 6             | 5.1              | WF/I             |
| 1304-76-3  | bismuth oxide ----- powder<br>( <i>dibismuth trioxide</i> ,<br><i>bismuth yellow</i> )<br>Bi <sub>2</sub> O <sub>3</sub> (s) | A                      | 0       | 0  | 0       | No adverse effects.                                                                                                                                                                                                | NC          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                     | Use in School Category | H* | F* | R*           | Hazards                                                                                                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a        | Biuret reagent -----<br>solution<br><u>mixture</u> :<br>NaOH ----- 28.00%<br>CuSO <sub>4</sub> ----- 0.12%<br>H <sub>2</sub> O ----- 71.88%             | A                      | 2  | 0  | 0            | Corrosive; harmful by inhalation, ingestion or skin absorption; causes burns of the skin, eyes, respiratory and digestive tract; irritation may lead to chemical pneumonitis and pulmonary edema.                                                                               | D2, E       | 2             | 8<br>(6.1)       | D                |
| 7681-52-9  | bleach -----<br>solution<br>( <i>sodium hypochlorite</i> )<br><u>mixture</u> :<br>H <sub>2</sub> O -----80 – 99%<br>NaClO----- 1 – 20%<br><br>NaClO(aq) | B                      | 2  | 0  | 2<br>ox      | Skin irritant, may cause burns to skin and eyes; harmful by inhalation, ingestion or through skin contact; light and temperature sensitive; decomposes with release of chlorine gas; oxidizer.                                                                                  | C, D1       | 6             | 8                | D                |
| 7778-54-3  | bleaching<br>powder -----<br>granules<br>( <i>calcium hypochlorite</i> )<br><br>Ca(ClO) <sub>2</sub> (s)                                                | B                      | 3  | 0  | 2<br>ox<br>W | Corrosive to eyes; minute amounts very harmful if ingested; extremely toxic if inhaled into lungs, burns mucous membranes; water reactive, emits toxic chlorine gas; rapidly decomposes on exposure to air; thermally unstable; oxidizer, decomposes at 180°C releasing oxygen. | C, D1, E    | 6             | 8                | D-(aq)<br>WF/I   |
| 1303-96-4  | borax ----- powder<br>( <i>sodium borate decahydrate</i> )<br>Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> •10H <sub>2</sub> O(s)                      | A                      | 2  | 0  | 0            | May cause irritation of skin, eyes and respiratory tract; harmful if inhaled or ingested.                                                                                                                                                                                       | NC          | 8             | NR               | T or D(aq)       |
| 10043-35-3 | boric acid -----                                                                                                                                        | A                      | 2  | 0  | 0            | May cause skin, eye and                                                                                                                                                                                                                                                         |             | 1             | NR               |                  |

| CAS Number | Chemical Name(s), State and Formula                                                                                               | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                              | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | crystals<br><br>H <sub>3</sub> BO <sub>3</sub> (s)                                                                                |                        |    |    |         | respiratory tract irritation; causes severe digestive tract irritation resulting in hemorrhaging and shock; may have adverse reproductive affects.                                                   | D2          |               |                  | T or D(aq)       |
| 7440-42-8  | boron --- powder or chunks<br><br>B(s)                                                                                            | C                      | 3  | 3  | 0       | Toxic by inhalation, ingestion or by skin absorption; irritant; may affect the CNS; highly flammable.                                                                                                | B, D1, D2   | 4             | 4.1              | WF/I             |
| 12597-71-6 | brass ----- solid<br><u>mixture:</u><br>copper---- variable (2 parts)<br>zinc ----- variable (1 part)<br>other metals -- variable | A                      | 1  | 0  | 0       | Finished alloy is not hazardous. Dust or fume is classified as skin and eye irritant.                                                                                                                | C, D1       | 8             | NR               | R                |
| 7726-95-6  | bromine ----- liquid & gas<br><br>Br <sub>2</sub> (l) or Br <sub>2</sub> (g)                                                      | D                      | 3  | 0  | 0<br>OX | Highly toxic by skin contact, inhalation or ingestion; severe skin irritant, causes severe burns; very strong oxidizer; reacts violently with many organic compounds.                                | D1          | 6,7           | 8<br>(6.1)       | WF/I or N/P-D    |
| 7726-95-6  | bromine water – solution<br><br>Br(aq)                                                                                            | B                      | 3  | 0  | 0<br>OX | Corrosive vapour or mist; may cause irritation or severe burns to skin, eyes or respiratory tract; ingestion may cause digestive tract burns, abdominal pain, vomiting and possible death; oxidizer. | C, D1       | 6,7           | 8<br>(6.1)       | WF/I or N/P-D    |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                     | Use in School Category | H* | F* | R* | Hazards                                                                                                                       | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 76-60-8    | bromcresol green-----<br>powder<br><br>C <sub>21</sub> H <sub>14</sub> Br <sub>4</sub> O <sub>5</sub> S(s)                                                                              | A                      | 2  | 1  | 0  | May cause irritation of skin, eyes and respiratory tract; may be harmful if swallowed or inhaled; dust-air mixture explosive. | NC          | 8             | NR               | T                |
| n/a        | bromcresol green -----<br>solution<br><u>mixture</u> :<br>water ----- >98.8%<br>bromcresol green-----< 1.0%<br>tetrasodium ethylene diamine tetraacetate -----<br>0.02%                 | A                      | 1  | 0  | 0  | May cause irritation of skin, eyes.                                                                                           | NC          | 8             | NR               | D                |
| 115-40-2   | bromcresol purple-----<br>powder<br><br>C <sub>21</sub> H <sub>16</sub> Br <sub>2</sub> O <sub>5</sub> S(s)                                                                             | A                      | 2  | 0  | 0  | May cause irritation of skin, eyes and respiratory tract; may be harmful if swallowed, inhaled or absorbed through skin.      | NC          | 8             | NR               | T                |
| 115-40-2   | bromcresol purple-----<br>solution<br><u>mixture</u> :<br>water -----<br>99.96%<br>bromcresol purple--<br>0.04%<br>C <sub>21</sub> H <sub>16</sub> Br <sub>2</sub> O <sub>5</sub> S(aq) | A                      | 1  | 0  | 0  | May cause irritation of skin and eyes.                                                                                        | NC          | 8             | NR               | D                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                 | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                 | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 74-96-4    | bromoethane -----<br>liquid<br>(ethyl bromide)<br><br>C <sub>2</sub> H <sub>5</sub> Br(l)                                                           | C                      | 2  | 3  | 0  | A skin, eye and respiratory tract irritant; harmful if swallowed or inhaled; chronic exposure may lead to liver and kidney damage; an anaesthetic and a narcotic; highly flammable, low flash point, forms explosive mixtures with air. | B, D2       | 5             | 6.1              | WF/I             |
| 32762-51-9 | bromophenol ----- powder<br><br>C <sub>6</sub> H <sub>5</sub> BrO(s)                                                                                | A                      | 1  | 1  | 0  | Causes irritation to skin, eyes, gastrointestinal and respiratory tracts; flammable if heated or ignited.                                                                                                                               | NC          | 8             | 6.1              | WF/I             |
| 115-39-9   | bromophenol blue–<br>powder<br><br>C <sub>19</sub> H <sub>10</sub> Br <sub>4</sub> O <sub>5</sub> S(s)                                              | A                      | 2  | 1  | 0  | May cause irritation to skin, eyes and respiratory tract; may be harmful if swallowed or inhaled; flammable if heated, particle-air mixture explosive.                                                                                  | D1          | 8             | 6.1              | T or D(aq)       |
| n/a        | 4-bromophenol<br>blue -----<br>solution<br><u>mixture</u> :<br>water -----<br>79.0%<br>methyl alcohol -----<br>20.0%<br>bromophenol blue- <<br>1.0% | A                      | 2  | 1  | 0  | May cause irritation to skin, eyes and respiratory tract; may be harmful if swallowed or inhaled; flammable vapours.                                                                                                                    | D1          | 8             | 6.1              | D                |
| 76-59-5    | bromothymol                                                                                                                                         | A                      | 1  | 0  | 0  | May cause irritation to                                                                                                                                                                                                                 |             | 8             | NR               | D                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                      | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                              | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | blue -----<br>solution<br><u>mixture</u> :<br>water -----<br>99.9%<br>bromothymol blue- 0.1%                                             |                        |    |    |    | skin and eyes.                                                                                                                                                                                       | NC          |               |                  |                  |
| 76-59-5    | bromothymol blue–<br>crystals<br><br>$C_{27}H_{28}Br_2O_5S(s)$                                                                           | A                      | 2  | 1  | 0  | May cause irritation to skin, eyes and respiratory tract; harmful if swallowed; flammable if heated, particle-air mixture explosive.                                                                 | D1          | 8             | NR               | T                |
| 106-97-8   | butane ---- liquefied gas<br><br>$C_4H_{10}(l)$ & $C_4H_{10}(g)$                                                                         | B                      | 1  | 4  | 0  | Eye and skin irritant, may be harmful if ingested, inhaled or through skin contact; can cause CNS depression; extremely flammable.                                                                   | A, B        | 5             | 2.1              | WF/I             |
| 71-36-3    | 1-butanol -----<br>liquid<br>( <i>butyl alcohol, propyl carbinol, n-butyl alcohol</i> )<br>$C_4H_{10}O(l)$ or<br>$CH_3(CH_2)_2CH_2OH(l)$ | B                      | 2  | 3  | 0  | May cause irritation to skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the CNS, may affect liver and kidneys; highly flammable liquid and vapour. | B, D2       | 5             | 3                | WF/I             |
| 78-93-3    | 2-butanone ----- liquid<br>( <i>methyl ethyl ketone</i> )<br><br>$C_4H_8O(l)$ or<br>$CH_3COCH_2CH_3(l)$                                  | B                      | 2  | 3  | 0  | Vapour is an eye and skin irritant; may be harmful by ingestion, inhalation or through skin contact; prolonged exposure causes CNS depression;                                                       | B, D2       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                            | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                          | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                                |                        |    |    |    | may cause damage to lungs and CNS; may be a mutagen; highly flammable.                                                                                                                                           |             |               |                  |                  |
| 78-83-1    | iso-butyl alcohol ----- liquid<br>(2-methyl-1-propanol)<br>$C_4H_{10}O(l)$ or<br>$(CH_3)_2CHCH_2OH(l)$         | B                      | 2  | 3  | 0  | Causes irritation of the skin, eyes and mucous membranes; may be harmful if swallowed, inhaled or absorbed through skin; prolonged exposure affects the CNS; may damage the liver and kidneys; highly flammable. | B, D2       | 5             | 3                | WF/I             |
| 78-92-2    | sec-butyl alcohol ---- liquid<br>(2-butanol, 1-methyl propanol)<br>$C_4H_{10}O(l)$ or<br>$CH_3CHOHCH_2CH_3(l)$ | B                      | 2  | 3  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; affects the CNS; highly flammable liquid and vapour.                                                                     | B, D2       | 5             | 3                | WF/I             |
| 75-65-0    | tert-butyl alcohol ----- liquid<br>(tert-butanol, 2-methyl-2-propanol)<br>$C_4H_{10}O(l)$ or $(CH_3)_3COH(l)$  | B                      | 2  | 3  | 0  | Causes irritation to eyes and respiratory tract, may cause irritation to skin; harmful if swallowed or inhaled; affects the CNS; may affect liver and kidneys; highly flammable liquid and vapour.               | B, D2       | 5             | 3                | WF/I             |
| 84-74-2    | n-butyl phthalate --- liquid<br>(butyl phthalate)<br>$C_6H_4(CO_2C_4H_9)_2(l)$                                 | B                      | 2  | 1  | 0  | Causes skin and respiratory tract irritation and severe eye irritation; harmful if swallowed or inhaled; combustible if heated or ignited.                                                                       | D2          | 8             | 9                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                  | Use in School Category   | H* | F* | R* | Hazards                                                                                                                                                                                                     | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----|----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 107-92-6   | n-butyric acid -----<br>liquid<br>(butanoic acid, ethylacetic acid, propylformic acid)<br>$C_4H_8O_2(l)$ or<br>$CH_3CH_2CH_2COOH(l)$ | B                        | 2  | 2  | 0  | Causes severe irritation and possible burns to skin and eyes; may cause respiratory tract irritation; harmful if swallowed, inhaled or absorbed through skin; obnoxious odour; flammable liquid and vapour. | B, E        | 5,3           | 8                | WF/I             |
| 7440-43-9  | cadmium metal -- solid bar<br><br>Cd(s)                                                                                              | A                        | 2  | 0  | 0  | No special health hazards except for dust that may be released. For cadmium powder (dust) see below.                                                                                                        | D1, D2      | 8             | NR               | R                |
| 7440-43-9  | cadmium metal --- powder or chunks<br><br>Cd(s)                                                                                      | C - chunks<br>D - powder | 3  | 1  | 0  | Toxic by skin contact, inhalation or ingestion; may be fatal if inhaled; prolonged exposure causes damage to lungs and kidneys; dust-air mixture explosive; probable human carcinogen.                      | D1, D2      | 8             | 6.1              | WF/I             |
| n/a        | cadmium salts -----<br>powder                                                                                                        | D                        | 3  | 0  | 0  | Toxic and a human carcinogen with prolonged exposure.                                                                                                                                                       | D1, D2      | 8             | 6.1              | WF/I             |
| 58-08-2    | caffeine ----- powder<br>(1,3,7-trimethylxanthine)<br><br>$C_8H_{10}N_4O_2(s)$                                                       | B                        | 2  | 1  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; may cause birth defects; flammable if heated, particle-air mixture explosive.                                       | D1, D2      | 8             | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                          | Use in School Category | H* | F* | R*                | Hazards                                                                                                                                                   | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------|------------------------|----|----|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 13397-26-7 | calcite -----<br>crystalline<br>(calcium carbonate)<br>$\text{CaCO}_3(\text{s})$             | A                      | 0  | 0  | 0                 | May cause irritation to skin, eyes and respiratory tract; nuisance dust.                                                                                  | NC          | 8             | NR               | T                |
| 7440-70-2  | calcium metal ----- solid<br>$\text{Ca}(\text{s})$                                           | B                      | 3  | 1  | 2<br><del>W</del> | Corrosive; contact may cause burns; harmful or fatal if swallowed or absorbed through skin; flammable solid; reacts with water.                           | B, E        | 8             | 4.3              | WF/I             |
| 62-54-4    | calcium acetate ---<br>powder<br>$\text{Ca}(\text{CH}_3\text{COO})_2(\text{s})$              | A                      | 0  | 0  | 0                 | No adverse affects.                                                                                                                                       | NC          | 8             | NR               | T or D(aq)       |
| 75-20-7    | calcium carbide - granules<br>$\text{CaC}_2(\text{s})$                                       | C                      | 2  | 4  | 3<br><del>W</del> | Causes severe skin and eye irritation; harmful if inhaled; unstable; extremely flammable; reacts violently with water liberating flammable acetylene gas. | B, D2       | 4             | 4.3              | WF/I             |
| 471-34-1   | calcium carbonate-<br>powder<br>(calcite, aragonite, limestone)<br>$\text{CaCO}_3(\text{s})$ | A                      | 1  | 0  | 0                 | May cause irritation to skin, eyes and respiratory tract; nuisance dust.                                                                                  | NC          | 8             | NR               | T or D(aq)       |
| 10043-52-4 | calcium chloride -<br>granules<br>(dowflake)<br>$\text{CaCl}_2(\text{s})$                    | A                      | 2  | 0  | 0                 | Causes irritation and possible burns to skin, eyes and respiratory tract; harmful if swallowed or inhaled; releases chlorine fumes when heated.           | D2          | 8             | NR               | T or D(aq)       |
| 10031-30-8 | calcium<br>dihydrogenphosphate<br>monohydrate -----                                          | A                      | 1  | 0  | 0                 | Direct contact with eyes causes severe irritation or burns; may cause                                                                                     | NC          | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                    | Use in School Category             | H* | F* | R*                      | Hazards                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----|----|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | crystals<br>( <i>calcium phosphate monobasic</i> )<br>$\text{Ca}(\text{H}_2\text{PO}_4)_2 \cdot \text{H}_2\text{O}(\text{s})$                                          |                                    |    |    |                         | respiratory tract irritation.                                                                                                                                   |             |               |                  |                  |
| 7789-75-5  | calcium fluoride --- powder<br>( <i>fluorite, acid spar</i> )<br>$\text{CaF}_2(\text{s})$                                                                              | A                                  | 2  | 0  | 0                       | May cause irritation to skin, eyes and respiratory tract; may be harmful if swallowed or inhaled.                                                               | E           | 8             | NR               | T or D(aq)       |
| 7789-78-8  | calcium hydride - granules<br>$\text{CaH}_2(\text{s})$                                                                                                                 | C                                  | 3  | 2  | 2<br><del>W</del>       | Corrosive; contact may cause burns; harmful if swallowed, inhaled or absorbed through skin; strong reducing agent; highly flammable solid; reacts with water.   | B, D1, E    | 4             | 4.3              | WF/I             |
| 1305-62-0  | calcium hydroxide- crystals<br>( <i>slake lime, calcium hydrate</i> )<br>$\text{Ca}(\text{OH})_2(\text{s})$                                                            | B                                  | 3  | 0  | 0                       | Corrosive; causes burns to skin and eyes and severe irritation to respiratory tract; harmful if swallowed or inhaled.                                           | E           | 2             | 8                | T or D(aq)       |
| 1305-62-0  | calcium hydroxide- solution<br><u>mixture</u> :<br>$\text{H}_2\text{O}$ -----80 – 90%<br>$\text{Ca}(\text{OH})_2$ ----- 10 –20%<br>$\text{Ca}(\text{OH})_2(\text{aq})$ | A - 5% or less<br>B - more than 5% | 3  | 0  | 0                       | Corrosive; causes burns to skin and eyes and severe irritation to respiratory tract; harmful if swallowed or inhaled.                                           | E           | 2             | NR               | D                |
| 7778-54-3  | calcium hypochlorite ----- crystals<br>( <i>bleaching powder</i> )<br>$\text{Ca}(\text{ClO})_2(\text{s})$                                                              | B                                  | 3  | 0  | 1<br>OX<br><del>W</del> | Corrosive; causes burns to area of contact; harmful if swallowed or inhaled; strong oxidizer; reacts with water; emits toxic chlorine gas when mixed with acid. | C, D1       | 6             | 5.1              | D-(aq)<br>WF/I   |

| CAS Number | Chemical Name(s), State and Formula                                                                             | Use in School Category    | H* | F* | R*      | Hazards                                                                                                                                                                                     | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------|---------------------------|----|----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 13477-34-4 | calcium nitrate tetrahydrate ----- crystals<br>$\text{Ca}(\text{NO}_3)_2 \bullet 4\text{H}_2\text{O}(\text{s})$ | B - soln.<br>C - crystals | 2  | 0  | 3<br>OX | Causes irritation to skin, eye and respiratory tract; harmful if swallowed or inhaled; strong oxidizer; will ignite reducing agents or combustibles; may be explosive by shock or friction. | C, D2, F    | 6             | 5.1              | WF/I             |
| 1305-78-8  | calcium oxide ----- powder<br>$\text{CaO}(\text{s})$                                                            | B                         | 3  | 0  | 1<br>W  | Corrosive; contact causes severe burns to skin, eyes and respiratory tract if inhaled; may cause alkali burns to mouth and throat if ingested; reacts with organic materials and water.     | E           | 8             | NR               | WF/I             |
| 5794-28-5  | calcium oxalate monohydrate ----- powder<br>$\text{CaC}_2\text{O}_4 \bullet \text{H}_2\text{O}(\text{s})$       | A                         | 2  | 0  | 0       | May cause irritation of skin, eye, respiratory and digestive tracts; harmful if swallowed or absorbed through skin.                                                                         | D1          | 8             | 6.1              | WF/I             |
| 7789-77-7  | calcium phosphate (dibasic) dihydrate- crystals<br>$\text{CaHPO}_4 \bullet 2\text{H}_2\text{O}(\text{s})$       | A                         | 0  | 0  | 0       | May cause irritation of skin, eyes and respiratory tract.                                                                                                                                   | NC          | 8             | NR               | T or D(aq)       |
| 7758-87-4  | calcium phosphate (tribasic) ----- crystals<br>$\text{Ca}_3(\text{PO}_4)_2(\text{s})$                           | A                         | 1  | 0  | 0       | May cause irritation of skin, eyes, respiratory and digestive tracts.                                                                                                                       | NC          | 8             | NR               | WF/I             |
| 4075-81-4  | calcium propionate ----- granules<br>$\text{Ca}(\text{CH}_3\text{CH}_2\text{COO})_2(\text{s})$                  | A                         | 1  | 0  | 0       | May cause irritation of skin, eyes, respiratory and digestive tracts, if large amounts ingested.                                                                                            | NC          | 8             | NR               | WF/I             |
| 7778-18-9  | calcium sulfate -- granules                                                                                     | A                         | 1  | 0  | 0       | Causes irritation to skin,                                                                                                                                                                  |             | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                            | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                           | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | (anhydrous gypsum)<br>CaSO <sub>4</sub> (s)                                                                                                                    |                        |    |    |    | eye and respiratory tract; may be harmful if swallowed.                                                                                                                                                                           | NC          |               |                  |                  |
| 20548-54-3 | calcium sulfide ---- powder<br><br>CaS(s)                                                                                                                      | D                      | 3  | 1  | 1  | Toxic; may be fatal if inhaled or ingested; irritant to skin and mucous membranes; flammable; oxidizes in dry air; decomposes in moist air to form H <sub>2</sub> S; oxides of sulfur, calcium hydroxide, CO <sub>2</sub> and CO. | D1          | 8             | NR               | WF/I             |
| 76-22-2    | camphor ----- crystals (2-bornanone)<br>C <sub>10</sub> H <sub>16</sub> O(s)                                                                                   | A                      | 1  | 2  | 0  | Causes irritation to skin, eye and respiratory tract; flammable.                                                                                                                                                                  | B           | 4             | 4.1              | T                |
| 111-87-5   | caprylic alcohol----- liquid<br>(n-octanol)<br>C <sub>8</sub> H <sub>18</sub> O(l) or<br>CH <sub>3</sub> (CH <sub>2</sub> ) <sub>6</sub> CH <sub>2</sub> OH(l) | B                      | 2  | 2  | 0  | Causes irritation to skin, eye and respiratory tract; may be harmful if swallowed or inhaled; affects the CNS; combustible liquid and vapour.                                                                                     | B, D1       | 5             | NR               | D                |
| 57-13-6    | carbamide ----- powder<br>(urea)<br>CH <sub>4</sub> N <sub>2</sub> O(s)                                                                                        | A                      | 1  | 1  | 0  | May cause irritation of skin, eyes, respiratory and digestive tracts; particle-air mixture explosive.                                                                                                                             | NC          | 8             | NR               | T or D(aq)       |
| 108-95-2   | carbolic acid ----- liquid or<br><br>crystals<br>(phenol, phenic acid, phenylic acid)<br>C <sub>6</sub> H <sub>6</sub> O(s)                                    | D                      | 4  | 2  | 0  | Toxic and corrosive; absorbed rapidly through skin; causes severe burns to any area of contact; may be fatal if swallowed, inhaled or absorbed through skin; affects CNS, liver and kidneys; flammable.                           | B, D1, D2   | 4 ,5,3        | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                 | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                             | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7440-44-0  | carbon -----powder<br>( <i>graphite</i> ) or rods<br>C(s)                           | A - rods<br>B - powder | 1  | 1  | 0  | Dust may cause mechanical skin and eye irritation, may cause irritation of the respiratory and digestive tracts; flammable, dust-air mixture explosive.                                                                                             | NC          | 8             | 4.2              | T                |
| 124-38-9   | carbon dioxide ----- gas<br>CO <sub>2</sub> (g)                                     | B                      | 2  | 0  | 0  | Will elevate rate of breathing and heart rate; gas nontoxic but displaces oxygenated air and can cause rapid suffocation with high concentrations.                                                                                                  | NC          | 8             | 2.2              | A                |
| 75-15-0    | carbon disulfide ----- liquid<br>( <i>carbon bisulfide</i> )<br>CS <sub>2</sub> (l) | D                      | 3  | 4  | 0  | Toxic, may be fatal if inhaled or ingested; harmful if absorbed through skin; affects the CNS and heart, may cause liver and kidney damage; has adverse reproductive and fetal effects; extremely flammable liquid and gas.                         | B, D1, D2   | 5             | 3<br>(6.1)       | WF/I             |
| 56-23-5    | carbon tetrachloride--<br>liquid<br><br>CCl <sub>4</sub> (l)                        | D                      | 3  | 2  | 0  | Toxic; may be fatal by inhalation or skin absorption; highly toxic by ingestion; causes irritation to skin, eyes and respiratory tract; readily absorbed through skin; reproductive toxin; flammable; emits toxic fumes; mutagen and possible human | D1, D2      | 5             | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                               | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                     | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                                                   |                        |    |    |    | carcinogen.                                                                                                                                                                 |             |               |                  |                  |
| 409-21-2   | carborundum -----<br>solid<br>( <i>silicon carbide</i> )<br><br>SiC(s)                                                            | A                      | 1  | 0  | 0  | May cause mechanical irritation to skin and eyes, and irritation to the respiratory and digestive tracts; chronic inhalation of dust may lead to silicosis and lung damage. | NC          | 8             | NR               | T                |
| 1390-65-4  | carmine ----- powder<br><br>C <sub>22</sub> H <sub>20</sub> O <sub>13</sub> •xAl(s)                                               | A                      | 2  | 0  | 0  | May cause skin, eye and respiratory tract irritation; may be harmful if swallowed, inhaled or absorbed through skin.                                                        | NC          | 8             | NR               | WF/I             |
| n/a        | Carnoy's fluid -----<br>liquid<br><u>mixture</u> :<br>ethanol ----- 98.0%<br>acetic acid (glacial)- 1.0%<br>chloroform ----- 1.0% | C                      | 1  | 3  | 0  | May cause irritation to skin, eyes and respiratory tract, possible burns to eyes; ingestion may cause discomfort and vomiting; highly flammable liquid.                     | B, D1, D2   | 5             | 3                | WF/I             |
| 9000-71-9  | casein ----- granules<br>( <i>milk protein</i> )<br>formula not applicable                                                        | A                      | 0  | 1  | 0  | No adverse health effects; flammable if heated or ignited.                                                                                                                  | NC          | 8             | NR               | T                |
| 1310-58-3  | caustic potash -----<br>pellets<br>( <i>potassium hydroxide</i> )<br><br>KOH(s)                                                   | B                      | 3  | 0  | 1  | Corrosive; causes severe burns to any area of contact; harmful by ingestion, inhalation or skin contact; unstable, absorbs carbon dioxide and moisture from air.            | D1, E       | 2             | 8                | WF/I or N/P-T    |
| 1310-73-2  | caustic soda ----- pellets<br>( <i>sodium hydroxide</i> )                                                                         | B                      | 3  | 0  | 1  | Corrosive; causes burns to any area of contact; may be fatal if swallowed;                                                                                                  | D1, E       | 2             | 8                | WF/I or N/P-T    |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                         | Use in School Category | H* | F* | R*             | Hazards                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | NaOH(s)                                                                                                                                                                     |                        |    |    |                | harmful if inhaled; heat released when added to water.                                                                                                                 |             |               |                  |                  |
| 9004-35-7  | cellulose acetate –powder (variable formula)                                                                                                                                | A                      | 1  | 1  | 0              | No adverse effects.                                                                                                                                                    | NC          | 8             | NR               | T or D(aq)       |
| 9004-67-5  | cellulose methyl ether----- granules (methyl cellulose) C <sub>7</sub> H <sub>14</sub> O <sub>5</sub> X (X-variable)(s)                                                     | A                      | 0  | 0  | 0              | No adverse effects.                                                                                                                                                    | NC          | 8             | NR               | T                |
| 7440-46-2  | cesium metal ----- solid Cs(s)                                                                                                                                              | C                      | 2  | 0  | 2 <del>W</del> | May cause irritation of skin, eyes, respiratory and digestive tracts; may cause central nervous system effects, cardiac disturbances; reacts violently with water.     | D1, D2, F   | 8             | 4.3              | WF/I             |
| 7647-17-8  | cesium chloride -- crystals CsCl(s)                                                                                                                                         | A                      | 0  | 0  | 0              | No adverse effects.                                                                                                                                                    | NC          | 8             | NR               | T                |
| 36653-82-4 | cetyl alcohol ----- powder (1-hexadecanol, palmityl alcohol) C <sub>16</sub> H <sub>34</sub> O(s) or CH <sub>3</sub> (CH <sub>2</sub> ) <sub>14</sub> CH <sub>2</sub> OH(s) | A                      | 1  | 1  | 0              | May cause mild skin and eye irritation; powder-air mixture flammable.                                                                                                  | NC          | 8             | NR               | T                |
| 1308-56-1  | chalcopyrite ----- chunks (cupric ferrous sulfide) CuFeS <sub>2</sub> (s)                                                                                                   | A                      | 1  | 0  | 0              | May be irritating to skin, eyes and respiratory tract; prolonged exposure may cause hemolysis of the red blood cells and injury to liver, lungs, kidneys and pancreas. | NC          | 8             | NR               | T                |
| 16291-96-6 | charcoal -----solid                                                                                                                                                         | A                      | 1  | 1  | 0              | Dust may cause                                                                                                                                                         |             | 8             | 4.2              | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                   | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                        | WHMIS Class     | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|------------------|------------------|
|            | (carbon)<br>C(s)                                                                                                      |                        |    |    |         | mechanical skin and eye irritation; may cause irritation of the respiratory and digestive tracts; flammable.                                                                                                                   | NC              |               |                  |                  |
| 7782-50-5  | chlorine ----- gas<br>Cl <sub>2</sub> (g)                                                                             | D                      | 4  | 0  | 0<br>OX | Extremely toxic if inhaled; strong oxidizer.                                                                                                                                                                                   | D1,<br>D2       | 6, 7          | 5.1              | WF/I             |
| 67-66-3    | chloroform ----- liquid<br>(trichloromethane)<br><br>CHCl <sub>3</sub> (l)                                            | D                      | 2  | 0  | 0       | Causes irritation to skin, eyes and respiratory tract; may be fatal if swallowed, inhaled or absorbed through skin; extended exposure may affect the CNS, cardiovascular system, liver and kidneys; possible human carcinogen. | D1,<br>D2       | 8             | 6.1              | WF/I             |
| 95-57-8    | 2-chlorophenol ----- liquid<br>(o-chlorophenol, 2-hydroxychlorobenzene)<br>C <sub>6</sub> H <sub>5</sub> ClO(l)       | C                      | 3  | 2  | 0       | Corrosive; very destructive of mucous membranes, inhalation may be fatal; harmful if swallowed or absorbed through skin; may cause liver and kidney damage; flammable; possible human carcinogen.                              | B, D1,<br>D2    | 5             | 5                | WF/I             |
| 7738-94-5  | chromic acid -----<br>solution<br>(chromium(VI))<br>oxide solution)<br><u>mixture</u> :<br>H <sub>2</sub> O ----- 90% | C                      | 3  | 0  | 1<br>OX | Corrosive; causes burns to skin, eyes and mucous membranes; highly toxic; powerful oxidizing agent; avoid contact with reducing agents and                                                                                     | C, D1,<br>D2, E | 1, 6          | 8                | N/P-D            |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                           | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                      | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | CrO <sub>3</sub> ----- 10%<br>CrO <sub>3</sub> (aq)                                                                                                           |                        |    |    |         | organic material. A human carcinogen as fume or dust.                                                                                                                        |             |               |                  |                  |
| 1066-30-4  | Chromium (III) acetate ----- powder<br>(chromic acetate)<br>C <sub>6</sub> H <sub>9</sub> CrO <sub>6</sub> (s) or<br>Cr(CH <sub>3</sub> COO) <sub>3</sub> (s) | B                      | 1  | 1  | 0       | May cause minor irritation of skin, eyes and respiratory tract; prolonged exposure causes cumulative lung damage; combustible if heated or ignited.                          | NC          | 8             | 6.1              | WF/I             |
| 10060-12-5 | chromium(III) chloride hexahydrate ----- crystals<br><br>CrCl <sub>3</sub> •6H <sub>2</sub> O(s)                                                              | B                      | 2  | 0  | 0       | May cause skin, eye, respiratory and digestive tract irritation and possible burns; may be harmful if swallowed; may cause liver and kidney damage; may cause fetal effects. | NC          | 8             | NR               | WF/I             |
| 7789-02-8  | chromium(III) nitrate nonahydrate ----- solid<br><br>Cr(NO <sub>3</sub> ) <sub>3</sub> •9H <sub>2</sub> O(s)                                                  | B                      | 2  | 0  | 1<br>OX | May cause severe skin, digestive and respiratory tract irritation and possible burns; may cause methemoglobinemia; strong oxidizer, may explode when heated.                 | C, D2       | 6             | 5.1              | WF/I             |
| 7440-47-3  | chromium metal ----- solid<br><br>Cr(s)                                                                                                                       | A                      | 1  | 0  | 0       | Associated dust may cause irritation to skin, eyes and respiratory tract. For dust see effects below.                                                                        | NC          | 8             | NR               | R                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                   | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7440-47-3  | chromium metal -- powder<br><br>Cr(s)                                                                                                                 | B                      | 2  | 1  | 1       | Dust causes skin, eye and digestive tract irritation; causes severe respiratory tract irritation; may cause lung, liver and kidney damage; oxidizes in air; dust-air mixture explosive.        | NC          | 8             | NR               | R                |
| n/a        | chromium(VI)<br>salts ----- powder                                                                                                                    | D                      | 3  | 0  | 1       | Corrosive; all carcinogenic with long-term exposure.                                                                                                                                           | D1<br>D2    | 6             | 5.1              | WF/I             |
| 1333-82-0  | chromium(VI)<br>oxide ----- powder<br><br>CrO <sub>3</sub> (s)                                                                                        | D                      | 3  | 0  | 1<br>OX | Corrosive; causes severe burns to every area of contact; harmful if swallowed or inhaled, affects the respiratory system, liver, kidneys, eyes, skin and blood; strong oxidizer; carcinogenic. | D1,<br>D2   | 6             | 5.1, 8           | WF/I             |
| 7788-99-0  | chromium potassium<br>sulfate•12<br>hydrate-----granules<br>CrK(SO <sub>4</sub> ) <sub>2</sub> •12 H <sub>2</sub> O(s)                                | B                      | 2  | 0  | 0       | Causes skin, eye and respiratory tract irritation; harmful if swallowed or inhaled.                                                                                                            | D2          | 8             | NR               | WF/I             |
| 77-92-9    | citric acid ----- powder<br><br>C <sub>6</sub> H <sub>8</sub> O <sub>7</sub> (s)                                                                      | B                      | 2  | 0  | 0       | Causes skin and respiratory tract irritation; causes severe eye irritation; may cause digestive tract irritation; moisture sensitive.                                                          | E           | 3             | NR               | N/P-D            |
| 1829-00-1  | Clayton yellow ---- powder<br>(thiazole yellow G)<br>C <sub>28</sub> H <sub>19</sub> N <sub>5</sub> Na <sub>2</sub> O <sub>6</sub> S <sub>4</sub> (s) | B                      | 0  | 1  | 1       | No adverse effects; flammable if heated or ignited, air-dust mixture                                                                                                                           | NC          | 8             | NR               | T                |

| CAS Number               | Chemical Name(s), State and Formula                                                                                                                  | Use in School Category  | H* | F* | R* | Hazards                                                                                                                                                    | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|                          |                                                                                                                                                      |                         |    |    |    | explosive; light sensitive.                                                                                                                                |             |               |                  |                  |
| 7440-48-4                | cobalt ----- powder or solid<br>Co(s)                                                                                                                | B - solid<br>D - powder | 2  | 0  | 0  | Powder may cause irritation to eyes, skin and respiratory tract; harmful if swallowed; powder will oxidize in air; possible human carcinogen.              | D2          | 8             | 4.1              | R or WF/I        |
| 71-48-7                  | cobalt(II) acetate – crystals<br>Co(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> •4H <sub>2</sub> O(s)                                | A                       | 1  | 0  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; chronic exposure may effect the thyroid, lungs, heart and kidneys. | NC          | 8             | NR               | WF/I or N/P-T    |
| 513-79-1                 | cobalt(II) carbonate----- powder<br>CoCO <sub>3</sub> (s)                                                                                            | B                       | 2  | 0  | 0  | Causes irritation to eyes, skin and respiratory tract; harmful if swallowed or inhaled; chronic exposure may effect the thyroid, lungs, heart and kidneys. | D1, D2      | 8             | 6.1              | WF/I or N/P-T    |
| 7646-79-9 &<br>7791-13-1 | cobalt(II) chloride, anhydrous<br>CoCl <sub>2</sub><br>&<br>cobalt(II) chloride, hexahydrate ----- powder<br>CoCl <sub>2</sub> •6H <sub>2</sub> O(s) | B                       | 2  | 0  | 0  | May cause irritation of skin, eyes and mucous membranes; may be harmful if inhaled or absorbed through skin; toxic by ingestion; possible carcinogen.      | D1, D2      | 8             | 6.1              | WF/I or N/P-T    |
| 10026-22-9               | cobalt(II) nitrate hexahydrate ----- crystals<br>Co(NO <sub>3</sub> ) <sub>2</sub> •6H <sub>2</sub> O(s)                                             | B                       | 2  | 0  | 0  | Causes irritation of skin, eyes and mucous membranes; harmful if inhaled or absorbed through skin.                                                         | C, D2       | 8             | 6.1              | WF/I             |
| 10026-24-1               | cobalt(II) sulfate                                                                                                                                   | B                       | 2  | 0  | 0  | Causes irritation of skin,                                                                                                                                 |             | 8             | 6.1              | WF/I or          |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                         | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                                                                                                                                           | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | heptahydrate -----<br>crystals<br>$\text{CoSO}_4 \cdot 7\text{H}_2\text{O}(\text{s})$                                                                                       |                        |    |    |    | eyes and mucous membranes; may be harmful if inhaled or absorbed through skin.                                                                                                                                                                                                                                                                                                                                    | D1,<br>D2   |               |                  | N/P-T            |
| 64-86-8    | colchicine ----- powder<br><br>$\text{C}_{22}\text{H}_{25}\text{NO}_6(\text{s})$                                                                                            | D                      | 4  | 1  | 0  | Corrosive and highly toxic if swallowed; causes severe irritation of eyes; causes irritation of skin and respiratory tract; may be fatal if inhaled, or absorbed through skin; may cause birth defects; affects the reproductive system; combustible if heated or ignited.                                                                                                                                        | D1,<br>D2   | 8             | 6.1              | WF/I             |
| n/a        | collodion solution --- liquid<br>( <i>pyroxylin solution</i> )<br><u>mixture</u> :<br>ethyl ether ----- 60-70%<br>ethyl alcohol ----- 22-26%<br>nitrocellulose ----- ~5.2 % | C                      | 2  | 4  | 0  | Causes skin irritation and possible burns, moderate eye irritation; harmful if inhaled, swallowed or absorbed through skin; extended exposure to vapour can cause lung damage; may cause central nervous system depression or reproductive and fetal effects; may cause liver and kidney damage; prolonged exposure to air may form unstable explosive peroxides; extremely flammable; possible human carcinogen. | B, D2       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                   | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                   | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 573-58-0   | congo red -----<br>solution<br><u>mixture</u> :<br>water -----<br>99.0%<br>congo red -----<br>0.1%<br>$C_{32}H_{22}N_6Na_2O_6S_2(aq)$ | B                      | 1  | 0  | 0  | May cause irritation to skin and eyes; excessive absorption through skin or by ingestion may be harmful.                                                                                                  | D1,<br>D2   | 8             | 9                | WF/I             |
| 573-58-0   | congo red ----- powder<br><br>$C_{32}H_{22}N_6Na_2O_6S_2(s)$                                                                          | C                      | 3  | 1  | 0  | Toxic; may be fatal by ingestion, inhalation or by skin absorption; causes irritation of eyes and possibly skin; possible human carcinogen; combustible if heated or ignited; dust-air mixture explosive. | D1,<br>D2   | 8             | 6.1              | WF/I             |
| 7440-50-8  | copper metal ----- powder<br><br>Cu(s)                                                                                                | D                      | 2  | 0  | 0  | Causes irritation to skin, eyes and mucous membranes; harmful if swallowed or inhaled; affects the liver and kidneys; chronic exposure may cause tissue damage.                                           | NC          | 8             | NR               | R                |
| 7440-50-8  | copper metal - strip or wire<br>Cu(s)                                                                                                 | A                      | 0  | 0  | 0  | No adverse effects.                                                                                                                                                                                       | NC          | 8             | NR               | R                |
| 6046-93-1  | copper(II) acetate monohydrate -----<br>powder<br>$Cu(CH_3COO)_2 \cdot H_2O(s)$                                                       | B                      | 2  | 0  | 0  | Causes irritation to skin and respiratory tract, causes eye burns; harmful if swallowed.                                                                                                                  | NC          | 8             | 9                | WF/I or<br>N/P-T |
| 7789-45-9  | copper(II)                                                                                                                            | B                      | 2  | 0  | 0  | Causes irritation to skin,                                                                                                                                                                                |             | 8             | NR               | WF/I or          |

| CAS Number               | Chemical Name(s), State and Formula                                                                                    | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                  | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|--------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|                          | bromide -----<br>crystals<br><br>CuBr <sub>2</sub> (s)                                                                 |                        |    |    |         | eyes and respiratory tract; harmful if swallowed; affects central nervous system, liver and kidneys.                                                                     | NC          |               |                  | N/P-T            |
| 12069-69-1               | copper(II) carbonate basic-----<br>powder<br>CuCO <sub>3</sub> •Cu(OH) <sub>2</sub> (s)                                | B                      | 2  | 0  | 0       | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed; affects the liver and kidneys.                                                              | D1, D2      | 8             | NR               | WF/I or N/P-T    |
| 7758-89-6<br>& 7447-39-4 | copper(I) chloride (anhydrous)<br>CuCl<br>& copper(II) chloride (anhydrous) -----<br>crystals<br>CuCl <sub>2</sub> (s) | B                      | 2  | 0  | 0       | Causes irritation to skin, eyes, respiratory and digestive tract; harmful if inhaled or swallowed; may cause lung, liver and kidney damage.                              | D1, D2, E   | 8             | 8                | WF/I or N/P-T    |
| 19004-19-4               | copper(II) nitrate hemipenthydrate -----<br>crystals<br>Cu(NO <sub>3</sub> ) <sub>2</sub> •2.5H <sub>2</sub> O(s)      | B                      | 2  | 0  | 0<br>OX | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed; affects the liver and kidneys; strong oxidizer; contact with other material may cause fire. | C, D2, E    | 6             | 5.1              | WF/I             |
| 1317-38-0                | copper(II) oxide -- powder<br>CuO(s)                                                                                   | B                      | 2  | 0  | 0       | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed; affects the liver and kidneys.                                                              | D2          | 8             | NR               | T                |

| CAS Number               | Chemical Name(s), State and Formula                                                                                                                        | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7758-98-7<br>& 7758-99-8 | copper(II) sulfate anhydrous<br>$\text{CuSO}_4$<br>& copper(II) sulfate pentahydrate-----<br>powder<br>$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}(\text{s})$ | B                      | 2  | 0  | 0  | May cause irritation to skin, eyes and respiratory tract; harmful if swallowed; affects the liver and kidneys.                                                                                                  | D1, D2      | 8             | 9                | WF/I or N/P-T    |
| 1317-40-4                | copper(II) sulfide - powder<br>$\text{CuS}(\text{s})$                                                                                                      | B                      | 2  | 0  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed; affects the liver and kidneys.                                                                                                     | NC          | 8             | NR               | WF/I or N/P-T    |
| 868-14-4                 | cream of tartar ---- powder<br>( <i>potassium hydrogen tartrate</i> )<br>$\text{KHC}_4\text{H}_4\text{O}_6(\text{s})$                                      | A                      | 0  | 0  | 0  | No adverse effects.                                                                                                                                                                                             | NC          | 8             | NR               | T                |
| 1319-77-3                | cresol ----- liquid<br>( <i>cresylic acid</i> )<br><br>$\text{C}_7\text{H}_8\text{O}(\text{l})$                                                            | B                      | 2  | 2  | 1  | May cause severe skin and eye irritation; harmful by inhalation, ingestion, or absorption through skin; chronic exposure may cause damage to kidneys, liver, lungs, blood or central nervous system; flammable. | B, D1       | 5             | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                      | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                 | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 15096-52-3 | cryolite -----<br>chunk<br>(sodium aluminum fluoride)<br><br>Na <sub>3</sub> AlF <sub>6</sub> (s)                                                                                                        | C                      | 3  | 0  | 0  | Toxic; extremely destructive of mucous membranes and upper respiratory tract; harmful by inhalation; ingestion or through skin absorption; prolonged exposure through inhalation or ingestion can cause serious damage to health.       | D1,<br>D2   | 8             | 8                | WF/I             |
| 548-62-9   | crystal violet ----- powder<br>(gentian violet)<br><br>C <sub>25</sub> H <sub>30</sub> N <sub>3</sub> Cl(s)                                                                                              | B                      | 2  | 1  | 0  | Causes irritation to skin, eyes and mucous membranes; may cause eye injury; harmful if swallowed; possible human carcinogen; dust-air mixture explosive.                                                                                | D1,<br>D2   | 8             | 6.1              | T                |
| n/a        | crystal violet<br>stain -----<br>solution<br><u>mixture</u> :<br>ethanol -----<br><12.0%<br>methyl alcohol -----<br><1.0%<br>phenol -----<br><1.0%<br>crystal violet ----- < 0.4%<br>water ----- balance | B                      | 2  | 1  | 0  | May cause irritation of skin, eyes, respiratory and digestive tract; inhalation of high concentrations causes central nervous effects; may cause liver and kidney damage and reproductive and fetal effects; possible human carcinogen. | D2          | 8             | 3<br>(6.1)       | WF/I             |
| 110-82-7   | cyclohexane -----<br>liquid<br>(hexamethylene)<br>C <sub>6</sub> H <sub>12</sub> (l)                                                                                                                     | B                      | 2  | 3  | 0  | Respiratory, eye, and skin irritant; harmful by inhalation, ingestion or skin absorption; highly flammable.                                                                                                                             | B           | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                   | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                   | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 108-93-0   | cyclohexanol ----- liquid<br>(hexalin, <i>cyclohexyl alcohol</i> )<br>$C_6H_{12}O(l)$ | B                      | 2  | 2  | 0  | Severe skin and eye irritant; harmful by inhalation, ingestion or skin absorption; flammable; reacts violently with oxidizing agents.                     | B, D1       | 5             | 3                | WF/I             |
| 110-83-8   | cyclohexene ----- liquid<br>( <i>tetrahydrobenzene</i> )<br>$C_6H_{10}(l)$            | B                      | 1  | 3  | 0  | Skin, respiratory tract and eye irritant; highly flammable; strong offensive odour.                                                                       | B, D2       | 5             | 3                | WF/I             |
| 52-90-4    | cysteine ----- crystals<br>$C_3H_7NO_2S(s)$ or<br>$HSCH_2CH(NH_2)COOH(s)$             | A                      | 1  | 0  | 0  | May be harmful if swallowed.                                                                                                                              | NC          | 8             | NR               | T                |
| 923-32-0   | cystine ----- crystals<br>( <i>L-cystine</i> ) $C_6H_{12}N_2O_4S_2(s)$                | A                      | 0  | 0  | 0  | No adverse effects.                                                                                                                                       | NC          | 8             | NR               | T                |
| 50-99-7    | dextrose ----- crystals<br>( <i>glucose</i> )<br>$C_6H_{12}O_6(s)$                    | A                      | 0  | 0  | 0  | No adverse effects.                                                                                                                                       | NC          | 8             | NR               | T                |
| 3012-65-5  | diammonium citrate-- powder<br><br>( $NH_4$ ) $2HC_6H_5O_7(s)$                        | B                      | 2  | 1  | 0  | May cause irritation to skin, eyes and respiratory tract; harmful if ingested or inhaled; flammable if heated or ignited, particle-air mixture explosive. | NC          | 8             | NR               | T or D(aq)       |
| 9000-92-4  | diastase ----- powder<br>( <i>amylolytic enzymes</i> )<br>formula not applicable      | A                      | 0  | 1  | 0  | Mechanical irritant, no adverse health effects; combustible if heated or ignited; dust-air mixture explosive.                                             | NC          | 8             | NR               | T                |
| 106-37-6   | 1,4 – dibromobenzene-----                                                             | B                      | 1  | 0  | 0  | Causes irritation to skin,                                                                                                                                |             | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                        | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                | WHMIS Class  | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------|------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|------------------|------------------|
|            | ----- crystals<br>( <i>p</i> - <i>dibromobenzene</i> )<br>$C_6H_4Br_2(s)$                  |                        |    |    |    | eyes and respiratory tract.                                                                                                                                                                                                                            | NC           |               |                  |                  |
| 84-74-2    | dibutyl phthalate ---- liquid<br>( <i>n</i> -butyl phthalate)<br>$C_6H_4(CO_2C_4H_9)_2(l)$ | B                      | 2  | 1  | 0  | Causes skin and respiratory tract irritation and severe eye irritation; harmful if swallowed or inhaled; combustible if heated or ignited.                                                                                                             | D2           | 8             | 9                | WF/I             |
| 106-46-7   | p-dichlorobenzene-----<br>- crystals<br>(1,4-dichlorobenzene)<br>$C_6H_4Cl_2(s)$           | B                      | 2  | 2  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if inhaled, swallowed or absorbed through the skin; affects the respiratory system, liver, kidneys and blood; flammable, forms explosive vapour-air mixture; possible human carcinogen. | D1,<br>D2    | 4             | 9                | WF/I             |
| 107-06-2   | 1,2-dichloroethane - liquid<br><br>$ClCH_2CH_2Cl(l)$                                       | C                      | 2  | 3  | 0  | Harmful if swallowed, inhaled or absorbed through skin; affects the central nervous system, liver, kidneys and cardiovascular system; flammable liquid and vapour; possible human carcinogen.                                                          | B, D1,<br>D2 | 5             | 3<br>(6.1)       | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                   | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                    | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 75-09-2    | dichloromethane ---- liquid<br>( <i>methylene chloride</i> )<br><br>CH <sub>2</sub> Cl <sub>2</sub> (l)                                                               | C                      | 2  | 1  | 0  | Causes irritation and possible burns to skin, eyes and respiratory tract; may be absorbed through skin; may depress central nervous system function; combustible if heated or ignited; vapours may form explosive mixture with air; mutagen and possible human carcinogen. | D1,<br>D2   | 8             | 6.1              | WF/I             |
| 94-75-7    | 2,4-dichlorophenoxy acetic acid ----- powder<br>(2,4 D)<br>C <sub>8</sub> H <sub>6</sub> Cl <sub>2</sub> O <sub>3</sub> (s)                                           | C                      | 3  | 0  | 1  | Toxic if swallowed or inhaled; eye, skin and respiratory irritant; may be harmful by skin contact; may cause central nervous system damage; possible human carcinogen; decomposes in water.                                                                                | D1,<br>D2   | 8             | 6.1              | WF/I             |
| 76-14-2    | 1,2-dichlorotetrafluoroethane -----<br>gas<br>( <i>freon 114</i> )<br>CClF <sub>2</sub> CClF <sub>2</sub> (g) or<br>C <sub>2</sub> Cl <sub>2</sub> F <sub>4</sub> (g) | B                      | 1  | 0  | 0  | May irritate skin, eyes and respiratory tract; contributes to ozone depletion in the atmosphere.                                                                                                                                                                           | NC          | 8             | NR               | WF/I             |
| 60-29-7    | diethyl ether ----- liquid<br>( <i>ethyl ether</i> )<br><br>C <sub>4</sub> H <sub>10</sub> O(l) or C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub> (l)   | D                      | 2  | 4  | 1  | Causes skin, eye and respiratory irritation; harmful by ingestion, inhalation or skin absorption; may cause inebriation or coma; extremely flammable; unstable, reacts with air to                                                                                         | B, D1       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                              | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                                                                                                                                                       | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------|------------------------|----|----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                  |                        |    |    |    | form explosive peroxides while in storage.                                                                                                                                                                                                                                                                                                                                                                                    |             |               |                  |                  |
| 95-45-4    | dimethylglyoxime-- powder<br>(diacetylaldioxime)<br>$C_4H_8N_2O_2(s)$            | B                      | 1  | 1  | 0  | May irritate skin, eyes and respiratory tract; harmful if swallowed; flammable if heated.                                                                                                                                                                                                                                                                                                                                     | NC          | 8             | NR               | WF/I             |
| 77-78-1    | dimethyl sulfate ----- liquid<br><br>( $CH_3$ ) <sub>2</sub> SO <sub>4</sub> (l) | D                      | 4  | 2  | 0  | Toxic and corrosive; causes severe burns to any area of contact; vapours extremely toxic, a few whiffs can be fatal; vapours have no odour or immediate irritation to warn of inhalation exposure; may also be fatal if swallowed or absorbed through skin; delayed effects are severe inflammation, chest tightness, trouble breathing and severe pulmonary damage; flammable liquid and vapours; possible human carcinogen. | B, D1, D2   | 5             | 6.1 (8)          | WF/I             |
| 51-28-5    | 2,4–dinitrophenol- powder<br>(aldefin)<br>$C_6H_4N_2O_5(s)$                      | D                      | 3  | 2  | 0  | Toxic by inhalation and ingestion, danger of cumulative effects; flammable, may explode when heated.                                                                                                                                                                                                                                                                                                                          | B, D1, D2   | 4             | 4.1              | WF/I             |
| 123-91-1   | 1,4-dioxane ----- liquid<br>(1,4-diethylene dioxide)                             | D                      | 3  | 3  | 1  | Most toxic by inhalation, easily absorbed through lungs; poisoning has poor warning properties;                                                                                                                                                                                                                                                                                                                               | B, D1, D2   | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                              | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                              | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | $C_4H_8O_2(l)$                                                                                   |                        |    |    |    | anhydrous form oxidizes slowly forming explosive peroxides in storage; highly flammable; a possible human carcinogen.                                                                                                                                                                                |             |               |                  |                  |
| 122-39-4   | diphenylamine ---- crystals<br>( <i>n</i> -phenylbenzeneamine)<br><br>$C_{12}H_{10}NH(s)$        | C                      | 3  | 1  | 0  | Toxic, inhalation causes systemic poisoning; causes irritation to skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the blood; prolonged exposure damages the nervous system, liver, kidneys and bone marrow; flammable if heated; possible mutagen. | NC          | 8             | 6.1              | WF/I             |
| 124-38-9   | dry ice -----<br>solid/gas<br>(carbon dioxide)<br><br>$CO_2(s)$ & $CO_2(g)$                      | C                      | 2  | 0  | 0  | Cryogenic solid; causes frostbite or extensive freezing of flesh on contact; gas will elevate rate of breathing and heart rate; gas nontoxic but displaces oxygenated air and can cause rapid suffocation with high concentrations.                                                                  | NC          | 8             | 9                | A                |
| 60-00-4    | EDTA ----- powder<br>(ethylenedinitrilotetraacetic acid, edetic acid)<br>$C_{10}H_{16}N_2O_8(s)$ | A                      | 2  | 0  | 0  | Causes eye irritation, may cause irritation to skin and respiratory tract; may be harmful if swallowed or inhaled.                                                                                                                                                                                   | NC          | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                 | Use in School Category  | H* | F* | R* | Hazards                                                                                                                                                                                                                                  | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------|-------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 548-24-3   | eosin B ----- powder<br><br>$C_{20}H_6Br_2N_2Na_2O_9(s)$                                                            | A                       | 2  | 1  | 0  | May cause irritation to skin, eyes or respiratory tract; may be harmful if swallowed, inhaled or absorbed through skin; combustible if heated or ignited.                                                                                | NC          | 8             | NR               | WF/I             |
| 17372-87-1 | eosin Y ----- solution<br><u>mixture</u> :<br>water ----- 99.8%<br>eosin Y ----- 0.2%<br>$C_{20}H_6Br_4Na_2O_5(aq)$ | A                       | 1  | 0  | 0  | May cause irritation of the eyes and skin; excessive absorption through skin or by ingestion may be harmful.                                                                                                                             | NC          | 8             | NR               | D                |
| 17372-87-1 | eosin Y ----- powder<br><br>$C_{20}H_6Br_4Na_2O_5(s)$                                                               | A                       | 2  | 0  | 0  | May cause irritation of the eyes, skin, respiratory and digestive tracts; harmful if inhaled or absorbed through skin; may be harmful if ingested.                                                                                       | NC          | 8             | NR               | WF/I             |
| 51-43-4    | epinephrine - powder<br>( <i>adrenalin</i> )<br><br>$C_9H_{13}NO_3(s)$                                              | B - soln.<br>C - powder | 2  | 1  | 0  | Causes skin and eye irritation; harmful if swallowed, inhaled or absorbed through skin; increases heart rate, blood pressure; may cause central nervous system depression; excess absorption can be fatal; powder-air mixture explosive. | D2          | 8             | 6.1              | WF/I             |
| 7487-88-9  | epsom salts ----- powder<br>( <i>magnesium sulfate heptahydrate</i> )<br>$MgSO_4 \cdot 7H_2O(s)$                    | A                       | 1  | 0  | 0  | Dust may be slightly irritating to respiratory system; may be harmful if swallowed.                                                                                                                                                      | NC          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                         | Use in School Category | H* | F* | R* | Hazards                                                                                                                                              | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a        | eriochrome black T--<br>liquid<br><u>mixture</u> :<br>water ----- 0.8%<br>methyl alcohol -----<br>98.4%<br>ammonium<br>hydroxide -----<br>0.3%<br>eriochrome black T - 0.4% | B                      | 2  | 3  | 0  | Causes irritation of skin, eyes and respiratory tracts; harmful if inhaled, swallowed or absorbed through skin; highly flammable liquid and vapour.  | B, D1, D2   | 5             | 3<br>(6.1)       | D                |
| 1787-61-7  | eriochrome black T-<br>powder<br>$C_{20}H_{12}N_3NaO_7S(s)$                                                                                                                 | A                      | 1  | 0  | 0  | Causes eye irritation; may cause irritation of the skin, digestive and respiratory tracts.                                                           | NC          | 8             | NR               | T                |
| 64-19-7    | ethanoic acid-----<br>-- liquid<br>( <i>glacial acetic acid</i> )<br>$CH_3COOH(l)$                                                                                          | B                      | 3  | 2  | 0  | Corrosive; liquid and mist cause severe burns to all body tissue; may be fatal if ingested; harmful if inhaled; flammable liquid and vapour.         | B, E        | 5             | 8<br>(3)         | WF/I or<br>N/P-D |
| 64-19-7    | ethanoic acid-----<br>solution<br>( <i>acetic acid, vinegar</i> )<br><u>mixture</u> :<br>$CH_3COOH$ ----- 7%<br>$H_2O$ ----- 93%<br>$CH_3COOH(aq)$                          | A                      | 1  | 0  | 0  | Causes irritation of the nose, throat and respiratory tract, prolonged contact may cause burns and dermatitis.                                       | NC          | 1             | NR               | N/P-D            |
| 141-78-6   | ethyl acetate -----<br>liquid<br>$CH_3COOC_2H_5(l)$<br>or $C_4H_8O_2(l)$                                                                                                    | B                      | 2  | 3  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; affects the central nervous system; highly flammable liquid. | B, D2       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                             | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                            | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods                |
|------------|-------------------------------------------------------------------------------------------------|------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|---------------------------------|
| 64-17-5    | ethyl alcohol -----<br>liquid<br>( <i>ethanol</i> )<br><br>$C_2H_5OH(l)$                        | B                      | 0  | 3  | 0  | Causes moderate skin and severe eye irritation; inhalation or ingestion of high concentrations may depress the central nervous system; highly flammable.                                                           | B, D1, D2   | 5             | 3                | D                               |
| 75-04-7    | ethylamine ---- liquid & gas<br>( <i>monoethylamine</i> )<br><br>$C_2H_7N(l)$ & $C_2H_7N(g)$    | D                      | 3  | 4  | 0  | Corrosive; higher concentrations destructive to skin, airway and eyes; inhalation may be fatal; vapours extremely flammable.                                                                                       | B, D1       | 5             | 3                | WF/I or RS<br>(gas in cylinder) |
| 74-96-4    | ethyl bromide -----<br>liquid<br>( <i>bromoethane</i> )<br><br>$C_2H_5Br(l)$ or $CH_3CH_2Br(l)$ | D                      | 2  | 3  | 0  | Irritating to skin and eyes; very irritating upon inhalation; narcotic, may cause liver and kidney damage; harmful if swallowed; highly flammable, forms explosive mixture with air; possible carcinogen, mutagen. | B, D1, D2   | 5             | 6.1              | WF/I                            |
| 105-54-4   | ethyl butyrate -----<br>liquid<br><br>$C_6H_{12}O_2(l)$                                         | B                      | 1  | 3  | 0  | Vapours may cause skin, eye, mucous membrane and upper respiratory tract irritation; may be absorbed through skin; highly flammable liquid.                                                                        | B           | 5             | 3                | WF/I                            |
| 107-06-2   | ethylene dichloride --<br>liquid<br>( <i>1,2 - dichloroethane</i> )                             | D                      | 2  | 3  | 0  | Harmful if swallowed, inhaled or absorbed through skin; causes irritation to skin, eyes and respiratory tract;                                                                                                     | B, D1, D2   | 5             | 3<br>(6.1)       | WF/I                            |

| CAS Number | Chemical Name(s), State and Formula                                                                                                  | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                             | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | $\text{ClCH}_2\text{CH}_2\text{Cl(l)}$                                                                                               |                        |    |    |    | inhalation of concentrated amounts affects the central nervous system, liver, kidneys and cardiovascular system; highly flammable liquid and vapour; possible human carcinogen.                                     |             |               |                  |                  |
| 107-15-3   | ethylenediamine ----- liquid<br>(1,2-ethanediamine)<br>$\text{C}_2\text{H}_8\text{N}_2(\text{l})$                                    | D                      | 3  | 2  | 0  | Corrosive; causes burns to any area of contact; very destructive of mucous membranes; harmful if inhaled, swallowed or absorbed through skin; flammable liquid and vapours; mutagen, negative reproductive effects. | D2          | 5             | 8<br>(3)         | WF/I             |
| 60-00-4    | ethylenedinitrilotetraacetic acid (EDTA) ----- powder<br>(edetic acid)<br>$\text{C}_{10}\text{H}_{16}\text{N}_2\text{O}_8(\text{s})$ | A                      | 2  | 0  | 0  | Causes eye irritation; may cause irritation to skin and respiratory tract; may be harmful if swallowed or inhaled.                                                                                                  | NC          | 8             | NR               | WF/I             |
| 107-21-1   | ethylene glycol ----- liquid (1,2-ethanediol)<br>$\text{C}_2\text{H}_6\text{O}_2(\text{l})$                                          | B                      | 2  | 1  | 0  | Irritating to skin, eyes and respiratory system; harmful if swallowed, can be lethal to some people; possible risk to fertility and fetal development; combustible at higher temperatures.                          | D2          | 8             | 3                | WF/I             |
| 60-29-7    | ethyl ether ----- liquid<br>(diethyl ether)                                                                                          | D                      | 2  | 4  | 1  | Causes skin, eye and respiratory irritation; harmful by ingestion,                                                                                                                                                  | B, D2       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                            | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                          | WHMIS Class  | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|------------------|------------------|
|            | $C_4H_{10}O(l)$                                                                                                                |                        |    |    |    | inhalation or skin absorption; may cause inebriation or coma; extremely flammable; unstable, reacts with air to form explosive peroxides while in storage.                                                                                                                       |              |               |                  |                  |
| 75-03-6    | ethyl iodide ----- liquid<br>(iodoethane)<br><br>$C_2H_5I(l)$                                                                  | C                      | 2  | 1  | 1  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; can affect the nervous system and motor control with repeated exposure; reacts with water forming toxic fumes; decomposes in light and air releasing free iodine; combustible if heated. | D2           | 8             | 6.1              | WF/I             |
| n/a        | Fehling's reagent A -----<br>solution<br><u>mixture</u> :<br>copper(II) sulfate -- 4.43%<br>water ----- 95.57%<br>$CuSO_4(aq)$ | B                      | 2  | 0  | 0  | Splashes may cause irritation to skin or eyes, misting or vapours from heating may cause irritation of the respiratory tract; may be harmful if swallowed.                                                                                                                       | D1,<br>D2, E | 8             | 9                | WF/I or<br>N/P-D |

| CAS Number                  | Chemical Name(s), State and Formula                                                                                                                                                        | Use in School Category | H* | F* | R*           | Hazards                                                                                                                                                                                                                                                     | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a                         | Fehling's reagent B ----- solution<br><u>mixture</u> : sodium potassium tartrate ----- 24% potassium hydroxide - 7% water ----- 69%                                                        | B                      | 2  | 0  | 0            | Splashes cause eye and skin burns; may cause severe respiratory or digestive tract irritation and burns if inhaled or ingested.                                                                                                                             | D2, E       | 8             | 8                | D                |
| 68476-25-5<br><br>1332-58-7 | feldspar-group minerals--- ----- chunks<br>x Al(Al,Si)3O8, where x= Na, K, Ca, etc<br><br>Kaolinite<br>H <sub>4</sub> Al <sub>2</sub> Si <sub>2</sub> O <sub>9</sub> •SiO <sub>2</sub> (s) | A                      | 1  | 0  | 0            | Dust may irritate skin, eyes, respiratory and digestive tracts; repeated prolonged inhalation can lead to silicosis.                                                                                                                                        | NC          | 8             | NR               | T                |
| 1343-88-0                   | florisil ----- solid<br>(magnesia-silica gel)<br>MgO3.75 SiO <sub>2</sub> •XH <sub>2</sub> O(s)                                                                                            | A                      | 1  | 0  | 0            | May cause irritation of the skin, eyes and respiratory tract.                                                                                                                                                                                               | NC          | 8             | NR               | T                |
| 7782-41-4                   | fluorine ----- gas<br><br>F <sub>2</sub> (g)                                                                                                                                               | D                      | 4  | 0  | 4<br>OX<br>W | Extremely corrosive and toxic gas; direct exposure of skin and eyes produces burns in seconds; severely irritates nose and throat; most powerful oxidizing agent, reacts explosively with a wide range of organic and inorganic substances; water reactive. | D1, C, F    | 6, 7          | 2.3              | RS               |
| 14542-23-5<br>(7789-75-5)   | fluorite ----- solid<br>(calcium fluoride, fluorspar)                                                                                                                                      | A                      | 2  | 0  | 0            | Dust may cause irritation to skin, eyes and respiratory tract; may be harmful if swallowed or                                                                                                                                                               | NC          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                           | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | CaF <sub>2</sub> (s)                                                                                                                               |                        |    |    |    | inhaled.                                                                                                                                                                                                                                                          |             |               |                  |                  |
| 50-00-0    | formaldehyde ----- solution<br>( <i>formalin, methanal</i> )<br><br>CH <sub>2</sub> O(aq)                                                          | D                      | 3  | 2  | 0  | Toxic by inhalation, ingestion and through skin absorption; extremely destructive to tissues of the mucous membranes and upper respiratory tract; ingestion may be fatal or cause blindness; flammable liquid and vapour; mutagen; probable human carcinogen.     | B, D1, D2   | 5             | 3<br>(8)         | WF/I             |
| 50-00-0    | formalin ----- solution<br><br>CH <sub>2</sub> O(aq)                                                                                               | C                      | 2  | 2  | 0  | Harmful by inhalation and through skin absorption; causes irritation to skin, eyes and respiratory tract; ingestion may be fatal or cause blindness; mutagen; probable human carcinogen; flammable vapour.                                                        | B, D1, D2   | 5             | 9                | WF/I             |
| 64-18-6    | formic acid ----- solution<br>( <i>methanoic acid</i> )<br><u>mixture</u> :<br>formic acid ----- 85 - 98%<br>water ----- 02 - 15%<br><br>HCOOH(aq) | B                      | 3  | 2  | 0  | Corrosive; causes severe burns to skin, eyes, mucous membranes and respiratory tract; may be fatal by ingestion, inhalation or skin absorption; flammable liquid; decomposes to produce carbon monoxide during prolonged storage thus potential explosive hazard. | B, E        | 1, 5          | 8                | WF/I or N/P-D    |

| CAS Number | Chemical Name(s), State and Formula                                            | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                       | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------|------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 57-48-7    | d-fructose ----- powder<br>$C_6H_{12}O_6(s)$                                   | A                      | 1  | 1  | 0  | Powder may cause mild irritation of the eyes and respiratory tract; flammable if heated.                                                                                                                      | NC          | 8             | NR               | T                |
| 3244-88-0  | fuchsin acid -----powder<br>(acid violet 19)<br>$C_{20}H_{17}N_3Na_2O_9S_3(s)$ | B                      | 2  | 1  | 0  | May cause irritation of skin, eyes and respiratory tract; may be harmful if swallowed, inhaled or absorbed through skin; combustible if heated.                                                               | D2          | 3             | NR               | T                |
| 110-17-8   | fumaric acid ----- powder<br>(2-butenedioic acid)<br>$C_4H_4O_4(s)$            | B                      | 2  | 1  | 0  | May cause skin, respiratory and digestive tract irritation; causes eye irritation; may cause kidney damage, flammable if heated.                                                                              | D2          | 3             | NR               | WF/I or N/P-D    |
| 26566-61-0 | galactose ----- powder<br>$C_6H_{12}O_6(s)$                                    | A                      | 0  | 1  | 0  | No adverse affects; combustible if heated or ignited, dust-air mixture explosive.                                                                                                                             | NC          | 8             | NR               | T                |
| 12179-39-4 | galena ----- solid<br>(lead(II) sulphide)<br>$PbS(s)$                          | A                      | 2  | 0  | 0  | Dust may irritate the skin and eyes; harmful if swallowed or inhaled.                                                                                                                                         | D1          | 8             | 6.1              | T                |
| 7440-55-3  | gallium --- solid or powder<br><br>$Ga(s)$                                     | A                      | 2  | 0  | 0  | Causes skin, eye and respiratory tract irritation; may cause gastro-intestinal tract irritation with nausea, vomiting and diarrhea; may cause bone marrow abnormalities with damage to blood forming tissues. | D2          | 8             | 8                | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                            | Use in School Category  | H* | F* | R* | Hazards                                                                                                                                                                                                               | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods         |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|--------------------------|
| n/a        | gentian violet ----- solution<br><u>mixture</u> :<br>methyl alcohol -----<br>20.0%<br>water ----- 78.5%<br>ammonium oxalate- 1.0%<br>gentian violet ----- 0.5% | B                       | 2  | 1  | 0  | May cause irritation to skin, eyes, respiratory and digestive tracts; harmful and possibly fatal if swallowed or inhaled in excess; flammable vapours.                                                                | D1,<br>D2   | 8             | NR               | D                        |
| 548-62-9   | gentian violet ----- powder<br>( <i>crystal violet</i> )<br><br>$C_{25}H_{30}N_3Cl(s)$                                                                         | B                       | 2  | 1  | 0  | May cause skin and respiratory irritation; causes severe eye irritation; harmful if swallowed; may be harmful if inhaled; combustible if heated or ignited, air-powder mixture explosive; may be a human carcinogen.  | D1,<br>D2   | 8             | 6.1              | T                        |
| 7440-56-4  | germanium–powder/solid<br><br>Ge(s)                                                                                                                            | B - solid<br>C - powder | 2  | 2  | 0  | Causes skin, eye, mucous membrane and respiratory tract irritation; may be harmful if absorbed through skin, inhaled or ingested; may cause damage to liver and kidneys; flammable solid, dust-air mixture explosive. | B, D2       | 8             | 6.1              | T- solid<br>WF/I- powder |
| 77-06-5    | gibberellic acid --- powder<br>$C_{19}H_{22}O_6(s)$                                                                                                            | A                       | 1  | 1  | 0  | May cause skin, eye, respiratory and digestive tract irritation; flammable if heated.                                                                                                                                 | NC          | 3             | NR               | D                        |
| 50-99-7    | glucose ----- powder<br>( <i>dextrose</i> )<br>$C_6H_{12}O_6(s)$                                                                                               | A                       | 0  | 1  | 0  | No adverse affects.<br>Flammable if heated.                                                                                                                                                                           | NC          | 8             | NR               | T                        |

| CAS Number | Chemical Name(s), State and Formula                                                                       | Use in School Category  | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------|-------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 56-86-0    | glutamic acid ----- crystals<br><br>$C_5H_9NO_4(s)$                                                       | A                       | 1  | 1  | 0  | May cause skin, eye, respiratory and digestive tract irritation; combustible if heated or ignited, dust-air mixture explosive.                                                                                                                                                                         | NC          | 3             | NR               | WF/I or N/P-T    |
| 56-81-5    | glycerin ----- viscous liquid<br>( <i>glycerol</i> ,<br><i>1,2,3-propanetriol</i> )<br><br>$C_3H_8O_3(l)$ | A                       | 1  | 1  | 0  | May cause skin and eye irritation; ingestion of large amounts may cause irritation of the intestinal tract; inhalation of mist may irritate the respiratory tract; contact with strong oxidants (chromium trioxide, potassium chlorate, potassium permanganate) may be explosive; flammable if heated. | NC          | 8             | NR               | D                |
| 56-40-6    | glycine ----- crystals<br><br>$C_2H_5NO_2(s)$                                                             | A                       | 1  | 0  | 0  | May cause skin, eye, respiratory and digestive tract irritation, the latter with ingestion of large amounts.                                                                                                                                                                                           | NC          | 8             | NR               | T                |
| 9005-79-2  | D-glycogen ----- powder<br>( <i>animal starch</i> )<br>$(C_6H_{10}O_5)_n(s)$                              | A                       | 0  | 1  | 0  | No adverse health effects; flammable if heated or ignited, air-dust mixture explosive.                                                                                                                                                                                                                 | NC          | 8             | NR               | T                |
| 7440-57-5  | gold ---- powder or pieces<br>$Au(s)$                                                                     | A                       | 1  | 0  | 0  | Powder may cause, eye, respiratory and digestive tract irritation.                                                                                                                                                                                                                                     | NC          | 8             | NR               | R                |
| 7782-42-5  | graphite ----- solid<br>( <i>carbon</i> )<br><br>$C(s)$                                                   | A - solid<br>B - powder | 1  | 1  | 0  | Dust may cause skin, eye and respiratory tract irritation; may be harmful if inhaled; cancer hazard with long-term exposure if                                                                                                                                                                         | NC          | 8             | 4.2              | T                |

| CAS Number | Chemical Name(s), State and Formula                                                 | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                       | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------|------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                     |                        |    |    |    | quartz present; flammable solid.                                                                                                                                                                              |             |               |                  |                  |
| 14762-51-7 | halite ----- crystalline<br>(sodium chloride)<br>NaCl(s)                            | A                      | 1  | 0  | 0  | Dust may cause irritation to eyes, skin and respiratory tract.                                                                                                                                                | NC          | 8             | NR               | T                |
| 1317-60-8  | hematite -----<br>chunks<br>(iron(III) oxide)<br>Fe <sub>2</sub> O <sub>3</sub> (s) | A                      | 0  | 0  | 0  | No adverse effects.                                                                                                                                                                                           | NC          | 8             | NR               | T                |
| 142-82-5   | n-heptane ----- liquid<br><br>C <sub>7</sub> H <sub>16</sub> (l)                    | B                      | 1  | 3  | 0  | Causes skin and eye irritation; ingestion causes irritation with nausea, vomiting and diarrhea; inhalation causes respiratory tract irritation with dizziness headache and unconsciousness; flammable liquid. | B           | 5             | 3                | WF/I             |
| 110-54-3   | n-hexane ----- liquid<br><br>C <sub>6</sub> H <sub>14</sub> (l)                     | B                      | 2  | 3  | 0  | Harmful by skin absorption, inhalation or ingestion; vapours irritating to mucous membranes and respiratory tract; may cause liver and kidney damage; flammable.                                              | B, D2       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                            | Use in School Category             | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                  | WHMIS Class  | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|------------------|------------------|
| 124-09-4   | 1,6-hexanediamine -- solid<br>( <i>hexamethylenediamine</i> )<br><br>C <sub>6</sub> H <sub>16</sub> N <sub>2</sub> (s)                         | C                                  | 3  | 2  | 0  | Corrosive; may cause severe irritation and possible burns to skin, eyes, respiratory and digestive tracts; may be harmful if swallowed, inhaled or absorbed through skin; may cause liver damage; may cause fetal effects; flammable solid.                              | E            | 4             | 8                | WF/I             |
| 71-00-1    | L-(-)-histidine ----- crystals<br>C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub> (s)                                              | A                                  | 1  | 0  | 0  | May cause irritation to skin, eyes, digestive and respiratory tracts.                                                                                                                                                                                                    | NC           | 8             | NR               | T                |
| 7647-01-0  | hydrochloric acid-- solution<br>( <i>muriatic acid</i> )<br><u>mixture</u> :<br>HCl ----- 36.5%<br>H <sub>2</sub> O ----- 63.5%<br><br>HCl(aq) | A - 5% or less<br>B - more than 5% | 3  | 0  | 0  | Corrosive; causes eye and skin burns; harmful if vapours inhaled or liquid swallowed, may cause severe respiratory or digestive tract irritation with possible burns; may cause fetal effects.                                                                           | [<br>D1, E   | 1             | 8                | WF/I or N/P-D    |
| 7664-39-3  | hydrofluoric acid-- solution<br><u>mixture</u> :<br>HF ----- 48 - 52%<br>H <sub>2</sub> O ----- 48 - 52%<br><br>HF(aq)                         | D                                  | 4  | 0  | 1  | Extremely corrosive and toxic; vapour causes severe burns to skin, eyes and respiratory tract; burns to skin may not be immediately painful or visible; may be fatal if swallowed or inhaled; causes bone damage; reaction with metals generates explosive hydrogen gas. | D1,<br>D2, E | 1             | 8<br>(6.1)       | WF/I or N/P-D    |
| 1333-74-0  | hydrogen ----- gas                                                                                                                             | B                                  | 0  | 4  | 0  | No adverse effects; highly                                                                                                                                                                                                                                               |              | 8             | 2.1              | A                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                              | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                                                                         | WHMIS Class  | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|------------------|------------------|
|            | H <sub>2</sub> (g)                                                                                                                               |                        |    |    |         | flammable gas.                                                                                                                                                                                                                                                                                                                  | A, B         |               |                  |                  |
| 74-90-8    | hydrogen cyanide -- liquid or gas<br><i>(hydrocyanic or prussic acid if aq)</i><br>HCN(l) or HCN(g)                                              | D                      | 4  | 4  | 2       | Very toxic; severe irritation of eyes and respiratory tract; very toxic by inhalation, skin contact or ingestion; potentially fatal if inhaled or swallowed; highly flammable, vapours may cause flash fire; avoid contact or mixing with oxidizers, alkalis, amines, sulfuric acid, acetaldehyde, hydrogen chloride + alcohol. | B, D1, D2, E | 5, 1          | 6.1              | WF/I             |
| 7722-84-1  | hydrogen peroxide -----<br>solution<br><u>mixture</u> :<br>hydrogen peroxide -- 30%<br>water ----- 70%<br><br>H <sub>2</sub> O <sub>2</sub> (aq) | B                      | 3  | 0  | 1<br>OX | Corrosive; causes burns to skin, eyes and respiratory tract; harmful if swallowed or inhaled; strong oxidizer, contact with oxidizable material may cause violent combustion; decomposes into water and oxygen; can decompose violently upon heating.                                                                           | C, E, F      | 6             | 5.1<br>(8)       | D                |
| 7722-84-1  | hydrogen peroxide -----<br>solution<br><u>mixture</u> :<br>hydrogen peroxide-2 - 4%<br>water ----- 96 - 98%                                      | A                      | 1  | 0  | 1<br>OX | Causes eye irritation, may be harmful if swallowed; oxidizer; decomposes into water and oxygen.                                                                                                                                                                                                                                 | C            | 6             | NR               | D                |

| CAS Number | Chemical Name(s), State and Formula                                                                                            | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                                                                                                                     | WHMIS Class  | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|------------------|------------------|
|            | H <sub>2</sub> O <sub>2</sub> (aq)                                                                                             |                        |    |    |    |                                                                                                                                                                                                                                                                                                                                                                                             |              |               |                  |                  |
| 7783-06-4  | hydrogen sulfide ----- gas<br><br>H <sub>2</sub> S(g)                                                                          | D                      | 4  | 0  | 0  | Very corrosive and toxic; low concentrations (50 ppm) cause eye and respiratory membrane irritation; death occurs in 1–4 hours at 300–500 ppm, immediate respiratory arrest in excess of 1000 ppm; toxic by ingestion or inhalation; severe exposures, short of death, may cause long-term symptoms including lung damage, memory loss, paralysis of facial muscles or nerve tissue damage. | A, D1, D2, E | 8             | 2.3 (2.1)        | RS               |
| 123-31-9   | hydroquinone ---- crystals<br>(1,4-benzenediol)<br><br>C <sub>6</sub> H <sub>6</sub> O <sub>2</sub> (s)                        | B                      | 2  | 1  | 0  | Causes irritation to skin, respiratory tract and eyes; repeated exposure to dust may cause eye injury; harmful if inhaled or swallowed; combustible if heated or ignited, powder-air mixture explosive.                                                                                                                                                                                     | D1, D2       | 8             | 6.1              | WF/I             |
| 860-22-0   | indigo carmine ----- powder<br>C <sub>16</sub> H <sub>8</sub> N <sub>2</sub> Na <sub>2</sub> O <sub>8</sub> S <sub>2</sub> (s) | A                      | 2  | 0  | 0  | May cause skin or eye irritation; may be harmful if swallowed, inhaled or absorbed through skin.                                                                                                                                                                                                                                                                                            | NC           | 8             | NR               | T                |
| 7440-74-6  | indium ----- solid<br><br>In(s)                                                                                                | A                      | 1  | 1  | 0  | Solid has low toxicity; high concentrations of dust may irritate eyes, mucous membranes, skin and                                                                                                                                                                                                                                                                                           | NC           | 6             | NR               | T                |

| CAS Number         | Chemical Name(s), State and Formula                                                            | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                                | WHMIS Class  | Storage Class | TDG Hazard Class | Disposal Methods |
|--------------------|------------------------------------------------------------------------------------------------|------------------------|----|----|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|------------------|------------------|
|                    |                                                                                                |                        |    |    |         | upper respiratory tract; flammable dust-air mixture.                                                                                                                                                                                                                                   |              |               |                  |                  |
| 87-51-4            | 3-indoleacetic acid --- solid<br>( <i>heteroauxin</i> , IAA)<br>$C_{10}H_9NO_2(s)$             | A                      | 0  | 0  | 0       | No adverse effects to skin, eyes, respiratory or digestive tracts; may cause fetal effects with chronic exposure based on animal studies.                                                                                                                                              | NC           | 8             | NR               | WF/I or N/P-D    |
| 5418-32-6          | indophenol sodium salt ----- crystals<br>$C_{12}H_8NaNO_2(s)$                                  | B                      | 1  | 1  | 0       | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; flammable if heated or ignited.                                                                                                                                         | D1           | 8             | NR               | WF/I             |
| 6917-35-7& 87-89-8 | inositol & myo-inositol ----- crystals<br>( <i>hexahydrocyclohexane</i> )<br>$C_6H_6(OH)_6(s)$ | B                      | 1  | 1  | 0       | May cause skin, eye or respiratory tract irritation; flammable if ignited or heated, dust-air mixture explosive.                                                                                                                                                                       | NC           | 8             | NR               | T                |
| 7553-56-2          | iodine ----- crystals<br>$I_2(s)$                                                              | B                      | 3  | 0  | 1<br>OX | Corrosive; crystals and vapours cause severe irritation or burns to skin, eyes, respiratory tract and any area of contact; may be fatal if swallowed or inhaled; affects cardiovascular and central nervous systems; strong oxidizer, contact with oxidizable material may cause fire. | C, D1, D2, E | 6<br>(7)      | 6.1<br>(8)       | WF/I or N/P-D    |

| CAS Number        | Chemical Name(s), State and Formula                                                                                                                                     | Use in School Category | H* | F* | R*                | Hazards                                                                                                                                                                                                                                                                                    | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 75-03-6           | iodoethane -----<br>liquid<br>(ethyl iodide)<br><br>C <sub>2</sub> H <sub>5</sub> I(l)                                                                                  | B                      | 2  | 1  | 1<br><del>W</del> | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; narcotic, can affect the nervous system and motor control with repeated exposure; reacts with water forming toxic fumes; decomposes in light and air releasing free iodine; combustible if heated. | D2          | 8             | 6.1              | WF/I             |
| 7439-89-6         | iron -----<br>powder<br>Fe(s)                                                                                                                                           | B                      | 1  | 1  | 1                 | A skin, eye and mucous membrane irritant; combustible if powder is exposed to flame.                                                                                                                                                                                                       | NC          | 8             | 4.1              | T                |
| 7439-89-6         | iron -----<br>filings<br>Fe(s)                                                                                                                                          | A                      | 0  | 0  | 0                 | No adverse effects.                                                                                                                                                                                                                                                                        | NC          | 8             | NR               | R or T           |
| 1185-57-5         | iron(III) ammonium citrate -----<br>powder<br><br>xFe•xNH <sub>3</sub> •C <sub>6</sub> H <sub>8</sub> O <sub>7</sub> (s)                                                | A                      | 0  | 1  | 0                 | May cause irritation to skin, eyes and respiratory tract; may be harmful if swallowed; combustible if heated.                                                                                                                                                                              | NC          | 8             | 9.2              | WF/I             |
| 7783-85-9         | iron(II) ammonium sulfate hexahydrate -----<br>crystals<br>(mohr's salt)<br><br>Fe(NH <sub>4</sub> ) <sub>2</sub> (SO <sub>4</sub> ) <sub>2</sub> •6H <sub>2</sub> O(s) | A                      | 2  | 0  | 0                 | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; may cause liver damage and cardiac disturbances; decomposes if heated.                                                                                                                             | NC          | 8             | 9                | WF/I or N/P-D    |
| n/a<br>10138-04-2 | iron(III) ammonium sulfate -----<br>crystals                                                                                                                            | A                      | 1  | 0  | 0                 | May cause irritation of the skin, eyes, respiratory and digestive tracts; may cause cardiac                                                                                                                                                                                                | NC          | 5             | NR               | WF/I or N/P-D    |

| CAS Number | Chemical Name(s), State and Formula                                                                         | Use in School Category               | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                 | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------|----|----|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | FeNH <sub>4</sub> SO <sub>4</sub> (s)                                                                       |                                      |    |    |         | disturbances, and liver and kidney damage.                                                                                                                                                                                                                              |             |               |                  |                  |
| n/a        | iron(II) chloride hydrate ----- crystals<br><br>FeCl <sub>2</sub> •xH <sub>2</sub> O(s)                     | B                                    | 3  | 0  | 1       | Corrosive; causes severe irritation to skin, eyes, mucous membranes and respiratory tract; harmful by skin absorption, inhalation or ingestion; may cause liver, kidney, pancreas damage and cardiovascular collapse; reacts violently with oxidizing agents; unstable. | E           | 8             | 8                | WF/I or N/P-D    |
| 10025-77-1 | Iron(III) chloride hexahydrate ----- crystals<br><br>FeCl <sub>3</sub> •6H <sub>2</sub> O(s)                | B - crystals<br>C - powder anhydrous | 3  | 0  | 0       | Corrosive; extremely destructive to tissues of skin, eyes, mucous membranes and upper respiratory, tract; swallowing can cause severe burns to mouth, throat and stomach; affects the liver.                                                                            | D1, E, F    | 8             | 5.1              | WF/I or N/P-D    |
| 7782-61-8  | iron(III) nitrate nonahydrate ----- crystals<br><br>Fe(NO <sub>3</sub> ) <sub>3</sub> •9H <sub>2</sub> O(s) | A                                    | 2  | 0  | 0<br>ox | Causes severe irritation of the skin, eyes and respiratory tract; harmful if inhaled or ingested; affects the liver; strong oxidizer, contact with flammable material may cause fire.                                                                                   | C           | 6             | 5.1              | WF/I             |
| 1309-37-1  | Iron(III) oxide ----- powder<br>Fe <sub>2</sub> O <sub>3</sub> (s)                                          | A                                    | 2  | 0  | 0       | May cause irritation to skin, eyes and respiratory tract, harmful if inhaled.                                                                                                                                                                                           | NC          | 8             | NR               | WF/I or N/P-D    |

| CAS Number | Chemical Name(s), State and Formula                                                                                                  | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                           | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a        | iron(III) sulfate, hydrated ----- powder<br>$\text{Fe}_2(\text{SO}_4)_3 \cdot x\text{H}_2\text{O}(\text{s})$                         | A                      | 2  | 0  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; affects the liver.                                                                                                        | NC          | 8             | NR               | T or D           |
| 7782-63-0  | iron(II) sulfate ----- crystals heptahydrate<br>(ferrous sulfate 7 - hydrate)<br>$\text{FeSO}_4 \cdot 7\text{H}_2\text{O}(\text{s})$ | A                      | 1  | 0  | 0  | Causes irritation with excessive inhalation or prolonged exposure to skin; exposure to eyes causes irritation that could be damaging; low toxicity, used as a food and feed iron supplement.                      | D2          | 8             | NR               | T                |
| 7782-63-0  | iron(II) sulfate heptahydrate ----- powder<br>$\text{FeSO}_4 \cdot 7\text{H}_2\text{O}(\text{s})$                                    | A                      | 2  | 0  | 0  | Causes severe irritation to eyes; may cause irritation to skin, mucous membranes and respiratory tract; moderately toxic by ingestion; may affect the liver, kidneys, cardiovascular and central nervous systems. | D2          | 8             | NR               | T or D(aq)       |
| 1317-37-9  | iron(II) sulfide ----- powder<br>$\text{FeS}(\text{s})$                                                                              | A                      | 2  | 1  | 0  | Dust causes irritation of skin, eyes and mucous membranes; prolonged inhalation may lead to pulmonary fibrosis, damage to kidneys and liver; dried form flammable, will spontaneously ignite if exposed to air.   | NC          | 8             | 4.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                   | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                             | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 123-51-3   | isoamyl alcohol ----- liquid<br>( <i>isopentyl alcohol</i> )<br><br>C <sub>4</sub> H <sub>10</sub> O(l) or<br>(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH <sub>2</sub> OH(l) | B                      | 2  | 2  | 0  | Causes irritation to skin, mucous membranes and respiratory tract, severe irritant to eyes; harmful if swallowed, inhaled or ingested; hematotoxic; affects the central nervous system; flammable liquid and vapour, emits toxic fumes when burned. | B, D2       | 5             | 3                | WF/I             |
| 123-51-3   | isopentyl alcohol -- liquid<br>( <i>iso-amyI alcohol</i> )<br><br>C <sub>5</sub> H <sub>12</sub> O(l) or<br>(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH <sub>2</sub> OH(l)   | B                      | 2  | 2  | 0  | Causes irritation to skin, mucous membranes and respiratory tract, severe irritant to eyes; harmful if swallowed, inhaled or ingested; hematotoxic; affects the central nervous system; flammable liquid and vapour, emits toxic fumes when burned. | B, D2       | 5             | 3                | WF/I             |
| 8008-20-6  | kerosene (kerosine) - liquid<br><u>mixture</u> :<br>aromatics----- 15.9%<br>cycloparaffins ----- 52.8%<br>paraffins ----- 30.8%<br>alkenes ----- 0.5%                                 | B                      | 0  | 3  | 0  | May cause irritation of eyes, mucous membranes, skin and lungs with prolonged or repeated exposure; overexposure may affect the central nervous system and cause heartbeat irregularities; flammable mixture.                                       | B, D2       | 5             | 3                | WF/I             |
| 525-79-1   | kinetin -----<br>solid<br>C <sub>10</sub> H <sub>9</sub> N <sub>5</sub> O(s)                                                                                                          | A                      | 0  | 0  | 0  | May cause irritation of the skin, eyes, respiratory and digestive tracts.                                                                                                                                                                           | NC          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                                                                                                                                      | Use in School Category   | H* | F* | R* | Hazards                                                                                                                                                                                                                               | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a        | Knop's reagent ----<br>solution<br><u>mixture</u> :<br>MgSO <sub>4</sub> · 7H <sub>2</sub> O ----- 1.0g<br>KH <sub>2</sub> PO <sub>4</sub> ----- 0.2g<br>KNO <sub>3</sub> ----- 1.0g<br>Ca(NO <sub>3</sub> ) · 4H <sub>2</sub> O --- 1.0g<br>FeCl <sub>3</sub> (1% soln.) -- 1.0<br>drop<br>H <sub>2</sub> O ----- 1.0 L | A                        | 1  | 0  | 0  | May cause irritation of the skin, eyes, respiratory and digestive tract.                                                                                                                                                              | D2          | 8             | NR               | D                |
| 50-21-5    | lactic acid - crystals/liquid<br>(2-hydroxypropanoic acid)<br><br>C <sub>3</sub> H <sub>6</sub> O <sub>3</sub> (s) or<br>CH <sub>3</sub> CHOHCOOH(s)                                                                                                                                                                     | B                        | 3  | 1  | 0  | Corrosive; causes irritation and burns to any area of contact; harmful if swallowed or inhaled; extremely destructive to tissue of the skin, eyes, mucous membranes and respiratory tract; crystals combustible if heated or ignited. | E           | 3             | 8                | WF/I or N/P-D    |
| 63-42-3    | lactose ---<br>crystals/powder<br><br>C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> (s)                                                                                                                                                                                                                                | A                        | 0  | 1  | 0  | Dust may cause eye and skin irritation; dust-air mixture explosive, combustible solid if heated.                                                                                                                                      | NC          | 8             | NR               | T                |
| 143-07-7   | lauric acid ----- crystals<br>(dodecanoic acid)<br>C <sub>12</sub> H <sub>24</sub> O <sub>2</sub> (s) or<br>CH <sub>3</sub> (CH <sub>2</sub> ) <sub>10</sub> COOH(s)                                                                                                                                                     | B                        | 1  | 1  | 0  | May cause irritation of the skin, eyes, respiratory and digestive tract; combustible if heated or ignited, fine dust-air mixture explosive.                                                                                           | D2          | 3             | NR               | WF/I or N/P-D    |
| 7439-92-1  | lead metal ----- strips                                                                                                                                                                                                                                                                                                  | B - strips<br>D - powder | 3  | 0  | 0  | Toxic, particularly the dust or powder; dust causes irritation to skin, eyes and respiratory tract; may be                                                                                                                            |             | 8             | 9                | R                |

| CAS Number | Chemical Name(s), State and Formula                                       | Use in School Category  | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                                                                           | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------|-------------------------|----|----|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | Pb(s)                                                                     |                         |    |    |         | fatal if swallowed or if dust inhaled; a neurotoxin with prolonged exposure but also affects the kidneys, blood and reproductive system; possible human carcinogen dependent on duration and level of exposure.                                                                                                                   | D2          |               |                  |                  |
| 10099-74-8 | lead(II) nitrate ---- powder<br><br>Pb(NO <sub>3</sub> ) <sub>2</sub> (s) | B                       | 2  | 0  | 0<br>OX | May cause skin, eye and respiratory tract irritation; may cause digestive tract irritation with nausea, vomiting and diarrhea; can be fatal if enough dust is inhaled or if ingested; neurotoxin with chronic or prolonged exposure, affects the central nervous system, kidneys, blood and reproductive system; strong oxidizer. | C, D1, D2   | 6             | 5.1<br>(6.1)     | WF/I             |
| n/a        | Lead compounds (other than nitrate) -----<br>powders                      | C - soln.<br>D - powder | 3  | 0  | 0       | Toxic; cause skin, eye and respiratory tract irritation; may be fatal if swallowed or inhaled; neurotoxin with chronic or prolonged exposure, also affects the kidneys, blood, liver and reproductive system; Pb phosphate and Pb acetate are a cancer hazard in humans.                                                          | D1, D2      | 8             | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                  | Use in School Category | H* | F* | R*                | Hazards                                                                                                                                                                                                              | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 1305-62-0  | lime water ----- solution<br><u>mixture</u> :<br>Ca(OH) <sub>2</sub> ----- 0.16%<br>H <sub>2</sub> O -----<br>99.84%<br><br>Ca(OH) <sub>2</sub> (aq) | A                      | 0  | 0  | 0                 | May cause irritation of the skin, eyes, respiratory and digestive tracts.                                                                                                                                            | NC          | 8             | NR               | D                |
| 7439-93-2  | lithium ----- solid<br><br>Li(s)                                                                                                                     | C                      | 3  | 2  | 1<br><del>W</del> | Corrosive; causes eye and skin burns; may cause severe respiratory or digestive tract irritation or burns; may cause kidney damage and central nervous effects; light sensitive; reacts with water; flammable solid. | B, E        | 4             | 4.3              | WF/I             |
| 6108-17-4  | lithium acetate dihydrate ----- crystals<br><br>LiCH <sub>3</sub> COO•2H <sub>2</sub> O(s)                                                           | A                      | 2  | 0  | 0                 | Causes eye irritation; may cause irritation of the skin, respiratory and digestive tracts; harmful if swallowed, inhaled or adsorbed through skin; may cause kidney damage and central nervous effects.              | D2          | 8             | NR               | T                |
| 7550-35-8  | lithium bromide, anhydrous --- crystals<br><br>LiBr(s)                                                                                               | A                      | 2  | 0  | 0                 | May be harmful if swallowed; causes eye, skin and respiratory tract irritation; chronic or excessive intake may cause kidney, cardiac and central nervous system effects and/or damage.                              | D2          | 8             | NR               | WF/I             |
| 554-13-2   | lithium carbonate - powder                                                                                                                           | A                      | 2  | 0  | 0                 | May cause irritation of the skin, eyes, respiratory and                                                                                                                                                              |             | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                            | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                           | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
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|            | $\text{Li}_2\text{CO}_3(\text{s})$                                                             |                        |    |    |    | digestive tracts; harmful if swallowed or inhaled, affects the central nervous system, muscles and kidneys.                                                                                                       | D2          |               |                  |                  |
| 7447-41-8  | lithium chloride --- crystals<br><br>$\text{LiCl}(\text{s})$                                   | A                      | 2  | 0  | 0  | Causes irritation of the skin, eyes and respiratory tract, skin irritation may be severe; harmful if swallowed or inhaled, affects the central nervous system, muscles and kidneys.                               | D2          | 8             | NR               | T                |
| 7789-24-4  | lithium fluoride ---- crystals<br><br>$\text{LiF}(\text{s})$                                   | B                      | 2  | 0  | 0  | May cause severe eye and skin irritation and possible burns; causes respiratory or digestive tract irritation; may cause kidney damage, central nervous effects, cardiac disturbances and skeletal abnormalities. | D2          | 8             | 6.1              | WF/I             |
| 1310-66-3  | lithium hydroxide monohydrate ----- crystals<br>$\text{LiOH}\cdot\text{H}_2\text{O}(\text{s})$ | B                      | 3  | 0  | 0  | Corrosive; causes burns to any area of contact; may be fatal if swallowed or inhaled.                                                                                                                             | D1, E       | 2             | 8                | WF/I or N/P-D    |
| 10377-51-2 | lithium iodide ----- crystals<br><br>$\text{LiI}(\text{s})$                                    | B                      | 2  | 0  | 0  | May be harmful if swallowed; causes eye, skin and respiratory tract irritation; chronic or excessive intake may cause kidney, cardiac and central nervous system effects and/or damage.                           | D2          | 8             | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                               | Use in School Category   | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                                  | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----|----|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7790-69-4  | lithium nitrate ---- granular<br><br>$\text{LiNO}_3(\text{s})$                                                                                                                                    | B - soln.<br>C - granule | 2  | 0  | 3<br>OX | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled, affects the central nervous system, respiratory system, muscles and kidneys; strong oxidizer, contact with combustible material may cause fire; dangerous explosive risk when shocked or heated. | C, D1, D2   | 6             | 5.1              | WF/I             |
| 10377-48-7 | lithium sulfate ----- crystals<br><br>$\text{Li}_2\text{SO}_4 \cdot \text{H}_2\text{O}(\text{s})$                                                                                                 | B                        | 2  | 0  | 0       | May cause irritation to skin, eyes and respiratory tract; harmful if inhaled or swallowed; affects muscles, lungs, central nervous system and kidneys.                                                                                                                                   | NC          | 8             | NR               | T or D(aq)       |
| n/a        | litmus blue ----- powder<br>(lichenblue)<br><br>formula (variable)                                                                                                                                | A                        | 2  | 0  | 0       | Causes irritation to skin, eyes and intestinal tract; may be harmful if swallowed, inhaled or adsorbed through skin.                                                                                                                                                                     | NC          | 8             | NR               | T                |
| n/a        | Lugol's iodine stain ----- solution<br>(bouchardat's reagent)<br><u>mixture:</u><br>$\text{I}_2$ ----- 5%<br>KI ----- 10%<br>$\text{CH}_3\text{COOH}$ ----- 10%<br>$\text{H}_2\text{O}$ ----- 75% | B                        | 2  | 0  | 1       | Causes irritation to skin, eyes and respiratory tract; may burn skin on contact; harmful if swallowed or inhaled; chronic low-level ingestion may cause mental depression, nervousness, insomnia and sexual impotence.                                                                   | D2          | 7             | 8<br>(9e)        | WF/I             |
| 8023-70-9  | lycopodium ----- powder<br>(club moss spores,                                                                                                                                                     | B                        | 1  | 2  | 0       | Causes eye and gastro-intestinal tract irritation;                                                                                                                                                                                                                                       |             | 8             | 4.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                         | Use in School Category | H* | F* | R*     | Hazards                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | <i>vegetable sulfur</i><br>formula not applicable                                                                           |                        |    |    |        | may cause irritation of the skin and respiratory tract; possible allergen; flammable powder, easily ignited by open flame, can produce an explosive flash.      | D2          |               |                  |                  |
| 7439-95-4  | magnesium ----- powder<br>Mg(s)                                                                                             | C                      | 0  | 1  | 1<br>W | May cause skin, eye and respiratory tract irritation; flammable solid, burning releases UV light and heat; may react with water to form explosive hydrogen gas. | B, D2       | 8             | 4.1              | WF/I             |
| 7439-95-4  | magnesium ----- strips<br>Mg(s)                                                                                             | A                      | 0  | 1  | 1      | Flammable solid if heated, releases UV light and heat upon burning.                                                                                             | B, D2       | 8             | 4.1              | R                |
| 142-72-3   | magnesium acetate----- powder<br>C <sub>4</sub> H <sub>6</sub> MgO <sub>4</sub> or Mg(CH <sub>3</sub> COO) <sub>2</sub> (s) | A                      | 1  | 0  | 0      | May cause irritation to eyes and respiratory tract.                                                                                                             | NC          | 8             | NR               | T or D(aq)       |
| 7789-48-2  | magnesium bromide ----- granular<br>MgBr <sub>2</sub> (s)                                                                   | A                      | 2  | 0  | 0      | Causes irritation to skin, eyes, respiratory and digestive tracts; may be harmful if swallowed, inhaled or absorbed through skin.                               | D2          | 8             | NR               | T                |
| 546-93-0   | magnesium carbonate ----- powder<br>MgCO <sub>3</sub> (s)                                                                   | A                      | 1  | 0  | 0      | May cause irritation to skin, eyes and respiratory and digestive tracts.                                                                                        | NC          | 8             | NR               | T                |
| 7791-18-6  | magnesium chloride                                                                                                          | A                      | 2  | 0  | 0      | May be harmful by                                                                                                                                               |             | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                             | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                      | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | hexahydrate -----<br>crystals<br>$\text{MgCl}_2 \cdot 6\text{H}_2\text{O}(\text{s})$                                            |                        |    |    |         | ingestion, inhalation or skin absorption.                                                                                                                                                                    | NC          |               |                  |                  |
| 1309-42-8  | magnesium hydroxide -----<br>powder<br>$\text{Mg}(\text{OH})_2(\text{s})$                                                       | A                      | 1  | 0  | 0       | May cause irritation to skin, eyes, digestive and respiratory tracts.                                                                                                                                        | D2          | 2?            | NR               | WF/I or N/P-D    |
| 13446-18-9 | magnesium nitrate hexahydrate -----<br>crystals<br>$\text{Mg}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}(\text{s})$               | A                      | 2  | 0  | 0<br>OX | Causes irritation to skin, eyes and respiratory tract; may be harmful if swallowed or inhaled; strong oxidizer, contact with combustible material may cause fire.                                            | C, D2       | 6             | 5.1              | WF/I             |
| 1309-48-4  | magnesium oxide -<br>powder<br>$\text{MgO}(\text{s})$                                                                           | A                      | 1  | 0  | 0       | May cause irritation to skin, eyes and respiratory tract.                                                                                                                                                    | NC          | 8             | NR               | T                |
| 1335-26-8  | magnesium(IV) oxide ----- powder<br>( <i>magnesium peroxide</i> )<br>$\text{MgO}_2(\text{s})$                                   | B                      | 2  | 0  | 0<br>OX | May cause irritation to skin, eyes, mucous membranes and upper respiratory tract; may be harmful if swallowed, inhaled or absorbed through skin; oxidizer, contact with combustible material may cause fire. | C           | 6             | 5                | T                |
| 10034-99-8 | magnesium sulfate heptahydrate -----<br>powder<br>( <i>epsom salts</i> )<br>$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}(\text{s})$ | A                      | 1  | 0  | 0       | Dust may be slightly irritating to respiratory system, may be harmful if swallowed.                                                                                                                          | NC          | 8             | NR               | T                |
| 1309-38-2  | magnetite -----<br>chunks<br>( <i>iron oxide</i> )                                                                              | A                      | 1  | 0  | 0       | May cause irritation to skin, eyes and respiratory tract; prolonged inhalation                                                                                                                               | NC          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                      | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                    | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | Fe <sub>3</sub> O <sub>4</sub> (s)                                                                                                                                                                       |                        |    |    |    | of dust or fumes may lead to metal fume fever.                                                                                                                                                                                                             |             |               |                  |                  |
| 569-64-2   | malachite green---<br>solution<br><u>mixture</u> :<br>water ----- 55%<br>malachite green ----- 45%                                                                                                       | B                      | 2  | 0  | 0  | Harmful if swallowed; contact with skin, eyes, digestive and respiratory tracts may cause irritation, risk of severe eye damage.                                                                                                                           | NC          | 8             | 8                | WF/I             |
| 569-64-2   | malachite green ---<br>crystals<br>( <i>aniline green, china green, benzaldehyde green</i> ) C <sub>23</sub> H <sub>25</sub> N <sub>2</sub> Cl(s)                                                        | B                      | 2  | 0  | 0  | Harmful if swallowed; contact with skin or eyes may cause irritation and eye damage.<br><br>* Note the two chemical forms.                                                                                                                                 | NC          | 8             | 6.1<br>(8)       | WF/I             |
| 2437-29-8  | malachite green ---<br>crystals<br>( <i>malachite green oxalate; C.I. Basic Green 4, oxalate</i> )<br>C <sub>48</sub> H <sub>50</sub> N <sub>4</sub> O <sub>4</sub> •2HC <sub>2</sub> O <sub>4</sub> (s) | B                      | 2  | 0  | 0  | Harmful by inhalation or ingestion; irritates skin, eyes and mucous membranes.                                                                                                                                                                             | NC          | 6.1, 8        | NR               | WF/I             |
| 110-16-7   | maleic acid -----<br>solid<br>( <i>butenedioic acid, toxilic acid</i> )<br><br>C <sub>4</sub> H <sub>4</sub> O <sub>4</sub> (s)                                                                          | B - soln.<br>C - solid | 3  | 1  | 1  | Corrosive; causes skin and severe eye irritation and possible burns; may cause severe digestive and respiratory tract irritation and possible burns; may be harmful if swallowed or absorbed through skin; may cause kidney damage; combustible if heated. | E           | 3             | 8                | WF/I or<br>N/P-D |
| 108-31-6   | maleic anhydride ---                                                                                                                                                                                     | B - soln.              | 3  | 1  | 1  | Corrosive; causes burns                                                                                                                                                                                                                                    |             | 4, 3, 8       | 8                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                            | Use in School Category  | H* | F* | R* | Hazards                                                                                                                                                                                                                                                   | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods                |
|------------|----------------------------------------------------------------------------------------------------------------|-------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|---------------------------------|
|            | lumps<br>(2,5-furandione)<br><br>C <sub>4</sub> H <sub>2</sub> O <sub>3</sub> (s)                              | C - lump                |    |    |    | to skin and eyes; causes respiratory tract irritation and possible burns, digestive tract irritation with nausea and diarrhea; harmful if swallowed; combustible if heated, dust-air mixture explosive; decomposes slowly with water to form maleic acid. | E           |               |                  |                                 |
| 6915-15-7  | malic acid ----- crystals<br>(hydroxybutanedioic acid)<br><br>C <sub>4</sub> H <sub>6</sub> O <sub>5</sub> (s) | B                       | 1  | 1  | 0  | Causes irritation to skin, eyes and respiratory tract; may be harmful if swallowed; combustible at elevated temperatures or if ignited, dust-air mixture explosive.                                                                                       | NC          | 3             | NR               | WF/I or N/P-D                   |
| 141-82-2   | malonic acid ----- crystals<br>(propanedioic acid)<br><br>CH <sub>2</sub> (COOH) <sub>2</sub> (s)              | B                       | 1  | 1  | 0  | Causes irritation to eyes; may cause irritation to skin and respiratory tract; may be harmful if swallowed; combustible at elevated temperatures or if ignited, dust-air mixture explosive.                                                               | NC          | 3             | NR               | WF/I or N/P -D                  |
| 69-79-4    | maltose ----- granules<br>C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> (s)                                  | A                       | 0  | 1  | 0  | No adverse effects; combustible if heated or ignited, dust-air mixture explosive.                                                                                                                                                                         | NC          | 8             | NR               | T or D(aq)                      |
| 7439-96-5  | manganese— powder/solid                                                                                        | B - solid<br>C - powder | 2  | 1  | 1  | Powder may cause irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled, causing chronic damage to health; chronic                                                                                                               | NC          | 8             | NR               | R /T- solid<br><br>WF/I- powder |

| CAS Number | Chemical Name(s), State and Formula                                                                | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
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|            | Mn(s)                                                                                              |                        |    |    |         | exposure affects the central nervous system; dust is flammable; decomposes slowly in contact with water.                                                                                        |             |               |                  |                  |
| n/a        | manganese(II) carbonate hydrate ----- powder<br>$\text{MnCO}_3 \cdot \text{XH}_2\text{O(s)}$       | A                      | 1  | 0  | 0       | May cause irritation to skin, eyes, digestive and respiratory tracts; chronic inhalation affects the central nervous system.                                                                    | NC          | 8             | NR               | WF/I or N/P-D    |
| 13446-34-9 | manganese(II) chloride tetrahydrate ----- crystals<br>$\text{MnCl}_2 \cdot 4\text{H}_2\text{O(s)}$ | A                      | 2  | 0  | 0       | May cause irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; affects lungs, central nervous system, blood and kidneys.                                            | D2          | 8             | NR               | T or D(aq)       |
| 1313-13-9  | manganese(IV) dioxide ----- powder<br>( <i>manganese dioxide</i> )<br>$\text{MnO}_2(\text{s})$     | A                      | 2  | 0  | 1<br>OX | Causes skin and eye irritation; harmful if inhaled, ingested or absorbed through skin; may affect central nervous system; oxidizing agent, may cause fire in contact with combustible material. | C, D2       | 6             | 5.1              | WF/I or N/P-D    |
| 10034-96-5 | manganese sulfate monohydrate ----- granular<br>$\text{MnSO}_4 \cdot \text{H}_2\text{O(s)}$        | A                      | 2  | 0  | 0       | May cause irritation to skin, eyes and respiratory system; harmful if swallowed or inhaled; affects lungs, central nervous system, blood and kidneys.                                           | D2          | 8             | NR               | T or D(aq)       |

| CAS Number  | Chemical Name(s), State and Formula                                        | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                                               | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|-------------|----------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 3458-28-4   | D-mannose -----<br>crystals<br>(seminose, carubinese)<br>$C_6H_{12}O_6(s)$ | A                      | 0  | 1  | 0  | No adverse affects; will burn if heated and dust-air mixture explosive.                                                                                                                                                                                                                                               | NC          | 8             | NR               | T or D(aq)       |
| 308068-21-5 | marble chips -----<br>chips<br>(calcium carbonate)<br>$CaCO_3(s)$          | A                      | 1  | 0  | 0  | Dust may cause irritation to skin, eyes and respiratory system.                                                                                                                                                                                                                                                       | NC          | 8             | NR               | T                |
| 89-78-1     | menthol ----- solid<br>(hexahydrothymol)<br>$C_{10}H_{20}O(s)$             | A                      | 0  | 0  | 0  | May cause irritation of the eyes, skin, respiratory and digestive tracts.                                                                                                                                                                                                                                             | NC          | 8             | NR               | T or D(aq)       |
| 7439-97-6   | mercury ----- liquid<br>(quicksilver)<br><br>Hg(l)                         | C                      | 3  | 0  | 0  | Corrosive; causes burns to skin, eyes and respiratory tract; may be fatal if swallowed or inhaled, harmful if absorbed through skin; chronic exposure affects the central nervous system and kidneys. If stocked in schools, mercury should be stored in a sealed plastic bottle to prevent evaporation and breakage. | D2          | 8             | 8                | R or WF/I        |
| n/a         | mercury compounds                                                          | C                      | 3  | 0  | 0  | Toxic.                                                                                                                                                                                                                                                                                                                | D2          | 8             | 6.1              | WF/I             |
| 74-82-8     | methane ----- gas/liquid<br>(natural gas)<br><br>$CH_4(g)$ & $CH_4(l)$     | B                      | 1  | 4  | 0  | Excessive inhalation may cause difficulty breathing, nausea, dizziness, suffocation or coma; extremely flammable, will produce explosive mixture with air.                                                                                                                                                            | B           | 5             | 2.1              | WF/I or RS-cyl.  |
| 63-68-3     | methionine -----                                                           | A                      | 1  | 1  | 0  | Dust may cause irritation                                                                                                                                                                                                                                                                                             |             | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                   | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                   | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | crystals<br>( <i>acimethin</i> )<br><br>$C_5H_{11}NO_2S(s)$                                           |                        |    |    |    | to skin, eyes, digestive and respiratory tract; may cause reproductive and fetal effects; flammable if heated or exposed to flame.                                                                                                                        | NC          |               |                  |                  |
| 67-56-1    | methyl alcohol--liquid<br>(methanol, gas line antifreeze)<br>$CH_3OH(l)$                              | B                      | 2  | 3  | 0  | Causes eye, skin and respiratory tract irritation; harmful if swallowed, inhaled or absorbed through skin; highly flammable.                                                                                                                              | B, D1, D2   | 5             | 3<br>(6.1)       | WF/I             |
| 108-88-3   | methylbenzene -----<br>liquid<br>( <i>toluene, phenylethane</i> )<br><br>$C_7H_8(l)$                  | C                      | 2  | 3  | 0  | Irritant to skin, eyes, respiratory and digestive tract; harmful if inhaled or absorbed through skin; harmful or fatal if swallowed; may cause liver and kidney damage or affect the blood or central nervous system; highly flammable liquid and vapour. | B, D2       | 5             | 3                | WF/I             |
| 9004-67-5  | methylcellulose -----<br>solid<br>( <i>cellulose methyl ether</i> )<br>$C_7H_{14}O_5X(s)$             | A                      | 0  | 0  | 0  | No adverse effects.                                                                                                                                                                                                                                       | NC          | 8             | NR               | T                |
| 61-73-4    | methylene blue ----<br>crystals<br>( <i>basic Blue 9</i> )<br><br>$C_{16}H_{18}ClN_3S \cdot 3H_2O(s)$ | A                      | 2  | 1  | 0  | Dust may cause mechanical irritation of eyes; harmful if swallowed, no adverse effects if inhaled; combustible if heated or ignited, dust-air mixture                                                                                                     | NC          | 8             | NR               | T or D(aq)       |

| CAS Number | Chemical Name(s), State and Formula                                                                                                  | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                          | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                                                      |                        |    |    |    | explosive.                                                                                                                                                                                                                                                                                       |             |               |                  |                  |
| 61-73-4    | methylene blue----<br>solution<br><u>mixture</u> :<br>water ----- 99.-%<br>methylene blue -----<br><1.0%<br>$C_{16}H_{18}ClN_3S(aq)$ | A                      | 0  | 0  | 0  | May cause irritation to eyes; no other adverse effects.                                                                                                                                                                                                                                          | NC          | 8             | NR               | D                |
| 75-09-2    | methylene chloride --<br>liquid<br>( <i>dichloromethane</i> )<br><br>$CH_2Cl_2(l)$                                                   | C                      | 2  | 1  | 0  | Causes irritation and possible burns to skin, eyes and respiratory tract; may be absorbed through skin; may depress central nervous system function; combustible if heated or ignited, vapours may form explosive mixture with air; mutagen and possible human carcinogen.                       | D2          | 5, 8          | 6.1              | WF/I             |
| 78-93-3    | methyl ethyl ketone --<br>liquid<br>( <i>2-butanone</i> )<br><br>$C_4H_8O(l)$ or<br>$CH_3COCH_2CH_3(l)$                              | C                      | 2  | 3  | 0  | Causes mild irritation to skin, vapour causes moderate irritation to eyes, nose and respiratory tract; higher than 350 ppm exposure causes central nervous system depression; very high concentrations cause unconsciousness and possible death; flammable liquid, vapour-air mixture explosive. | B, D2       | 5             | 3                | WF/I             |
| 78-83-1    | 2-methyl-1-propanol -<br>liquid                                                                                                      | B                      | 2  | 3  | 0  | Causes irritation to skin, eyes and respiratory tract;                                                                                                                                                                                                                                           |             | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                   | Use in School Category | H* | F* | R* | Hazards                                                                                                                                      | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | ( <i>iso-butyl alcohol</i> )<br><br>C <sub>4</sub> H <sub>10</sub> O(l)                                                                                                               |                        |    |    |    | harmful if swallowed, inhaled or ingested; affects the central nervous system; flammable liquid and vapour.                                  | B, D2       |               |                  |                  |
| 547-58-0   | methyl orange ----- solid<br>( <i>C.I. acid orange 52</i> )<br>C <sub>14</sub> H <sub>14</sub> N <sub>3</sub> NaO <sub>3</sub> S(s)                                                   | B                      | 2  | 0  | 0  | May cause irritation of the skin, eyes and respiratory tract; harmful by skin absorption, inhalation or ingestion.                           | D1, D2      | 8             | 6.1              | WF/I             |
| 547-58-0   | methyl orange ---- solution<br><u>mixture</u> :<br>water ----- 99.9%<br>methyl orange ----- 0.1%<br>C <sub>14</sub> H <sub>14</sub> N <sub>3</sub> NaO <sub>3</sub> S(aq)             | A                      | 1  | 0  | 0  | May cause irritation of the skin, eyes and respiratory tract; excessive exposure may be harmful by skin absorption, inhalation or ingestion. | NC          | 8             | NR               | WF/I             |
| 493-52-7   | methyl red ----- solid<br>( <i>C.I. acid red</i> )<br>C <sub>15</sub> H <sub>15</sub> N <sub>3</sub> O <sub>2</sub> (s)                                                               | B                      | 1  | 1  | 0  | May cause skin, eye, digestive and respiratory tract irritation; chronic exposure may causes liver damage.                                   | NC          | 8             | NR               | WF/I             |
| n/a        | methyl red -----<br>solution<br><u>mixture</u> :<br>methyl alcohol -----<br>99.98%<br>methyl red -----<br>0.02%<br>C <sub>15</sub> H <sub>15</sub> N <sub>3</sub> O <sub>2</sub> (aq) | B                      | 2  | 3  | 0  | Causes eye, skin and respiratory tract irritation; harmful if swallowed, inhaled or absorbed through skin; highly flammable.                 | D2          | 5             | 3<br>(6.1)       | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                  | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                      | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 119-36-8   | methyl salicylate -----<br>liquid<br>(wintergreen oil,<br>betula oil)<br>$C_8H_8O_3(l)$                                              | A                      | 2  | 1  | 0  | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the kidneys and central nervous system.           | D2          | 8             | NR               | WF/I             |
| 8004-87-3  | methyl violet -----<br>solution<br><u>mixture</u> :<br>water ----- 99.98%<br>methyl violet -----<br>0.02%<br>$C_{24}H_{28}N_3Cl(aq)$ | A                      | 1  | 0  | 0  | May cause mild irritation to skin, eyes, digestive and respiratory tracts.                                                                                                   | NC          | 8             | 6.1              | WF/I             |
| 8004-87-3  | methyl violet -----<br>crystals<br>(C.I.basic violet 1)<br>$C_{24}H_{28}N_3Cl(s)$                                                    | A                      | 2  | 0  | 0  | Causes irritation to skin and eyes; harmful if swallowed or inhaled.                                                                                                         | NC          | 8             | 6.1              | WF/I             |
| 12001-26-2 | mica ----- sheets<br>(muscovite, micro, dry<br>ground, wet ground mica)<br><br>Formula unknown                                       | A                      | 1  | 0  | 0  | Dust may irritate eyes and respiratory tract; chronic lung damage results from extended inhalation; respirable particles of quartz are hazardous to inhale.                  | NC          | 8             | NR               | R or T           |
| n/a        | Million's reagent --<br>solution<br><u>mixture</u> :<br>mercury ----- 25%<br>nitric acid ----- 50%<br>water----- 25%                 | C                      | 3  | 0  | 0  | Toxic; causes burns to skin, eyes, respiratory and digestive tracts; extremely corrosive to mucous membranes; may cause reproductive effects; may cause teratogenic effects. | D1, E       | 1             | 6.1<br>(8)       | WF/I             |
| 10045-89-3 | Mohr's salt ----- crystals<br>(ammonium                                                                                              | B                      | 2  | 1  | 0  | May cause irritation of the skin, eyes, respiratory and                                                                                                                      | D1          | 8             | 9                | WF/I or<br>N/P-D |

| CAS Number | Chemical Name(s), State and Formula                                                                                  | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                            | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | <i>ferrous sulfate, Iron(II) ammonium sulfate (anhydrous)</i><br>$\text{Fe}(\text{NH}_4)_2(\text{SO}_4)_2(\text{s})$ |                        |    |    |    | intestinal tracts if taken internally; harmful by ingestion, inhalation or skin absorption; flammable if heated.                                                                                                   |             |               |                  |                  |
| 7439-98-7  | molybdenum metal ----- powder<br>$\text{Mo}(\text{s})$                                                               | A                      | 1  | 0  | 0  | May be irritating to skin, eyes, nose, throat and respiratory tract; dust-air mixture could be explosive with strong ignition.                                                                                     | NC          | 8             | NR               | WF/I             |
| 91-20-3    | naphthalene ----- crystals ( <i>moth balls, tar camphor</i> )<br>$\text{C}_{10}\text{H}_8(\text{s})$                 | C                      | 3  | 2  | 0  | Toxic; irritating to eyes, skin and respiratory system; harmful by inhalation, ingestion or skin contact; possible human carcinogen; flammable.                                                                    | B, D2       | 4             | 4.1              | WF/I             |
| n/a        | nichrome wire ----- solid <u>mixture (alloy)</u> :<br>nickel ----- 80 - 90%<br>chromium -- 10 - 20%                  | A                      | 1  | 0  | 0  | Solid metal forms of nickel and chromium have no adverse effects.                                                                                                                                                  | NC          | 8             | NR               | R                |
| 7440-02-0  | nickel ----- powder<br>$\text{Ni}(\text{s})$                                                                         | D                      | 1  | 1  | 1  | Powder may cause irritation to skin, eyes and respiratory tract; causes gastrointestinal irritation with nausea, vomiting and diarrhea if ingested; powder pyrophoric, can ignite spontaneously; human carcinogen. | D2          | 4             | 4.1              | WF/I             |
| 7440-02-0  | nickel ----- strip<br>$\text{Ni}(\text{s})$                                                                          | A                      | 0  | 0  | 0  | Stable, no adverse effects.                                                                                                                                                                                        | NC          | 8             | NR               | R                |
| n/a        | nickel salts -----                                                                                                   | D                      | —  | —  | —  | Human carcinogens with                                                                                                                                                                                             |             | —             | —                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                              | Use in School Category      | H* | F* | R*      | Hazards                                                                                                                                                                                                               | WHMIS Class  | Storage Class | TDG Hazard Class    | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------------------|-----------------------------|----|----|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|---------------------|------------------|
|            | crystals                                                                                                         |                             |    |    |         | long-term exposure.                                                                                                                                                                                                   | D2           |               |                     |                  |
| 485-47-2   | ninhydrin monohydrate ---<br>---- powder<br>$C_9H_6O_4(s)$                                                       | B                           | 2  | 1  | 0       | Irritating to skin, eyes and respiratory tract; harmful if swallowed; combustible if heated or ignited, powder-air mixture explosive.                                                                                 | D2           | 8             | NR                  | T                |
| 7697-37-2  | nitric acid ----- solution<br><u>mixture</u> :<br>$HNO_3$ ----- 62 - 75%<br>$H_2O$ ----- 25 - 38%<br>$HNO_3(aq)$ | B - dilute<br>C - conc.     | 3  | 0  | 0<br>OX | Corrosive; liquid and vapour causes severe damage to skin, eyes and mucous membranes; strong oxidant.                                                                                                                 | C, D1        | 1, 6          | 8<br>(5.1)          | WF/I or N/P-D    |
| 98-95-3    | nitrobenzene --- oily liquid<br>( <i>nitrobenzol</i> ,<br><i>oil of mirbane</i> )<br>$C_6H_5NO_2(l)$             | C                           | 3  | 2  | 1       | Toxic; may be fatal if swallowed, inhaled or absorbed through skin; causes irritation to skin and eyes; affects blood, liver, kidneys and reproductive system; possible cancer hazard; combustible liquid and vapour. | B, D1,<br>D2 | 5             | 6.1                 | WF/I             |
| 7727-37-9  | nitrogen ----- liquefied gas<br>$N_2(l)$ & $N_2(g)$                                                              | C                           | 3  | 0  | 0       | Skin and eye contact with liquid causes cryogenic burns; gas nontoxic but in confined spaces, will displace oxygenated air and cause asphyxiation.                                                                    | A            | 8             | 2.2                 | A                |
| 10102-44-0 | nitrogen dioxide ----- liquefied gas<br>$NO_2(l)$ & $NO_2(g)$                                                    | D<br>(commercial cylinders) | 4  | 0  | 0<br>OX | Very toxic and corrosive, short-term exposure causes irritation and possible burns to skin, eyes and respiratory tract;                                                                                               | D1, C        | 6             | 2.3<br>(5.1)<br>(8) | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods  |
|------------|------------------------------------------------------------------------------------|------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|-------------------|
|            |                                                                                    |                        |    |    |    | potentially fatal if inhaled; strong oxidizer, contact with combustible material may cause fire.                                                                                       |             |               |                  |                   |
| 103-09-3   | octyl acetate ----- liquid<br>(2-ethylhexyl acetate)<br>$C_{10}H_{20}O_2(l)$       | A                      | 1  | 2  | 0  | Causes skin and eye irritation, may cause respiratory and digestive tract irritation; combustible liquid.                                                                              | B           | 5             | NR               | WF/I or RS – cyl. |
| 111-87-5   | octyl alcohol ----- liquid<br>(n-octanol, caprylic alcohol)<br>$C_8H_{18}O(l)$     | B                      | 2  | 2  | 0  | Causes irritation to skin, eye and respiratory tract, may be harmful if swallowed or inhaled; affects the CNS; combustible liquid and vapour.                                          | B, D1       | 5             | NR               | WF/I              |
| 112-80-1   | oleic acid ----- oily liquid<br>(z-9-octadecenoic acid)<br>$C_{18}H_{34}O_2(l)$    | A                      | 1  | 1  | 0  | Causes irritation to skin, eyes, digestive tract and respiratory tract, if mist is inhaled; combustible if pre-heated and ignited.                                                     | NC          | 3             | NR               | WF/I or N/P-D     |
| 554-73-4   | orangeIV ----- powder<br>(tropaeolin OO, C.I. 13080)<br>$C_{18}H_{14}N_3NaO_3S(s)$ | B                      | 2  | 1  | 0  | May cause irritation to skin, eyes and respiratory tract; may be harmful by skin absorption, inhalation or ingestion; combustible if heated or ignited, powder- air mixture explosive. | D2          | 8             | NR               | T                 |

| CAS Number | Chemical Name(s), State and Formula                                                                                          | Use in School Category    | H* | F* | R*      | Hazards                                                                                                                                                                                                 | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 554-73-4   | orangeIV ----- solution<br><u>mixture</u> :<br>water -----<br>99.9%<br>orangeIV -----<br>0.1%<br>$C_{18}H_{14}N_3NaO_3S(aq)$ | A                         | 1  | 0  | 0       | May cause irritation to skin, eyes and respiratory tract; may be harmful by skin absorption or ingestion with excessive exposure or intake.                                                             | NC          | 8             | NR               | D                |
| 1400-62-0  | orcein ----- powder<br>$C_{28}H_{24}N_2O_7(s)$                                                                               | A                         | 1  | 0  | 0       | May cause irritation to skin, eyes, respiratory and digestive tracts.                                                                                                                                   | NC          | 8             | NR               | T                |
| 144-62-7   | oxalic acid ----- crystals<br>( <i>ethanedioic acid</i> )<br>$C_2H_2O_4(s)$                                                  | B - soln.<br>C - crystals | 3  | 1  | 0       | Corrosive; causes severe irritation to skin, eyes and respiratory tract; harmful if inhaled or absorbed through skin; may be fatal if ingested; may cause kidney damage; combustible solid below 101°C. | D1, E       | 3             | 8                | WF/I or N/P-D    |
| 7782-44-7  | oxygen ----- gas<br>$O_2(g)$                                                                                                 | A                         | 0  | 0  | 0<br>OX | No adverse effects; supports combustion, accelerates burning.                                                                                                                                           | A, C        | 6             | 2.2 (5.1)        | A                |
| 57-10-3    | palmitic acid -----<br>crystals<br>( <i>hexadecanoic acid</i> )<br>$C_{16}H_{32}O_2(s)$                                      | A                         | 1  | 1  | 0       | Causes irritation to skin, eyes, respiratory and digestive tracts; combustible if heated or ignited, dust-air mixture explosive.                                                                        | NC          | 3             | NR               | WF/I or N/P-D    |
| 8049-47-6  | pancreatin -----<br>powder<br>( <i>diastase vera</i> )<br>(variable composition)                                             | B                         | 1  | 1  | 0       | Causes irritation to skin, eyes, respiratory tracts; combustible if heated or ignited.                                                                                                                  | NC          | 8             | NR               | T                |
| 106-46-7   | paradichlorobenzene -----<br>----- crystals                                                                                  | C                         | 2  | 2  | 0       | Causes irritation to skin, eyes and respiratory tract;                                                                                                                                                  |             | 4             | 9                | WF/I             |

| CAS Number               | Chemical Name(s), State and Formula                                                     | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|--------------------------|-----------------------------------------------------------------------------------------|------------------------|----|----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|                          | ( <i>l</i> ,4-dichlorobenzene)<br><br>C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> (s) |                        |    |    |    | harmful if inhaled, swallowed or absorbed through the skin; affects the respiratory system, liver, kidneys and blood; flammable, forms explosive vapour-air mixture; possible human carcinogen. | D1, D2      |               |                  |                  |
| 308069-08-1 or 8002-74-2 | paraffin ----- solid<br><br>C <sub>n</sub> H <sub>2n+2</sub> (s)                        | A                      | 1  | 1  | 0  | May cause mild irritation to eyes and digestive tract; dust or fumes may irritate the respiratory tract; flammable.                                                                             | NC          | 8             | NR               | T                |
| 30525-89-4               | paraformaldehyde<br><br>(CH <sub>2</sub> O) <sub>n</sub> (s)                            | D                      | 3  | 1  | 1  | Corrosive; causes severe irritation to skin, eyes, respiratory and digestive tracts and possible burns; releases formaldehyde when dissolved in water; flammable solid.                         | B, D1, D2   | 8             | 4.1              | WF/I or N/P-D    |
| 109-66-0                 | pentane (n) -----<br>gas<br><br>C <sub>5</sub> H <sub>12</sub> (g)                      | C                      | 2  | 4  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if inhaled or ingested; highly flammable liquid.                                                                                 | B, D1       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                           | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 71-41-0    | pentyl alcohol ----- liquid<br>( <i>amyl alcohol</i> ,<br><i>1- pentanol</i> )<br><br>$C_5H_{11}OH(l)$                        | B                      | 2  | 3  | 0       | Liquid irritates the skin and causes severe irritation or eyes with possible burns; vapours cause severe irritation of the respiratory tract; harmful if inhaled, swallowed or absorbed through skin; affects the nervous system; flammable liquid and vapour. | B, D2       | 5             | 3                | WF/I             |
| 123-51-3   | pentyl ( <i>iso</i> ) alcohol -- liquid<br>( <i>iso-amyl alcohol</i> )<br><br>$C_5H_{12}O(l)$ or<br>$(CH_3)_2CHCH_2CH_2OH(l)$ | B                      | 2  | 2  | 0       | Causes irritation to skin, mucous membranes and respiratory tract; severe irritant to eyes; harmful if swallowed, inhaled or ingested; hematotoxic; affects the central nervous system; flammable liquid and vapour; emits toxic fumes when burned.            | B, D2       | 5             | 3                | WF/I             |
| 9001-75-6  | pepsin ----- powder<br>(variable composition)                                                                                 | B                      | 1  | 1  | 0       | May causes irritation to skin and eyes; combustible if heated or ignited.                                                                                                                                                                                      | NC          | 8             | NR               | T                |
| 7601-90-3  | perchloric acid --- solution<br><br><u>mixture</u> : $HClO_4$ ---- 70%<br>$H_2O$ ----- 30%<br><br>$HClO_4(aq)$                | D                      | 3  | 0  | 3<br>OX | Corrosive; causes severe burns at site of contact; very harmful through skin contact, inhalation and ingestion; unstable, will decompose explosively at higher temperatures or if allowed to dehydrate;                                                        | C, E        | 1, 6          | 5.1<br>(8)       | WF/I or<br>N/P-D |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                         | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                                                                                                                             |                        |    |    |    | contact with wood, paper and other cellulose products may lead to explosion; strong oxidizer.                                                                                                                                                          |             |               |                  |                  |
| 8032-32-4  | petroleum ether -----<br>liquid<br><u>mixture</u> :<br>n-pentane ----- 85+%<br>methylpentane -- small %<br>cyclopentane ---- small %<br>dimethylbutane - small %<br>other<br>hydrocarbons -----<br>variable | C                      | 2  | 4  | 0  | Irritating to skin, eyes and respiratory system; harmful by inhalation, ingestion or skin contact; extremely flammable liquid.                                                                                                                         | B, D1       | 5             | 3                | WF/I             |
| 108-95-2   | phenol ----- solid<br>( <i>carbolic acid</i> ,<br><i>phenic acid</i> )<br><br>C <sub>6</sub> H <sub>6</sub> O(s)                                                                                            | D                      | 4  | 2  | 0  | Corrosive and toxic; causes severe burns to any area of contact; may be fatal if swallowed, inhaled or absorbed through skin; absorbed rapidly through skin; affects CNS, liver and kidneys; causes adverse reproductive and fetal effects; flammable. | B, D1, D2   | 3, 4, 5       | 6.1              | WF/I             |
| 77-09-8    | phenolphthalein --<br>needles<br><br>C <sub>20</sub> H <sub>14</sub> O <sub>4</sub> (s)                                                                                                                     | B                      | 1  | 1  | 0  | May cause skin, eye, digestive and respiratory tract irritation; prolonged exposure may have adverse reproductive effects; may be carcinogenic; combustible at higher temperatures or if ignited.                                                      | NC          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                       | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                 | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a        | phenolphthalein -- solution<br><u>mixture</u> :<br>phenolphthalein 0.5 -1.0%<br>ethyl alcohol ----- 50 - 95%<br>methyl alcohol -----1 - 2 %<br>isopropyl alcohol - 1 - 2% | B                      | 2  | 3  | 0  | May cause skin, eye, digestive and respiratory tract irritation; prolonged exposure may have adverse reproductive effects; may be carcinogenic; combustible at higher temperatures or if ignited.                                       | B           | 5             | 3                | WF/I             |
| n/a        | phenol red -----<br>solution <u>mixture</u> :<br>water ----- 73 - 75%<br>ethanol ----- 24 - 26%<br>phenol red ----- < 1.0%                                                | B                      | 1  | 2  | 0  | May cause irritation to skin, eyes, digestive and respiratory tracts; flammable vapour; excessive intake may depress the central nervous system.                                                                                        | NC          | 5             | NR               | D                |
| 63-91-2    | l-phenylalanine -- crystals<br>$C_9H_{11}NO_2(s)$                                                                                                                         | A                      | 1  | 0  | 0  | Skin, eye and respiratory tract irritant.                                                                                                                                                                                               | NC          | 8             | NR               | T                |
| 100-63-0   | phenylhydrazine ---- liquid<br>(hydrozinobenezene)<br><br>$C_6H_8N_2(l)$                                                                                                  | C                      | 3  | 2  | 0  | Corrosive; causes irritation of respiratory tract and burns to any area of contact; harmful if swallowed, inhaled or absorbed through skin; affects blood, liver, kidneys and respiratory system; combustible solid, liquid and vapour. | B, D2       | 5             | 6.1              | WF/I             |
| 118-55-8   | phenyl salicylate -- crystals<br>(2-hydroxybenzoic acid, phenyl ester)<br>$C_{13}H_{10}O_3(s)$ or<br>$C_6H_4(OH)CO_2C_6H_5(s)$                                            | B                      | 2  | 0  | 0  | May cause skin, eye, digestive and respiratory tract irritation; overexposure may cause reproductive disorders.                                                                                                                         | D2          | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                       | Use in School Category | H* | F* | R*                | Hazards                                                                                                                                                                                                                                                                                             | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods     |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|----------------------|
| 103-85-5   | phenylthiocarbamide (paper)<br>(phenylthiourea, PTC paper)<br><br>C <sub>7</sub> H <sub>8</sub> N <sub>2</sub> S(s)                                                       | B                      | 3  | 1  | 0                 | Toxic; exposure to larger amounts very toxic by inhalation, skin contact, or if swallowed; minute amounts in PTC paper not a serious danger; paper flammable.                                                                                                                                       | D1          | 8             | 6.1              | T                    |
| 7664-38-2  | phosphoric acid -- solution<br><u>mixture</u> :<br>H <sub>3</sub> PO <sub>4</sub> ----- 74 - 95%<br>H <sub>2</sub> O ----- 5 - 26%<br>H <sub>2</sub> PO <sub>4</sub> (aq) | B                      | 3  | 0  | 0                 | Corrosive; causes severe irritation and burns to any area of contact; harmful if swallowed or fumes inhaled.                                                                                                                                                                                        | E           | 1             | 8                | WF/I<br>or<br>N/P -D |
| 7723-14-0  | phosphorus,<br>amorphous red ----<br>powder<br>P(s)                                                                                                                       | C                      | 2  | 1  | 1                 | Causes eye irritation; may be harmful if swallowed or fumes inhaled; flammable solid, may ignite from friction.                                                                                                                                                                                     | B           | 8             | 4.1              | WF/I                 |
| 12185-10-3 | phosphorus(yellow) -----<br>---- waxy solid<br>(white phosphorus)<br><br>P <sub>4</sub> (s)                                                                               | D                      | 3  | 4  | 2                 | Corrosive; causes severe skin and eye burns; harmful if absorbed through skin; acute inhalation causes serious damage to lungs and respiratory tract; may be fatal if swallowed; extremely flammable, ignites spontaneously on exposure to air; fumes from burning phosphorus extremely irritating. | B, D1       | 4             | 4.2              | WF/I                 |
| 1314-56-3  | phosphorus<br>pentoxide -----<br>powder                                                                                                                                   | C                      | 3  | 0  | 3<br><del>W</del> | Corrosive; fumes cause irritation to eyes and respiratory tract; causes                                                                                                                                                                                                                             | D1, E       | 8             | 8                | WF/I                 |

| CAS Number | Chemical Name(s), State and Formula                                            | Use in School Category | H* | F* | R*                      | Hazards                                                                                                                                                                                                                                                                                                                       | WHMIS Class  | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------|------------------------|----|----|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|------------------|------------------|
|            | (phosphoric anhydride)<br><br>$P_2O_5(s)$                                      |                        |    |    |                         | burns to any area of contact; harmful if swallowed or inhaled; reacts violently with water to form phosphoric acid.                                                                                                                                                                                                           |              |               |                  |                  |
| 7719-12-2  | phosphorus trichloride ---- fuming liquid<br><br>$PCl_3(l)$                    | C                      | 3  | 0  | 2<br><del>W</del><br>OX | Corrosive; causes severe burns to any area of contact; may be fatal if swallowed or inhaled; reacts with water; strong oxidizer, contact with other material may cause fire.                                                                                                                                                  | C, D1        | 8             | 5.1<br>(8)       | WF/I             |
| 88-99-3    | phthalic acid ----- powder<br>(1,2-benzenedicarboxylic acid)<br>$C_8H_6O_4(s)$ | B                      | 1  | 1  | 1                       | Causes irritation of skin, eyes, respiratory and digestive tracts; decomposes if heated, powder-air mixture explosive.                                                                                                                                                                                                        | NC           | 3             | NR               | WF/I or N/P-D    |
| 88-89-1    | picric acid ----- crystals<br>(2,4,6-trinitrophenol)<br><br>$C_6H_3N_3O_7(s)$  | D                      | 3  | 4  | 4                       | Toxic; causes skin and respiratory tract irritation, and severe eye irritation; harmful if swallowed, inhaled or absorbed through the skin; affects the liver, kidneys and blood; stable in water but explosive if allowed to dry, becomes increasingly shock, heat and friction sensitive as moisture lost; flammable solid. | B, D1, D2, F | 3, 4          | 4.1              | WF/I or N/P-D    |

| CAS Number | Chemical Name(s), State and Formula                                                                           | Use in School Category | H* | F* | R*                | Hazards                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------|------------------------|----|----|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7440-06-4  | platinum (metal) -----<br>solid<br><br>Pt(s)                                                                  | A                      | 1  | 1  | 0                 | May cause irritation of skin, eye, respiratory and digestive tracts; flammable solid.                                                                                           | NC          | 8             | NR               | R                |
| 9002-88-4  | polyethylene -----<br>solid<br><br>[C <sub>2</sub> H <sub>4</sub> ] <sub>n</sub> (s)                          | A                      | 1  | 1  | 0                 | Dust a respiratory tract and a mechanical eye irritant; combustible if heated or ignited.                                                                                       | NC          | 8             | NR               | R                |
| 9003-07-0  | polypropylene -----<br>solid<br>[C <sub>3</sub> H <sub>6</sub> ] <sub>n</sub> (s)                             | A                      | 1  | 1  | 0                 | Dust may be an eye and respiratory tract irritant; combustible at high temperatures.                                                                                            | NC          | 8             | NR               | R                |
| 9003-53-6  | polystyrene -----<br>solid<br>(dylene)<br>[C <sub>8</sub> H <sub>8</sub> ] <sub>n</sub> (s)                   | A                      | 1  | 1  | 0                 | Dust an upper respiratory irritant and a mechanical eye irritant; combustible if heated or ignited.                                                                             | NC          | 8             | NR               | R                |
| 9003-20-7  | polyvinyl acetate -----<br>solid<br>(PVA)<br>(C <sub>4</sub> H <sub>6</sub> O <sub>2</sub> ) <sub>n</sub> (s) | A                      | 0  | 0  | 0                 | No adverse effects.                                                                                                                                                             | NC          | 8             | NR               | R, T             |
| 9002-89-5  | polyvinyl alcohol -<br>granules<br><br>[CH <sub>2</sub> CHOH] <sub>n</sub> (s)                                | B                      | 0  | 2  | 0                 | Nuisance dust, mechanical irritation of eyes; flammable if ignited or heated, may form combustible dust concentrations in air.                                                  | NC          | 8             | NR               | R or T           |
| 7440-09-7  | potassium (metal) ----<br>solid<br><br>K(s)                                                                   | C                      | 3  | 3  | 2<br><del>W</del> | Corrosive; causes burns to all areas in contact; harmful or fatal if swallowed; harmful if absorbed through skin; water reactive; flammable solid, ignites when exposed to air. | B, D1, E    | 4             | 4.3              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                      | Use in School Category  | H* | F* | R*      | Hazards                                                                                                                                                                                                                                 | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------|-------------------------|----|----|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 127-08-2   | potassium acetate-powder<br>$\text{KCH}_3\text{COO}(\text{s})$           | A                       | 1  | 0  | 0       | May cause mild irritation to the skin, eyes and respiratory tract.                                                                                                                                                                      | NC          | 8             | NR               | T or D(aq)       |
| 7758-01-2  | potassium bromate -----<br>powder<br><br>$\text{KBrO}_3(\text{s})$       | B - soln.<br>C - powder | 3  | 0  | 1<br>ox | Toxic; causes irritation to skin, eyes and respiratory tract; harmful if dust inhaled or absorbed through skin, may be fatal if swallowed; may cause kidney damage; strong oxidizer, may ignite combustible material.                   | C, D1, D2   | 6             | 5.1              | WF/I             |
| 7758-02-3  | potassium bromide -----<br>crystals<br>$\text{KBr}(\text{s})$            | B                       | 2  | 0  | 0       | May cause irritation of the skin, eyes and respiratory tract; harmful if swallowed or inhaled; affects the central nervous system and eyes.                                                                                             | D2          | 8             | NR               | T                |
| 584-08-7   | potassium carbonate -----<br>powder<br>$\text{K}_2\text{CO}_3(\text{s})$ | A                       | 2  | 0  | 0       | Causes severe irritation to skin, eyes and respiratory tracts; harmful if swallowed or inhaled.                                                                                                                                         | D2          | 8             | NR               | T                |
| 3811-04-9  | potassium chlorate -----<br>powder<br><br>$\text{KClO}_3(\text{s})$      | B - soln.<br>C - powder | 2  | 0  | 3<br>ox | Causes irritation to skin, eyes and respiratory tracts; harmful if swallowed, may cause methemoglobinemia, liver or kidney damage; strong oxidizer, contact with other material may cause fire; decomposes when heated releasing oxygen | C, D2       | 6             | 5.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                           | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                          | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------|------------------------|----|----|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                               |                        |    |    |         | gas, may explode.                                                                                                                                                                                                                                                                |             |               |                  |                  |
| 7447-40-7  | potassium chloride -----<br>crystals<br>KCl(s)                                                | A                      | 1  | 0  | 0       | May cause severe irritation to skin, eyes and respiratory tract.                                                                                                                                                                                                                 | NC          | 8             | NR               | T                |
| 7789-00-6  | potassium chromate -----<br>crystals<br><br>K <sub>2</sub> CrO <sub>4</sub> (s)               | D                      | 3  | 0  | 1<br>OX | Corrosive; causes severe burns to area of contact; harmful if swallowed or inhaled; affects the respiratory system, liver, kidneys, eyes, skin and blood; strong oxidizer, contact with other material may cause fire; releases oxygen gas upon decomposition; human carcinogen. | C, D1, D2   | 6             | 5.1<br>(8)       | WF/I or N/P-D    |
| 7778-50-9  | potassium dichromate -----<br>powder<br><br>K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> (s) | D                      | 3  | 0  | 1<br>OX | Corrosive; causes severe burns to area of contact; harmful if swallowed or inhaled; affects the respiratory system, liver, kidneys, eyes, skin and blood; strong oxidizer, contact with other material may cause fire; releases oxygen gas upon decomposition; human carcinogen. | C, D1, D2   | 6             | 5.1<br>(8)       | WF/I or N/P-D    |

| CAS Number | Chemical Name(s), State and Formula                                                                                               | Use in School Category | H* | F* | R* | Hazards                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7778-77-0  | potassium dihydrogen phosphate, ----- crystals<br>( <i>potassium phosphate, monobasic</i> )<br>$\text{KH}_2\text{PO}_4(\text{s})$ | A                      | 1  | 0  | 0  | May cause irritation to eyes, skin, respiratory and digestive tracts.                                                                          | NC          | 8             | NR               | WF/I             |
| 13943-58-3 | potassium ferrocyanide ----- powder<br>$\text{K}_3\text{Fe}(\text{CN})_6(\text{s})$                                               | B                      | 2  | 0  | 1  | May cause irritation to skin, eye and respiratory tract; may be harmful if swallowed or inhaled; decomposes if heated releasing cyanide gases. | NC          | 8             | NR               | WF/I             |
| 298-14-6   | potassium hydrogen carbonate ----- crystals<br>( <i>potassium bicarbonate</i> )<br>$\text{KHCO}_3(\text{s})$                      | A                      | 1  | 0  | 0  | May be a mild irritant to skin, eyes, digestive and respiratory tracts.                                                                        | NC          | 8             | NR               | T or D(aq)       |
| 127-95-7   | potassium hydrogen oxalate- powder or crystals<br>( <i>potassium binoxalate</i> )<br>$\text{KHC}_2\text{O}_4(\text{s})$           | A                      | 1  | 0  | 0  | Causes irritation of the skin, eyes, respiratory and digestive tracts; harmful if swallowed.                                                   | D1, D2      | 8             | NR               | T or D(aq)       |
| 7758-11-4  | potassium hydrogen phosphate ----- powder<br>( <i>potassium phosphate, dibasic</i> )<br>$\text{K}_2\text{HPO}_4(\text{s})$        | A                      | 1  | 0  | 0  | May be harmful if swallowed.                                                                                                                   | NC          | 8             | NR               | WF/I             |
| 877-24-7   | potassium hydrogen phthalate ----- powder<br>$\text{KH}_5\text{C}_8\text{O}_4(\text{s})$                                          | B                      | 1  | 1  | 0  | May cause irritation to skin, eyes and respiratory tract; combustible if heated or ignited, air-dust mixture explosive.                        | NC          | 8             | NR               | T or D(aq)       |
| 7646-93-7  | potassium hydrogen                                                                                                                | B - soln.              | 3  | 0  | 0  | Corrosive; causes burns                                                                                                                        | E           | 8             | 8                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                           | Use in School Category  | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----|----|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | sulfate -----<br>powder<br>( <i>potassium bisulfate</i> )<br>$\text{KHSO}_4(\text{s})$                                                                        | C - powder              |    |    |         | to any area of contact;<br>may be harmful if<br>swallowed.                                                                                                                                                                                                                                                                     |             |               |                  |                  |
| 868-14-4   | potassium hydrogen<br>tartrate -----<br>powder<br>( <i>potassium bitartrate</i> ,<br><i>cream of tartar</i> )<br>$\text{KHC}_4\text{H}_4\text{O}_6(\text{s})$ | A                       | 0  | 0  | 0       | No adverse effects.                                                                                                                                                                                                                                                                                                            | NC          | 8             | NR               | T or<br>D(aq)    |
| 1310-58-3  | potassium<br>hydroxide-----pellets<br>( <i>caustic potash</i> )<br><br>$\text{KOH}(\text{s})$                                                                 | B                       | 3  | 0  | 1       | Corrosive; causes severe<br>burns to any area of<br>contact; harmful by<br>ingestion, inhalation or<br>skin contact; unstable,<br>absorbs carbon dioxide<br>and moisture from air.                                                                                                                                             | D1, E       | 2             | 8                | WF/I or<br>N/P-D |
| 7758-05-6  | potassium iodate --<br>powder<br><br><br><br><br><br><br><br>$\text{KIO}_3(\text{s})$                                                                         | B - soln.<br>C - powder | 2  | 0  | 3<br>ox | May cause severe<br>irritation to skin, eyes and<br>respiratory tract with<br>possible burns; may<br>cause kidney damage<br>and central nervous<br>system effects; strong<br>oxidizer, enhances<br>combustion of other<br>substances; can be<br>explosive if exposed to<br>heat or flames,<br>mechanical shock or<br>friction. | C, D2       | 6             | 5.1              | WF/I or<br>N/P-D |
| 7681-11-0  | potassium iodide --<br>crystals                                                                                                                               | A                       | 1  | 0  | 1       | May cause irritation to<br>skin, eyes, respiratory                                                                                                                                                                                                                                                                             | D2          | 8             | NR               | T or<br>D(aq)    |

| CAS Number | Chemical Name(s), State and Formula                                                                | Use in School Category    | H* | F* | R*      | Hazards                                                                                                                                                                                                                                               | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------|---------------------------|----|----|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | KI(s)                                                                                              |                           |    |    |         | and digestive tracts; may cause fetal effects; light and moisture sensitive.                                                                                                                                                                          |             |               |                  |                  |
| 7757-79-1  | potassium nitrate - crystals<br><br>KNO <sub>3</sub> (s)                                           | B                         | 2  | 0  | 0<br>OX | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; strong oxidant, may cause fire in contact with combustible material.                                                               | C, D2       | 6             | 5.1              | WF/I             |
| 7758-09-0  | potassium nitrite - granules<br><br>KNO <sub>2</sub> (s)                                           | B                         | 2  | 0  | 0<br>OX | Causes severe irritation of the skin, eyes and respiratory tract; harmful or fatal if swallowed, harmful if inhaled or absorbed through skin; strong oxidant, may cause fire in contact with combustible material; will decompose under extreme heat. | C, D2       | 6             | 5.1              | WF/I             |
| 583-52-8   | potassium oxalate- crystals<br><br>K <sub>2</sub> C <sub>2</sub> H <sub>2</sub> O <sub>4</sub> (s) | B - soln.<br>C - crystals | 3  | 0  | 0       | Corrosive; causes severe burns to every area of contact; may be fatal if swallowed, harmful if inhaled.                                                                                                                                               | D1, D2      | 8             | 6.1              | T or D(aq)       |
| 7722-64-7  | potassium permanganate ---- crystals ( <i>condy's crystals</i> )<br><br>KMnO <sub>4</sub> (s)      | B                         | 3  | 0  | 1<br>OX | Corrosive; dust causes severe irritation and burns to skin, eyes and mucous membranes of the digestive and respiratory tracts; chronic exposure may impair the central nervous system;                                                                | C, E        | 6             | 5.1              | WF/I or N/P-D    |

| CAS Number | Chemical Name(s), State and Formula                                                                       | Use in School Category | H* | F* | R* | Hazards                                                                                                                 | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                           |                        |    |    |    | strong oxidizing agent, may ignite combustible materials; may decompose if heated above 150°C causing explosion.        |             |               |                  |                  |
| 7778-77-0  | potassium phosphate, monobasic ----- powder<br>$\text{KH}_2\text{PO}_4(\text{s})$                         | A                      | 1  | 0  | 0  | May cause irritation to eyes, skin and respiratory tract; may be harmful if swallowed or inhaled.                       | NC          | 8             | NR               | WF/I             |
| 7758-11-4  | potassium phosphate, dibasic ----- powder<br>$\text{K}_2\text{HPO}_4(\text{s})$                           | A                      | 1  | 0  | 0  | No adverse effects to eyes, skin or respiratory tract; may be harmful if swallowed.                                     | NC          | 8             | NR               | WF/I             |
| 7778-53-2  | potassium phosphate, tribasic, anhydrous ----- powder<br>$\text{K}_3\text{PO}_4(\text{s})$                | B                      | 2  | 0  | 0  | Causes irritation and possible burns to eyes, skin, respiratory and digestive tract; harmful if swallowed or inhaled.   | E           | 8             | 8 (6.1)          | WF/I             |
| 304-59-6   | potassium sodium tartrate ----- powder<br>( <i>Rochelle salt</i> )<br>$\text{KNaC}_4\text{H}_6\text{O}_6$ | A                      | 1  | 1  | 0  | May cause irritation to eyes, skin and respiratory tract; combustible if heated or ignited, dust-air mixture explosive. | NC          | 8             | NR               | T or D(aq)       |
| 7778-80-5  | potassium sulphate - powder<br>$\text{K}_2\text{SO}_4(\text{s})$                                          | A                      | 1  | 0  | 0  | May produce mechanical irritation to eyes and irritation to skin, respiratory and digestive tracts.                     | D2          | 8             | NR               | T or D(aq)       |
| 1312-73-8  | potassium sulfide - powder<br>$\text{K}_2\text{S}(\text{s})$                                              | C                      | 3  | 1  | 2  | Toxic; very destructive to mucous membranes; causes burns by inhalation, ingestion or                                   | D1, D2      | 8             | 4.2 (6.1)        | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                  | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                    |                        |    |    |    | through skin contact; flammable, anhydrous form may be spontaneously combustible; reacts with acids to release toxic H <sub>2</sub> S.                                                   |             |               |                  |                  |
| 10117-38-1 | potassium sulfite -- crystals<br>K <sub>2</sub> SO <sub>3</sub> (s)                                | B                      | 2  | 0  | 0  | Irritating to skin, eyes and respiratory system; may be harmful if swallowed, inhaled or absorbed through skin.                                                                          | D2          | 8             | NR               | T or D(aq)       |
| 333-20-0   | potassium thiocyanate ----- crystals<br>KSCN(s)                                                    | B                      | 2  | 0  | 0  | Causes irritation to eyes, skin and respiratory tract; harmful if swallowed or inhaled.                                                                                                  | D2          | 8             | NR               | WF/I             |
| 147-85-3   | L- proline ----- powder<br>C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub> (s)                       | A                      | 1  | 0  | 0  | May cause irritation to skin, eyes, respiratory and digestive tracts.                                                                                                                    | NC          | 8             | NR               | T or D(aq)       |
| 74-98-6    | propane ----- liquid/gas<br>C <sub>3</sub> H <sub>8</sub> (l) or C <sub>3</sub> H <sub>8</sub> (g) | B                      | 1  | 4  | 0  | May be harmful if inhaled, asphyxiant at high concentrations; highly flammable, vapours heavier than air and collect in low areas or along the floor; liquid gas can cause freeze burns. | A & B       | 5             | 2.1              | RS<br>WF/I       |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                 | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                     | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 71-23-8    | n-propanol -----<br>liquid<br>( <i>n-propyl alcohol</i> ,<br><i>rubbing alcohol</i> )<br><br>C <sub>3</sub> H <sub>8</sub> O(l) or<br>CH <sub>3</sub> (CH <sub>2</sub> ) <sub>2</sub> OH(l)         | B - small volume       | 2  | 3  | 0  | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin, may affect the central nervous system; flammable liquid and vapour.                                      | B, D2       | 5             | 3                | D or WF/I        |
| 79-09-4    | propionic acid --- oily<br>liquid<br>( <i>propanoic acid</i> ,<br><i>methyl acetic acid</i> )<br><br>C <sub>3</sub> H <sub>6</sub> O <sub>2</sub> (l) or<br>CH <sub>3</sub> CH <sub>2</sub> COOH(l) | B - soln.<br>C - conc. | 3  | 2  | 0  | Corrosive; causes severe irritation and burns to skin, eyes, respiratory and digestive tracts; extremely destructive to mucous membranes, harmful if absorbed through skin, inhaled or ingested; flammable liquid; mutagen. | B, D1       | 3, 5          | 8                | WF/I or N/P-D    |
| 67-63-0    | sec-propyl alcohol ---<br>liquid<br>( <i>iso-propyl alcohol</i> )<br><br>C <sub>3</sub> H <sub>8</sub> O(l) or<br>(CH <sub>3</sub> ) <sub>2</sub> CHOH(l)                                           | B                      | 2  | 3  | 0  | Causes irritation to eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the central nervous system; flammable liquid and vapour.                                                   | B           | 5             | 3                | WF/I             |
| 57-55-6    | propylene glycol -oily<br>liquid<br>( <i>1,2 propanediol</i> )<br>C <sub>3</sub> H <sub>8</sub> O <sub>2</sub> (l) or<br>CH <sub>3</sub> CHOHCH <sub>2</sub> OH(l)                                  | A                      | 0  | 1  | 0  | May cause irritation to skin and eyes; combustible if heated or ignited.                                                                                                                                                    | NC          | 8             | NR               | WF/I             |
| 74-90-8    | prussic acid ----- liquid                                                                                                                                                                           | D                      | 4  | 4  | 2  | Highly toxic; vapour                                                                                                                                                                                                        |             | 1, 5          | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                     | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                                                                     | WHMIS Class  | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|------------------|------------------|
|            | (hydrogen cyanide, anhydrous, hydrocyanic acid)<br>HCN(l)                                                               |                        |    |    |    | irritates skin, eyes and mucous membranes; short-term exposure leads to death by rapid absorption through skin or by inhalation; also toxic by ingestion; flammable fumes.                                                                                                                                                                  | B, D1, D2, E |               |                  |                  |
| 103-85-5   | P.T.C.- embedded in paper<br>(phenylthiocarbamide, phenylthiourea)<br>C <sub>7</sub> H <sub>8</sub> N <sub>2</sub> S(s) | B                      | 3  | 1  | 0  | Toxic; exposure to larger amounts very toxic by inhalation, skin contact, or if swallowed; minute amounts in PTC paper not a serious danger; paper flammable.                                                                                                                                                                               | D1           | 8             | 6.1              | T                |
| 110-86-1   | pyridine -----<br>liquid<br>(azabenzene)<br><br>C <sub>5</sub> H <sub>5</sub> N(l)                                      | C                      | 3  | 3  | 0  | Corrosive; causes severe irritation and burns to skin, eyes, respiratory and digestive tracts; harmful if absorbed through skin, inhaled or ingested, may be fatal; long-term exposure may cause liver, kidney or central nervous system damage; reacts violently with some acids and oxidizing agents; flammable liquid, flash point 19°C. | B, D2, E     | 5             | 3                | WF/I or N/P-D    |
| 1309-36-0  | pyrite -----<br>chunks<br>(iron disulfide)                                                                              | A                      | 2  | 1  | 0  | Dust irritating to skin, eyes and respiratory tract; ingestion leads to release hydrogen sulfide by a reaction with                                                                                                                                                                                                                         | NC           | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                           | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | FeS <sub>2</sub> (s)                                                                                                                          |                        |    |    |    | stomach acid; prolonged inhalation may lead to pulmonary fibrosis, damage to kidneys and liver, fine powder flammable.                                                                                                 |             |               |                  |                  |
| 87-66-1    | pyrogallol -----<br>powder ( <i>pyrogalllic acid</i> ,<br><i>1,2,3-benzenetriol</i> )<br><br>C <sub>6</sub> H <sub>6</sub> O <sub>3</sub> (s) | B                      | 2  | 1  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the respiratory system, liver, kidneys, eyes, skin and blood; combustible if ignited or heated. | D2          | 3             | 6.1<br>(8)       | WF/I             |
| 14808-60-7 | quartz -----<br>crystalline<br>( <i>silica</i> )<br>Si(s)                                                                                     | A                      | 1  | 0  | 0  | Dust or granules can be a mild skin irritant, prolonged overexposure to dust leads to silicosis; may be carcinogenic.                                                                                                  | NC          | 8             | NR               | R or T           |
| 117-92-0   | quinaldine red -----<br>powder<br>C <sub>21</sub> H <sub>23</sub> IN <sub>2</sub> (s)                                                         | B                      | 2  | 0  | 0  | May cause irritation; may be harmful if inhaled, ingested or absorbed via skin.                                                                                                                                        | NC          | 8             | NR               | WF/I             |

| CAS Number            | Chemical Name(s), State and Formula                                                                                             | Use in School Category  | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a                   | quinine sulfate dihydrate ----- powder<br>(quinicardine)<br><br>$(C_{20}H_{24}N_2O_2)_2$<br>$H_2SO_4 \bullet 2H_2O$ (2:1:2) (s) | B                       | 2  | 1  | 0  | May cause irritation to skin, eyes and respiratory tract; harmful if swallowed, may be harmful if inhaled; prolonged exposure affects the cardiovascular and central nervous system; flammable if heated or ignited, dust-air mixture explosive.                                               | D2          | 8             | NR               | WF/I             |
| 9001-98-3<br>(rennin) | Rennett tablets ----- solid<br>(rennin)<br>(variable composition)                                                               | A                       | 0  | 1  | 0  | May cause irritation of the eyes, chronic exposure may produce an allergenic sensitization in susceptible individuals.                                                                                                                                                                         | NC          | 8             | NR               | T                |
| 108-46-3              | resorcinol ----- powder<br>(1,3-benzenediol)<br><br>$C_6H_6O_2(s)$                                                              | B - soln.<br>C - powder | 3  | 1  | 0  | Toxic; causes severe irritation to skin and eyes, less to the respiratory tract; harmful if absorbed through skin or inhaled, may be fatal if ingested; long-term exposure affects liver, kidneys, cardiovascular system, central nervous system and spleen; combustible if ignited or heated. | D1,<br>D2   | 8             | 6.1              | WF/I             |
| 141-84-4              | rhodanine ----- crystals<br>(rhodanic acid)<br><br>$C_3H_3NOS_2(s)$                                                             | B                       | 2  | 1  | 0  | May cause irritation to skin, respiratory and digestive tracts, irritant to eyes; harmful if swallowed; combustible at elevated temperatures                                                                                                                                                   | D2          | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                                                                                    |                        |    |    |    | or if ignited, dust-air mixture explosive.                                                                                                                                             |             |               |                  |                  |
| 304-59-6   | Rochelle salt -----<br>powder<br>( <i>potassium sodium tartrate</i> )<br>$\text{KNaC}_4\text{H}_4\text{O}_6$ (s)                                                   | A                      | 1  | 1  | 0  | May cause irritation to eyes, skin and respiratory tract; combustible at elevated temperatures or if ignited, dust-air mixture explosive.                                              | NC          | 8             | NR               | T or D(aq)       |
| 633-00-1   | rosolic acid ----- powder<br>( <i>aurin</i> )<br>$\text{C}_{20}\text{H}_{16}\text{O}_3$ (s)                                                                        | B                      | 1  | 1  | 0  | Irritant to eyes, skin and respiratory tract; combustible at elevated temperatures or if ignited, dust-air mixture explosive.                                                          | NC          | 3             | NR               | WF/I             |
| 71-23-8    | rubbing alcohol -----<br>liquid<br>( <i>n-propyl alcohol, n-propanol</i> )<br><br>$\text{C}_3\text{H}_8\text{O(l)}$ or<br>$\text{CH}_3(\text{CH}_2)_2\text{OH(l)}$ | B                      | 2  | 3  | 0  | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin, may affect the central nervous system; flammable liquid and vapour. | B, D2       | 5             | 3                | D or WF/I        |
| n/a        | safranin O -----<br>solution<br><u>mixture</u> :<br>water -----<br>98.8%<br>sodium benzoate ---<br>0.2%<br>safranin O -----<br>1.0%                                | A                      | 1  | 0  | 0  | May irritate the eyes and skin. No other adverse effects.                                                                                                                              | NC          | 8             | NR               | D                |
| 477-73-6   | safranin O -----<br>powder                                                                                                                                         | A                      | 1  | 0  | 0  | Dust irritates the eyes and skin. No other                                                                                                                                             | NC          | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                  | Use in School Category    | H* | F* | R* | Hazards                                                                                                                                                                                                                                    | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------|---------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | $C_{20}H_{19}N_4Cl(s)$                                                                               |                           |    |    |    | adverse effects.                                                                                                                                                                                                                           |             |               |                  |                  |
| 69-72-7    | salicylic acid-----<br>crystals<br>(2-hydroxybenzoic acid)<br>$C_7H_6O_3(l)$ or<br>$HOC_6H_4COOH(l)$ | B                         | 2  | 1  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the central nervous system, kidneys and pancreas; combustible at elevated temperatures, dust-air mixture explosive. | D1, D2      | 3             | NR               | WF/I or N/P-D    |
| 7782-49-2  | selenium -----<br>shot<br><br>Se(s)                                                                  | B                         | 2  | 0  | 0  | Dust causes severe irritation to skin, eyes and respiratory tract; dust harmful if swallowed or inhaled; affects the liver, kidneys, blood and spleen.                                                                                     | D1          | 8             | NR               | WF/I             |
| 56-45-1    | serine -----<br>powder<br>$C_3H_7NO_3(s)$                                                            | A                         | 1  | 0  | 0  | May cause irritation to skin, eyes, digestive and respiratory tracts.                                                                                                                                                                      | NC          | 8             | NR               | T or D(aq)       |
| 1343-98-2  | silicic acid -----<br>granules<br>(silica gel)<br>$H_2SiO_3(s)$                                      | A                         | 1  | 0  | 0  | May cause irritation to skin, eyes, digestive and respiratory tracts.                                                                                                                                                                      | NC          | 3             | NR               | T                |
| 7440-21-3  | silicon ---- crystals/powder<br><br>Si(s)                                                            | B - crystal<br>C - powder | 1  | 3  | 0  | May cause irritation to skin, eyes, digestive and respiratory tracts; may cause central nervous system depression; flammable powder.                                                                                                       | B, D2       | 4             | 4.1              | WF/I             |
| 7631-86-9  | silicon dioxide ----<br>granules                                                                     | A                         | 2  | 0  | 0  | May cause eye irritation; harmful if dust inhaled,                                                                                                                                                                                         | D2          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                   | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                           | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
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|            | (silica, quartz, sand)<br>SiO <sub>2</sub> (s)                                        |                        |    |    |         | carcinogenic over extended period of inhalation.                                                                                                                  |             |               |                  |                  |
| 7440-22-4  | silver (metal) -----<br>solid<br>and foil<br><br>Ag(s)                                | A                      | 0  | 0  | 0       | Dust may cause mild skin, eye or mucous membrane irritation; prolonged exposure can cause permanent blue-grey staining of eyes, skin, nose, mouth and throat.     | NC          | 8             | NR               | R                |
| 563-63-3   | silver acetate -----<br>powder<br>AgC <sub>2</sub> H <sub>3</sub> CO <sub>2</sub> (s) | A                      | 1  | 0  | 0       | Causes irritation to skin, eyes and respiratory tract; may cause digestive tract irritation.                                                                      | D2          | 8             | NR               | N/P -R           |
| 7785-23-1  | silver bromide -----<br>powder<br>AgBr(s)                                             | A                      | 1  | 0  | 0       | May cause irritation to skin, eyes and digestive tract.                                                                                                           | D2          | 8             | NR               | N/P -R           |
| 7783-90-6  | silver chloride -----<br>powder<br>AgCl(s)                                            | A                      | 1  | 0  | 0       | May cause irritation to skin, eyes and digestive tract; causes respiratory tract irritation.                                                                      | D2          | 8             | NR               | N/P -R           |
| 7761-88-8  | silver nitrate -----<br>crystals<br><br>AgNO <sub>3</sub> (s)                         | B                      | 3  | 0  | 0<br>ox | Corrosive; causes burns to any area of contact; may be fatal if swallowed, harmful if inhaled; strong oxidizer, contact with combustible material may cause fire. | C, D1, E    | 6             | 5.1              | N/P -R           |
| 20667-12-3 | silver oxide -----<br>powder                                                          | A                      | 2  | 0  | 1<br>ox | Contact with skin and eyes causes severe irritation and possible burns; may cause irritation of the respiratory                                                   | C, D2       | 6             | 5.1              | N/P-R            |

| CAS Number              | Chemical Name(s), State and Formula                                                                                                                   | Use in School Category | H* | F* | R*     | Hazards                                                                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|                         | Ag <sub>2</sub> O(s)                                                                                                                                  |                        |    |    |        | tract; harmful if swallowed; strong oxidizer, contact with combustible material may cause fire; absorbs CO <sub>2</sub> from air.                                                                                      |             |               |                  |                  |
| 10294-26-5              | silver sulfate-----<br>crystals<br>Ag <sub>2</sub> SO <sub>4</sub> (s)                                                                                | A                      | 1  | 0  | 0      | May cause irritation to skin, eyes, respiratory and digestive tract.                                                                                                                                                   | D2          | 8             | NR               | N/P -R           |
| n/a                     | soda lime ----- pellets<br><u>mixture</u> :<br>ethyl violet ----- < 1%<br>NaOH ----- < 2%<br>KOH ----- < 3%<br>Ca(OH) <sub>2</sub> ----- > 80%        | B                      | 3  | 0  | 0      | Corrosive; causes severe burns to any area of contact; causes severe irritation to respiratory tract; harmful if swallowed or inhaled; absorbs CO <sub>2</sub> from air to form calcium carbonate.                     | NC          | 2             | 8                | WF/I or N/P-D    |
| 7440-23-5               | sodium (metal) -----<br>solid<br><br>Na(s)                                                                                                            | C                      | 3  | 3  | 2<br>W | Corrosive; contact may cause burns; harmful if metal absorbed through skin, harmful or fatal if ingested; flammable solid, ignites spontaneously in air; reacts violently with water releasing explosive hydrogen gas. | B, E        | 4             | 4.3              | N/P-D or WF/I    |
| 127-09-3<br>& 6131-90-4 | sodium acetate anhydrous<br>CH <sub>3</sub> COONa(s)<br>& sodium acetate trihydrate ----- crystals<br>&<br>CH <sub>3</sub> COONa•3H <sub>2</sub> O(s) | A                      | 1  | 1  | 0      | May cause skin, eye and respiratory tract irritation; combustible if heated or ignited, particle-air mixture explosive.                                                                                                | D2          | 8             | NR               | T or D(aq)       |
| 7784-46-5               | sodium arsenite ---                                                                                                                                   | D                      | 3  | 0  | 0      | Toxic; causes irritation to                                                                                                                                                                                            | D2          | 8             | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                      | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                    | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | powder<br>$\text{NaAsO}_2(\text{s})$                                                                                     |                        |    |    |         | skin, eyes and respiratory tract; may be fatal by ingestion or inhalation; may cause liver and kidney damage; carcinogen.                  |             |               |                  |                  |
| 532-32-1   | sodium benzoate -- powder<br>$\text{C}_6\text{H}_5\text{COONa}(\text{s})$                                                | B                      | 1  | 1  | 0       | May cause skin, eye and respiratory tract irritation; ignition possible if heated, dust-air mixture explosive.                             | NC          | 8             | NR               | T                |
| 1303-96-4  | sodium borate decahydrate ----- powder (borax)<br>$\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}(\text{s})$ | A                      | 2  | 0  | 0       | Causes irritation of the eyes, skin and respiratory tract; harmful if swallowed, inhaled or absorbed through skin.                         | NC          | 8             | NR               | T or D(aq)       |
| 7789-38-0  | sodium bromate --- powder<br>$\text{NaBrO}_3(\text{s})$                                                                  | B                      | 2  | 0  | 1<br>OX | Causes irritation to eyes, skin, digestive and respiratory tracts, oxidizing agent.                                                        | C, D1       | 6             | 5.1              | WF/I             |
| 7647-15-6  | sodium bromide -- granules<br>$\text{NaBr}(\text{s})$                                                                    | B                      | 2  | 0  | 0       | May cause irritation to eyes, skin and respiratory tract; harmful if swallowed; affects the central nervous system and eyes.               | NC          | 8             | NR               | D                |
| 497-19-8   | sodium carbonate anhydrous ----- granular<br>$\text{Na}_2\text{CO}_3(\text{s})$                                          | A                      | 2  | 0  | 0       | May cause eye and skin irritation with possible burns and irritation of respiratory and digestive tracts; harmful if inhaled or swallowed. | D1, D2      | 8             | NR               | T or D(aq)       |
| 7775-09-9  | sodium chlorate ---                                                                                                      | B                      | 2  | 0  | 2<br>OX | Causes irritation to eyes,                                                                                                                 | C, D1       | 6             | 5.1              | WF/I or          |

| CAS Number | Chemical Name(s), State and Formula                                                                                      | Use in School Category   | H* | F* | R*      | Hazards                                                                                                                                                                                                                                     | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------|----|----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | crystals<br><br>NaClO <sub>3</sub> (s)                                                                                   |                          |    |    |         | skin and respiratory tract, harmful if swallowed; may cause damage to blood, liver or kidneys; strong oxidizing agent, contact with combustible material may cause fire.                                                                    |             |               |                  | N/P-T            |
| 7647-14-5  | sodium chloride -- granules<br>NaCl(s)                                                                                   | A                        | 1  | 0  | 0       | Dust may cause irritation to eyes, skin and respiratory tract.                                                                                                                                                                              | NC          | 8             | NR               | T or D(aq)       |
| 10034-82-9 | sodium chromate tetrahydrate ----- powder<br><br>Na <sub>2</sub> CrO <sub>4</sub> •4H <sub>2</sub> O(s)                  | B - soln<br>C - crystals | 3  | 0  | 1<br>OX | Corrosive; causes severe burns to any area of contact; harmful if swallowed or inhaled; affects the respiratory system, kidneys, eyes, skin and blood; strong oxidizer, contact with combustible material may cause fire; human carcinogen. | C, D1, D2   | 6             | 5.1 (8)          | N/P-T or WF/I    |
| 6132-04-3  | sodium citrate dihydrate--- powder<br>Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> •2H <sub>2</sub> O(s) | A                        | 1  | 0  | 0       | May cause irritation to eyes, skin, digestive and respiratory tracts.                                                                                                                                                                       | NC          | 8             | NR               | T or D(aq)       |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                   | Use in School Category    | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|----|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7789-12-0  | sodium dichromate dihydrate ----- powder<br><br>$\text{Na}_2\text{Cr}_2\text{O}_7 \cdot 2\text{H}_2\text{O}(\text{s})$                                | B - soln.<br>C - crystals | 3  | 0  | 2<br>OX | Corrosive; causes burns to skin, eyes, respiratory and digestive tracts; may be fatal if swallowed, harmful if inhaled or if absorbed through skin; causes cardiac disturbances, may cause blood and kidney damage; strong oxidizer, may cause fire if in contact with combustible material; human carcinogen. | C, D1, D2   | 6             | 6.1<br>(8)       | WF/I or N/P-D    |
| 7558-80-7  | sodium dihydrogen phosphate ----- crystals<br>(sodium phosphate monobasic dihydrate)<br>$\text{NaH}_2\text{PO}_4 \cdot 2\text{H}_2\text{O}(\text{s})$ | A                         | 1  | 0  | 0       | May cause irritation of the skin, eyes, respiratory and digestive tracts.                                                                                                                                                                                                                                      | NC          | 8             | NR               | WF/I             |
| 127-09-3   | sodium ethanoate-- crystals<br>(sodium acetate)<br>$\text{CH}_3\text{COONa}(\text{s})$                                                                | A                         | 1  | 1  | 0       | May cause skin, eye and respiratory tract irritation; combustible if heated or ignited, particle-air mixture explosive.                                                                                                                                                                                        | D2          | 8             | NR               | T or D(aq)       |
| 7681-49-4  | sodium fluoride ---- crystals<br><br>$\text{NaF}(\text{s})$                                                                                           | B - soln.<br>C - crystals | 3  | 0  | 0       | Toxic; causes irritation to skin and eyes, and severe irritation to respiratory tract, irritation effects may be delayed; may be fatal if swallowed or inhaled; prolonged exposure affects the respiratory, circulatory,                                                                                       | D1, D2      | 8             | 6.1              | WF/I             |

| CAS Number                            | Chemical Name(s), State and Formula                                                                                                                                      | Use in School Category    | H* | F* | R*                | Hazards                                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
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|                                       |                                                                                                                                                                          |                           |    |    |                   | central nervous system and kidneys; may cause mottling of teeth and bone damage.                                                                                                                                |             |               |                  |                  |
| 144-55-8                              | sodium hydrogen carbonate ----- powder<br>(sodium bicarbonate, baking soda)<br>$\text{NaHCO}_3(\text{s})$                                                                | A                         | 1  | 0  | 0                 | May cause slight irritation of the eyes, skin and respiratory tract.                                                                                                                                            | NC          | 8             | NR               | T or D(aq)       |
| 7558-79-4                             | sodium hydrogen phosphate anhydrous ----- granules<br>(sodium hydrogen phosphate dibasic)<br>$\text{Na}_2\text{HPO}_4(\text{s})$                                         | A                         | 1  | 0  | 0                 | May cause irritation to skin, eyes and respiratory tract.                                                                                                                                                       | NC          | 8             | NR               | WF/I             |
| 10034-88-5                            | sodium hydrogensulfate monohydrate ----- crystals<br>(sodium bisulfate)<br>$\text{NaHSO}_4 \cdot \text{H}_2\text{O}(\text{s})$                                           | B - soln.<br>C - crystals | 3  | 0  | 2<br><del>W</del> | Corrosive; causes burns to any area of contact; may be harmful or fatal if swallowed; causes severe irritation and burns to respiratory tract; reacts violently with moisture in air or with water or steam.    | E           | 8             | 8                | WF/I             |
| 7631-90-5<br>(sodium hydrogensulfite) | sodium hydrogensulfite (sodium bisulfite)- granules<br><u>mixture</u> :<br>$\text{NaHSO}_3(\text{s})$ ----- 58 - 99%<br>$\text{Na}_2\text{SO}_5(\text{s})$ ----- 1 - 42% | B                         | 2  | 0  | 1                 | Causes irritation to eyes, skin and respiratory tract; harmful if swallowed or inhaled, reacts with acids and water releasing toxic $\text{SO}_2$ gas; oxidizes to the sulfate on exposure to air and moisture. | d2          | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                | Use in School Category             | H* | F* | R*      | Hazards                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----|----|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 1310-73-2  | sodium hydroxide -- pellets ( <i>caustic soda</i> )<br><br>NaOH(s)                                                                                 | B                                  | 3  | 0  | 1       | Corrosive; causes burns to any area of contact, may be fatal if swallowed; harmful if inhaled; heat released when added to water.                                                              | D1, E       | 2             | 8                | WF/I or N/P-D    |
| 1310-73-2  | sodium hydroxide-solution ( <i>caustic soda</i> )<br><u>mixture</u> :<br>H <sub>2</sub> O ----- 80 - 90%<br>NaOH ----- 10 - 20%<br>NaOH(aq)        | A - 5% or less<br>B - more than 5% | 3  | 0  | 1       | Corrosive; causes burns to any area of contact, may be fatal if swallowed; harmful if inhaled; heat released when added to water.                                                              | D1, E       | 2             | 8                | WF/I or N/P-D    |
| 7681-52-9  | sodium hypochlorite ----- solution ( <i>bleach</i> )<br><u>mixture</u> :<br>H <sub>2</sub> O ----- 80 - 99%<br>NaClO----- 1 - 20%<br><br>NaOCl(aq) | B                                  | 2  | 0  | 2<br>OX | Skin irritant, may cause burns to skin and eyes; harmful by inhalation, ingestion or through skin contact; light and temperature sensitive, decomposes with release of chlorine gas; oxidizer. | C, D1       | 6             | 8                | D                |

| CAS Number | Chemical Name(s), State and Formula                                                             | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                                                                                            | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------|------------------------|----|----|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7681-55-2  | sodium iodate -----<br>powder<br><br>NaIO <sub>3</sub> (s)                                      | B                      | 2  | 0  | 1<br>OX | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; strong oxidizer, may cause fire in contact with combustible material; may explode with strong mechanical shock or friction.                                                                                                                | C           | 6             | 5.1              | WF/I             |
| 7681-82-5  | sodium iodide -----<br>crystals<br><br>NaI(s)                                                   | B                      | 2  | 0  | 1       | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; chronic exposure produces "iodism" with headache, fever, laryngitis, bronchitis and iodine mumps; absorbs moisture; decomposes if heated releasing toxic fumes of iodine and sodium oxide.<br>Note: Added to table salt for iodine source. | D2          | 8             | NR               | T or D(aq)       |
| 7681-57-4  | sodium metabisulfite -----<br>granules<br><br>Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> (s) | B                      | 2  | 0  | 1       | Causes irritation to eyes, skin and respiratory tract; harmful if swallowed or inhaled; slowly oxidizes to the sulfate on exposure to air and moisture; reacts with acids and water releasing toxic SO <sub>2</sub> gas.                                                                                                           | D2          | 8             | NR               | D-(aq) or WF/I   |
| 10213-79-3 | sodium metasilicate                                                                             | B                      |    |    |         | Corrosive when wet;                                                                                                                                                                                                                                                                                                                | D2, E       | 8             | 8                | WF/I or          |

| CAS Number | Chemical Name(s), State and Formula                                                             | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                  | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------|------------------------|----|----|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | pentahydrate -----<br>powder<br>$\text{Na}_2\text{SiO}_3 \bullet 5\text{H}_2\text{O}(\text{s})$ |                        | 3  | 0  | 0       | severe irritant to skin, causes rapid burns to eyes and severe burns to mouth, throat and stomach if ingested; harmful if inhaled.                                                                                                                       |             |               |                  | N/P-D            |
| 7631-99-4  | sodium nitrate -----<br>crystals<br><br>$\text{NaNO}_3(\text{s})$                               | B                      | 2  | 0  | 1<br>OX | May cause irritation to eyes, skin and respiratory tract; harmful if swallowed or inhaled; strong oxidizer, contact with combustible material may cause fire; decomposes explosively if heated to $>538^\circ\text{C}$ or with severe impact.            | C, D2       | 6             | 5.1              | WF/I             |
| 7632-00-0  | sodium nitrite -----<br>granules<br><br>$\text{NaNO}_2(\text{s})$                               | B                      | 2  | 0  | 1<br>OX | Causes irritation to eyes, skin and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; strong oxidizer, contact with combustible material may cause fire; explosion risk if heated to $537^\circ\text{C}$ or with severe impact. | C, D1, D2   | 6             | 5.1              | WF/I             |
| 62-76-0    | sodium oxalate ----<br>powder<br><br>$\text{Na}_2\text{C}_2\text{O}_4(\text{s})$                | D                      | 3  | 0  | 0       | Corrosive; causes burns to any area of contact; harmful if inhaled, may be fatal if ingested; may affect the kidneys.                                                                                                                                    | D1, D2      | 8             | 6.1<br>(8)       | WF/I             |
| 1313-60-6  | sodium peroxide --<br>granules                                                                  | C                      | 3  | 0  | 1<br>OX | Corrosive; causes burns to any area of contact; harmful if swallowed or                                                                                                                                                                                  | C, D1, D2   | 6             | 5.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                | Use in School Category | H* | F* | R*     | Hazards                                                                                                                                                                                                    | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | $\text{Na}_2\text{O}_2(\text{s})$                                                                                                  |                        |    |    | W      | inhaled; reacts with water; strong oxidizer, contact with combustible material may cause fire.                                                                                                             |             |               |                  |                  |
| 10101-89-0 | sodium phosphate tribasic dodecahydrate -- crystals<br>$\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}(\text{s})$               | B                      | 2  | 0  | 1<br>W | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed or inhaled; reacts with water.                                                                                             | NC          | 8             | NR               | WF/I             |
| 137-40-6   | sodium propionate-powder<br>$\text{NaC}_3\text{H}_5\text{O}_2(\text{s})$ or<br>$\text{CH}_3\text{CH}_2\text{COONa}(\text{s})$      | A                      | 1  | 0  | 0      | Causes irritation of the skin and eyes.                                                                                                                                                                    | NC          | 8             | NR               | T or D(aq)       |
| 1344-09-8  | sodium silicate ----- powder<br>( <i>waterglass</i> )<br>$\text{Na}_2\text{SiO}_3(\text{s})$                                       | B                      | 3  | 0  | 0      | Corrosive; causes severe burns to any area of contact, harmful if swallowed or inhaled.                                                                                                                    | D2          | 8             | 8                | WF/I             |
| 13517-24-3 | sodium silicate nanohydrate ----- powder<br>( <i>waterglass</i> )<br>$\text{Na}_2\text{SiO}_3 \cdot 9\text{H}_2\text{O}(\text{s})$ | B                      | 3  | 0  | 0      | Corrosive; causes severe irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled.                                                                                                  | D2          | 8             | 8                | WF/I             |
| 7757-82-6  | sodium sulfate ----- powder<br>$\text{Na}_2\text{SO}_4(\text{s})$                                                                  | A                      | 1  | 0  | 0      | May cause irritation of skin, eye, respiratory and digestive tract.                                                                                                                                        | NC          | 8             | NR               | T or D(aq)       |
| 1313-84-4  | sodium sulfide nonahydrate ----- crystals<br>$\text{Na}_2\text{S} \cdot 9\text{H}_2\text{O}(\text{s})$                             | D                      | 3  | 0  | 1      | Corrosive; causes severe burns to any area of contact, harmful if swallowed or inhaled; unstable in storage, decomposes in contact with moisture and acids forming toxic combustible hydrogen sulfide gas. | B, D1       | 8             | 8                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                         | Use in School Category | H* | F* | R*                | Hazards                                                                                                                                                                               | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7757-83-7  | sodium sulfite -----<br>crystals<br>$\text{Na}_2\text{SO}_3(\text{s})$                                                                                                      | A                      | 2  | 0  | 0                 | May cause irritation of skin, eye and respiratory tract; harmful if swallowed.                                                                                                        | D2          | 8             | NR               | WF/I             |
| 1303-96-4  | sodium tetraborate decahydrate -----<br>crystals<br>( <i>sodium borate, borax</i> )<br>$\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}(\text{s})$               | A                      | 2  | 0  | 0                 | May cause irritation of skin, eye, respiratory and digestive tract, may cause adverse reproductive effects.                                                                           | NC          | 8             | NR               | T or D(aq)       |
| 540-72-7   | sodium thiocyanate -----<br>crystals<br>$\text{NaSCN}(\text{s})$                                                                                                            | B                      | 2  | 0  | 1                 | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; may affect heart, blood, thyroid and central nervous system; decomposes on exposure to light. | D1,<br>D2   | 8             | 6.1              | WF/I             |
| 7772-98-7  | sodium thiosulfate--<br>crystals<br>$\text{Na}_2\text{S}_2\text{O}_3(\text{s})$                                                                                             | B                      | 2  | 0  | 0                 | May cause irritation of skin, eye and respiratory tract; may be harmful if swallowed or inhaled.                                                                                      | D2          | 8             | NR               | T or D(aq)       |
| 9005-25-8  | starch -----<br>powder<br>$(\text{CH}_2\text{O})_n(\text{s})$                                                                                                               | A                      | 0  | 1  | 0                 | May cause irritation to skin, eyes and respiratory tract; may form explosive dust- air mixture.                                                                                       | NC          | 8             | NR               | T                |
| 57-11-4    | stearic acid -----<br>powder<br>( <i>octadecanoic acid</i> )<br>$\text{C}_{18}\text{H}_{36}\text{O}_2(\text{s})$ or<br>$\text{CH}_3(\text{CH}_2)_{16}\text{COOH}(\text{s})$ | A                      | 1  | 1  | 0                 | May cause irritation of skin, eye and respiratory tract; combustible if heated or ignited, air-dust mixture explosive.                                                                | NC          | 3             | NR               | WF/I or N/P-D    |
| 7440-24-6  | strontium -----<br>solid                                                                                                                                                    | C                      | 3  | 4  | 2<br><del>W</del> | Corrosive; contact may cause burns; harmful or                                                                                                                                        | D2, E       | 4             | 4.3              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                       | Use in School Category | H* | F* | R*      | Hazards                                                                                                                                                                                                                                                         | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | Sr(s)                                                                                                                     |                        |    |    |         | fatal if swallowed; flammable solid, granules ignite spontaneously with air; reacts with water.                                                                                                                                                                 |             |               |                  |                  |
| 14692-29-6 | strontium acetate hemihydrate ----- crystals<br>$\text{SrC}_4\text{H}_6\text{O}_4 \cdot 0.5 \text{H}_2\text{O}(\text{s})$ | A                      | 0  | 0  | 0       | No adverse effects.                                                                                                                                                                                                                                             | NC          | 8             | NR               | T                |
| 10025-70-4 | strontium chloride hexahydrate ----- powder<br>$\text{SrCl}_2 \cdot 6\text{H}_2\text{O}(\text{s})$                        | B                      | 2  | 0  | 0       | May cause irritation of skin, eye and respiratory tract; may be harmful if swallowed or inhaled.                                                                                                                                                                | D2          | 8             | NR               | WF/I or N/P-D    |
| 10042-76-9 | strontium nitrate --- powder<br><br>$\text{Sr}(\text{NO}_3)_2(\text{s})$                                                  | B                      | 2  | 0  | 0<br>OX | Causes irritation of skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; strong oxidant, fire risk in contact with organic material.                                                                                      | C, D2       | 6             | 5.1              | WF/I             |
| 100-42-5   | styrene ----- oily liquid<br>( <i>ethenylbenzene</i> )<br><br>$\text{C}_8\text{H}_8(\text{l})$                            | C                      | 2  | 3  | 2       | Causes irritation of skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the central nervous system, liver and reproductive system; flammable liquid and vapour; stabilized form polymerizes at room temperature. | B, D1, D2   | 5             | 3                | WF/I             |
| 110-15-6   | succinic acid ----- crystals                                                                                              | A                      | 1  | 1  | 0       | Causes irritation of skin, eyes and respiratory                                                                                                                                                                                                                 | D2          | 3             | NR               | T or D(aq)       |

| CAS Number | Chemical Name(s), State and Formula                                      | Use in School Category    | H* | F* | R* | Hazards                                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------|---------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | (butanedioic acid)<br>$C_4H_6O_4(s)$ or<br>$HOOCCH_2CH_2COOH(s)$         |                           |    |    |    | tract, irritation to eyes may be severe; combustible if heated or ignited, air-dust mixture explosive.                                                                                                         |             |               |                  |                  |
| 57-50-1    | sucrose -----<br>crystals<br>$C_{12}H_{22}O_{11}(s)$                     | A                         | 0  | 1  | 0  | High concentration of dust may irritate the eyes and respiratory tract; combustible if heated or ignited, air-dust mixture explosive.                                                                          | NC          | 8             | NR               | T or D(aq)       |
| 85-86-9    | sudan III -----<br>powder<br>$C_{22}H_{16}N_4O(s)$                       | A                         | 0  | 1  | 0  | No adverse health affects; combustible if heated or ignited, dust-air mixture explosive.                                                                                                                       | NC          | 8             | NR               | WF/I             |
| 85-83-6    | sudan IV -----<br>powder<br>$C_{24}H_{20}N_4O(s)$                        | A                         | 0  | 1  | 0  | May cause skin, eye and respiratory tract irritation; combustible if heated or ignited, dust-air mixture explosive.                                                                                            | NC          | 8             | NR               | WF/I             |
| 5329-14-6  | sulfamic acid -----<br>crystals<br>(amidosulfonic acid)<br>$H_3NO_3S(s)$ | B - soln.<br>C - crystals | 3  | 0  | 0  | Corrosive; causes severe irritation and burns to every area of contact; may be fatal if swallowed, harmful if inhaled.                                                                                         | D2, E       | 3             | 8                | WF/I             |
| 7704-34-9  | sulfur -----<br>solid<br>$S_8(s)$                                        | B                         | 2  | 1  | 0  | Dust irritating to skin, eyes and respiratory system; may be harmful if absorbed through skin, inhaled or ingested; sulfur dust-air mixture explosive; combustible if heated or ignited releasing toxic sulfur | D2          | 8             | 4.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                          | Use in School Category             | H* | F* | R*                | Hazards                                                                                                                                                                                                                                | WHMIS Class     | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----|----|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|------------------|------------------|
|            |                                                                                                                                                                                                              |                                    |    |    |                   | dioxide.                                                                                                                                                                                                                               |                 |               |                  |                  |
| 7664-93-9  | sulfuric acid -----<br>solution<br><u>mixture:</u><br>H <sub>2</sub> SO <sub>4</sub> ----- 52 - 100%<br>H <sub>2</sub> O ----- 0 - 48%<br><br>H <sub>2</sub> SO <sub>4</sub> (aq)                            | A - 5% or less<br>B - more than 5% | 3  | 0  | 2<br><del>W</del> | Corrosive; liquid and mist causes severe burns to all body tissues; may be fatal if swallowed or contacted with skin; harmful if inhaled; water reactive, releasing heat; cancer hazard with prolonged exposure to sulfuric acid mist. | D1,<br>D2, E    | 1             | 8                | WF/I or<br>N/P-D |
| 7782-99-2  | sulfurous acid -----<br>solution<br>( <i>hydrogen sulfite</i> )<br><u>mixture:</u><br>H <sub>2</sub> SO <sub>3</sub> ----- 6 - 12%<br>H <sub>2</sub> O ----- 88 - 94%<br>H <sub>2</sub> SO <sub>3</sub> (aq) | A - 5% or less<br>B - more than 5% | 3  | 0  | 0                 | Corrosive with prolonged contact, causes burns to any area of contact; harmful if inhaled or ingested.                                                                                                                                 | D1,<br>D2, E    | 8             | 8                | N/P-D            |
| 1401-55-4  | tannic acid -----<br>powder<br>( <i>tannin</i> )<br><br>C <sub>76</sub> H <sub>52</sub> O <sub>46</sub> (s)                                                                                                  | A                                  | 2  | 1  | 0                 | Causes irritation to skin, eyes and respiratory tract; may be harmful if swallowed or inhaled; large amounts can cause liver and kidney damage; combustible if heated or ignited, dust-air mixture explosive.                          | D1,<br>D2,<br>E | 3             | NR               | WF/I             |
| 87-69-4    | L-tartaric acid -----<br>crystals<br>( <i>2,3-dihydroxy-<br/>butanedioic acid</i> )<br>C <sub>4</sub> H <sub>6</sub> O <sub>6</sub> (s)                                                                      | A                                  | 1  | 1  | 0                 | May cause irritation to skin and eyes; combustible if heated or ignited, dust-air mixture explosive.                                                                                                                                   | E               | 3             | NR               | N/P-D<br>or WF/I |

| CAS Number | Chemical Name(s), State and Formula                                                                    | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|--------------------------------------------------------------------------------------------------------|------------------------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 127-18-4   | tetrachloroethylene -- liquid<br>(ethylene tetrachloride)<br><br>Cl <sub>2</sub> CCCl <sub>2</sub> (l) | C                      | 2  | 0  | 0  | Harmful if swallowed, inhaled or absorbed through skin; causes irritation to skin, eyes and respiratory tract; severe or prolonged exposure affects the central nervous system, liver and kidneys; may be a human carcinogen.                                                          | D1, D2      | 1             | 6.1              | WF/I             |
| 7440-28-0  | thallium metal ----- solid<br><br>Tl(s)                                                                | C                      | 3  | 0  | 0  | Toxic metal; may be fatal by absorption through skin, ingestion or by inhalation of dust. Ingestion leads to nausea, vomiting, convulsions and death due to central nervous system damage; prolonged or repeated exposure may result in hair loss, kidney damage, paralysis and death. | D1, D2      | 8             | 6.1              | WF/I             |
| 62-55-5    | thioacetamide ----- crystals (ethanethioamide)<br><br>C <sub>2</sub> H <sub>5</sub> NS(s)              | A                      | 2  | 1  | 0  | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; possible carcinogen; combustible if heated or ignited, dust-air mixture explosive.                                                                                      | D1, D2      | 8             | NR               | WF/I             |
| 7440-29-1  | thorium ----- solid                                                                                    | D                      | 3  | 0  | 0  | Toxic, radioactive element; avoid skin                                                                                                                                                                                                                                                 | D1, D2      | 8             | 6.1              | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                       | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                      | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | Th(s)                                                                                     |                        |    |    |    | contact or inhalation of dust.                                                                                                                                               |             |               |                  |                  |
| 76-61-9    | thymol blue -----<br>powder<br>( <i>thymolsulfonephthalein</i> )<br>$C_{27}H_{30}O_5S(s)$ | A                      | 1  | 1  | 0  | May cause irritation to skin, eyes and respiratory tract; combustible if heated or ignited.                                                                                  | NC          | 8             | NR               | WF/I             |
| 125-20-2   | thymolphthalein ---<br>crystals<br>$C_{28}H_{30}O_4(s)$                                   | A                      | 1  | 0  | 0  | May cause irritation to skin, eyes and respiratory tract.                                                                                                                    | NC          | 8             | NR               | WF/I             |
| 7772-99-8  | tin(II) chloride ---- crystals<br><br>$SnCl_2(s)$                                         | A                      | 2  | 0  | 0  | May cause severe eye and respiratory tract irritation, and digestive tract irritation with nausea, vomiting and diarrhea; may cause liver damage; hygroscopic.               | D2          | 8             | 8                | WF/I             |
| 7440-31-5  | tin metal -----<br>granules<br>or mossy<br>flakes<br><br>$Sn(s)$                          | A                      | 1  | 1  | 1  | May cause irritation to skin, eyes and respiratory tract; oxidizes especially in presence of moisture; dust-air mixture explosive.                                           | NC          | 8             | NR               | T                |
| 21651-19-4 | tin(II) oxide ----- powder<br><br>$SnO(s)$                                                | A                      | 1  | 0  | 0  | May cause irritation to skin, eyes and respiratory tract; may cause digestive tract irritation with nausea, vomiting and diarrhea; may cause central nervous system effects. | NC          | 8             | NR               | T                |
| 18282-10-5 | tin(IV) oxide ----- powder<br><br>$SnO_2(s)$                                              | A                      | 1  | 0  | 0  | May cause irritation to skin, eyes, digestive and respiratory tracts.                                                                                                        | D2          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                              | Use in School Category | H* | F* | R*                | Hazards                                                                                                                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------|------------------------|----|----|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7488-55-3  | tin(II) sulfate ----- powder<br><br>SnSO <sub>4</sub> (s)                        | A                      | 2  | 0  | 0                 | May cause irritation to skin and respiratory tract, causes irritation to skin and digestive tract with nausea, vomiting and diarrhea; may cause central nervous system and reproductive effects; moisture sensitive.           | D2          | 8             | NR               | T or D(aq)       |
| 7550-45-0  | titanium(IV) chloride----- powder<br><br>TiCl <sub>4</sub> (s)                   | C                      | 3  | 0  | 2<br><del>W</del> | Corrosive; causes severe irritation and burns to every area of contact; may be fatal if inhaled, may cause lung damage; harmful if ingested; water reactive.                                                                   | D2, E, F    | 8             | 6.1 (8)          | WF/I             |
| 7440-32-6  | titanium metal ----- solid<br>Ti(s)                                              | A                      | 1  | 0  | 0                 | Relatively nontoxic, dust can cause mild irritation of the respiratory system; dust-air mixture explosive.                                                                                                                     | NC          | 8             | NR               | R or T           |
| 13463-67-7 | titanium(IV) oxide - powder<br>TiO <sub>2</sub> (s)                              | A                      | 1  | 0  | 0                 | May cause irritation to skin, eyes and respiratory tract.                                                                                                                                                                      | NC          | 8             | NR               | T                |
| 108-88-3   | toluene ----- liquid<br>(methylbenzene)<br><br>C <sub>7</sub> H <sub>8</sub> (l) | C                      | 2  | 3  | 0                 | Causes irritation to skin, eyes and respiratory tract; harmful if inhaled or absorbed through skin, harmful or fatal if swallowed; may affect the liver, kidneys, blood system or central nervous system; flammable liquid and | B, D2       | 5             | 3                | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                            | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                                                                                                                                                              | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            |                                                                                                                                                                |                        |    |    |    | vapour.                                                                                                                                                                                                                                                                                                                                              |             |               |                  |                  |
| 71-55-6    | 1,1,1-trichloroethane-liquid<br>(methylchloroform)<br><br>C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub> (l) or CH <sub>3</sub> CCl <sub>3</sub> (l)            | C                      | 2  | 1  | 1  | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the central nervous system, liver, kidneys, and cardiovascular system; possible carcinogen; hydrolyzes slowly in water to form hydrochloric and acetic acids; combustible if heated or ignited, causes ozone degradation. | D2          | 8             | 6.1              | WF/I             |
| 76-13-1    | 1,1,2-trichloro-1,2,2-trifluoroethane ----- liquid<br>(freon)<br><br>CCl <sub>2</sub> FCClF <sub>2</sub> (l)                                                   | C                      | 2  | 0  | 0  | Causes irritation to eyes and respiratory tract; harmful if inhaled; affects the cardiovascular and central nervous systems. Destroys ozone in upper atmosphere.                                                                                                                                                                                     | D2          | 8             | 9                | WF/I             |
| 102-71-6   | triethanolamine ----- liquid<br>(trolamine)<br>C <sub>6</sub> H <sub>15</sub> NO <sub>3</sub> (l) or<br>(HOCH <sub>2</sub> CH <sub>2</sub> ) <sub>3</sub> N(l) | B                      | 2  | 1  | 1  | Causes skin irritation and severe irritation of the eyes; harmful if swallowed, chronic exposure may lead to liver and kidney damage; flammable, air-vapour mixture explosive; light and air sensitive.                                                                                                                                              | D1          | 8             | NR               | WF/I             |

| CAS Number            | Chemical Name(s), State and Formula                                                                                                       | Use in School Category | H* | F* | R*                | Hazards                                                                                                                                                                | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 7601-54-9             | trisodium phosphate-----<br>crystals<br>(sodium phosphate tribasic, TPS)<br>$\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}(\text{s})$ | A                      | 2  | 0  | 1<br><del>W</del> | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed or inhaled; reacts with water.                                                         | NC          | 8             | NR               | WF/I             |
| 73-22-3               | tryptophan -----<br>crystals<br>$\text{C}_{11}\text{H}_{12}\text{N}_2\text{O}_2(\text{s})$                                                | A                      | 1  | 0  | 0                 | May be irritating to skin, eyes, respiratory and digestive tracts.                                                                                                     | NC          | 8             | NR               | T                |
| 7440-33-7             | tungsten -----<br>solid<br><br>W(s)                                                                                                       | A                      | 1  | 2  | 1                 | Dust may cause irritation to skin, eyes, digestive and respiratory tracts; flammable solid, may ignite spontaneously in air.                                           | B           | 4             | 4.2              | R or T           |
| 7783-03-1             | tungstic acid -----<br>powder<br>$\text{H}_2\text{WO}_4(\text{s})$                                                                        | B                      | 2  | 0  | 0                 | Causes eye irritation, harmful if swallowed or inhaled, chronic inhalation hazard.                                                                                     | D2, E       | 1             | NR               | WF/I or N/P-D    |
| 9005-90-7             | turpentine -----<br>liquid<br><br>$\text{C}_{10}\text{H}_{16}(\text{l})$                                                                  | B                      | 2  | 3  | 0                 | Causes irritation to skin, eyes, digestive and respiratory tracts; harmful by ingestion, inhalation or skin absorption; flammable liquid and vapours, flashpoint 35°C. | B, D2       | 5             | 3                | WF/I             |
| 60-18-4<br>& 556-03-6 | L-tyrosine<br>& D,L-tyrosine -- crystals<br><br>$\text{C}_9\text{H}_{11}\text{NO}_3(\text{s})$                                            | A                      | 2  | 0  | 0                 | May cause irritation to skin, eyes and respiratory tract; may be harmful if swallowed, inhaled or absorbed through skin.                                               | D2          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                                                                                                                                                                                                                             | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                   | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| n/a        | universal indicator–<br>solution<br><u>mixture</u> :<br>methyl alcohol --- 10 -<br>20%<br>ethyl alcohol --- 60 -<br>100%<br>methyl ethyl ketone-<br><0.5%<br>ethyl acetate -----<br><0.2%<br>phenolphthalein ----<br><1.0%<br>methyl red -----<br><1.0%<br>bromothymol Blue -<br><0.2%<br>thymol blue -----<br><0.5%<br>butter yellow ----- <<br>0.1%<br>water -----<br>balance | A                      | 2  | 3  | 0  | Causes irritation of the skin and respiratory tract, severe irritation of the eyes; may be fatal by excessive ingestion, inhalation or skin absorption; flammable liquid. | B, D1       | 5             | 6.1              | WF/I             |
| 57-13-6    | urea -----<br>powder<br>( <i>carbamide</i> )<br>$\text{CH}_4\text{N}_2\text{O}(\text{s})$                                                                                                                                                                                                                                                                                       | A                      | 1  | 0  | 0  | Causes irritation to skin, eyes and respiratory tract; dust can be an explosive hazard if heated.                                                                         | NC          | 8             | NR               | T                |
| 51-79-6    | urethane –<br>crystals/powder<br>( <i>carbamic acid</i> ,<br><i>ethyl ester</i> )<br>$\text{C}_3\text{H}_7\text{NO}_2(\text{s})$                                                                                                                                                                                                                                                | B                      | 1  | 1  | 0  | Causes irritation to skin, eyes and respiratory tract; may cause irritation to digestive tract; solid and dust-air mixture combustible; possible human carcinogen.        | NC          | 8             | NR               | WF/I             |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                                         | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                             | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
| 109-52-4   | valeric acid -----<br>liquid<br>( <i>n-pentanoic acid</i> )<br><br>C <sub>5</sub> H <sub>10</sub> O <sub>2</sub> (l)                                                        | B                      | 2  | 1  | 0  | Irritates the skin, causes severe eye and respiratory tract irritation and possible burns; ingestion may cause irritation with nausea, vomiting and possible burns; flammable if heated or ignited. | E           | 3             | 8                | WF/I or N/P-T    |
| 72-18-4    | L-valine -----<br>crystals<br>C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> (s)                                                                                            | A                      | 1  | 0  | 0  | May cause irritation to skin and severe irritation to eyes and respiratory tract.                                                                                                                   | NC          | 8             | NR               | T                |
| 7440-62-2  | vanadium -----<br>powder<br><br>V(s)                                                                                                                                        | B                      | 2  | 1  | 0  | Causes irritation to skin and respiratory tract, and severe irritation to eyes; may cause irritation to digestive tract.                                                                            | D2          | 8             | NR               | R or T           |
| 64-19-7    | vinegar ----- solution<br>( <i>acetic acid</i> )<br><u>mixture</u> :<br>CH <sub>3</sub> COOH ----- 5 - 7%<br>H <sub>2</sub> O -----93 - 95%<br><br>CH <sub>3</sub> COOH(aq) | A                      | 1  | 0  | 0  | Causes irritation of the nose, throat and respiratory tract; prolonged contact may cause burns and dermatitis.                                                                                      | NC          | 1             | NR               | N/P-D            |
| 108-05-4   | vinyl acetate -----<br>liquid<br><br>C <sub>4</sub> H <sub>6</sub> O <sub>2</sub> (l)                                                                                       | C                      | 1  | 3  | 1  | Irritant to skin, eyes and mucous membranes; highly flammable; possible human carcinogen.                                                                                                           | B, D2       | 5             | 3                | WF/I             |
| 50-81-7    | vitamin C -----<br>crystals<br>( <i>ascorbic acid</i> )                                                                                                                     | A                      | 1  | 1  | 0  | May cause mild irritations of the skin, eyes, respiratory and digestive tracts; flammable if                                                                                                        | NC          | 3             | NR               | T or D(aq)       |

| CAS Number | Chemical Name(s), State and Formula                                                                                                                   | Use in School Category | H* | F* | R* | Hazards                                                                                                                                                                                                 | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | $C_6H_8O_6(s)$                                                                                                                                        |                        |    |    |    | heated or ignited.                                                                                                                                                                                      |             |               |                  |                  |
| 1344-09-8  | waterglass -----<br>solution<br>( <i>sodium silicate</i> )<br><u>mixture</u> : $H_2O$ ----- 60 - 65%<br>$Na_2SiO_3$ - 35 - 40%<br>Formula unspecified | B                      | 2  | 0  | 0  | Causes severe irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled.                                                                                                          | D2          | 8             | NR               | WF/I             |
| 119-36-8   | wintergreen oil -----<br>liquid<br>( <i>methyl salicylate</i> )<br>$C_8H_8O_3(l)$                                                                     | A                      | 2  | 1  | 0  | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin; affects the kidneys and central nervous system.                                      | D2          | 8             | NR               | WF/I             |
| 1330-20-7  | xylene (1, 2 & 1, 4 forms)-----<br>liquid<br>( <i>dimethylbenzene</i> )<br>$C_8H_{10}(l)$                                                             | C                      | 2  | 3  | 0  | Causes irritation of the skin, eyes and respiratory tract; may be harmful if swallowed or inhaled; causes central nervous system depression; flammable liquid and vapour, vapour-air mixture explosive. | B, D1, D2   | 5             | 3                | WF/I             |
| 557-34-6   | zinc acetate -----<br>powder<br>$ZnC_4H_6O_4(s)$                                                                                                      | A                      | 2  | 1  | 0  | Causes irritation of the skin, eyes and respiratory tract; harmful if swallowed or inhaled; combustible if heated or ignited.                                                                           | D2          | 8             | NR               | WF/I or N/P-T    |
| 3486-35-9  | zinc carbonate -----<br>powder                                                                                                                        | A                      | 2  | 0  | 0  | May cause irritation to skin, eyes and respiratory tract; may be harmful if                                                                                                                             | D2          | 8             | 9                | WF/I or N/P-T    |

| CAS Number | Chemical Name(s), State and Formula                                                                | Use in School Category    | H* | F* | R*                | Hazards                                                                                                                                                                      | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------------------------------------------------------------------|---------------------------|----|----|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | ZnCO <sub>3</sub> (s)                                                                              |                           |    |    |                   | swallowed, inhaled or absorbed through skin.                                                                                                                                 |             |               |                  |                  |
| 7646-85-7  | zinc chloride ----- granules<br>ZnCl <sub>2</sub> (s)                                              | B - soln.<br>C - granules | 3  | 0  | 0                 | Corrosive; causes burns to any area of contact; harmful if swallowed or inhaled, extremely destructive to mucous membranes; affects the cardiovascular system.               | D1, D2, E   | 8             | 8                | WF/I or N/P-T    |
| 7440-66-6  | zinc metal--(mossy) chunks<br>Zn(s)                                                                | A                         | 2  | 1  | 1                 | Dust may cause irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; dust-air mixture explosive, water reactive.                                  | D2          | 8             | NR               | R or T           |
| 10196-18-6 | zinc nitrate hexahydrate ----- crystals<br>Zn(NO <sub>3</sub> ) <sub>2</sub> •6H <sub>2</sub> O(s) | A                         | 2  | 0  | 2<br>ox           | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed or inhaled; strong oxidizer, increases flammability of combustible substance in contact with it. | C, D1       | 6             | 5.1              | WF/I             |
| 1314-13-2  | zinc oxide ----- powder<br>ZnO(s)                                                                  | A                         | 1  | 1  | 0                 | May irritate the respiratory tract; dust-air mixture explosive.                                                                                                              | NC          | 8             | NR               | T                |
| 7446-20-0  | zinc sulfate heptahydrate ----- crystals<br>ZnSO <sub>4</sub> •7H <sub>2</sub> O(s)                | A                         | 2  | 0  | 0                 | Causes irritation to skin, eyes and respiratory tract; harmful if swallowed, inhaled or absorbed through skin.                                                               | D2          | 8             | NR               | WF/I or N/P-T    |
| 1314-98-3  | zinc sulfide ----- powder                                                                          | A                         | 1  | 0  | 1<br><del>W</del> | Causes irritation to skin, eyes and respiratory tract; harmful if                                                                                                            | D2          | 8             | NR               | T                |

| CAS Number | Chemical Name(s), State and Formula    | Use in School Category | H* | F* | R* | Hazards                                                                                                                        | WHMIS Class | Storage Class | TDG Hazard Class | Disposal Methods |
|------------|----------------------------------------|------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|
|            | ZnS(s)                                 |                        |    |    |    | swallowed or inhaled; contact with stomach acid produces toxic hydrogen sulfide; reacts with water to produce zinc sulfate.    |             |               |                  |                  |
| 7440-67-7  | zirconium -----<br>chunks<br>Zr(s)     | A                      | 0  | 1  | 0  | Metal nontoxic; combustible if heated.                                                                                         | NC          | 8             | 4.1              | R or WF/I        |
| 7440-67-7  | zirconium -----<br>powder<br><br>Zr(s) | A                      | 1  | 2  | 0  | Causes some irritation to skin, eyes and respiratory tract; ingestion causes severe irritation to mucous membranes; flammable. | B, D1       | 4             | 4.1              | WF/I             |