



SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards

MSDS Revision: 1.1

MSDS Revision Date: 08/01/2012

1. PRODUCT IDENTIFICATION

| | |
|-----|--|
| 1.1 | Product Name: ELEMAN BLACK PEARL COLOR REFLECTING SHINE SERUM |
| 1.2 | Chemical Name: Dimethicone Solution |
| 1.3 | Synonyms: EL-BP12 |
| 1.4 | Trade Names: Eleman Black Pearl Color Reflecting Shine Serum |
| 1.5 | Product Use: Hair Serum - Professional or Sundry Use Only |
| 1.6 | Distributor's Name: ILU Beauty |
| 1.7 | Distributor's Address: 2132 113TH Street, Grand Prairie, TX 75050 USA |
| 1.8 | Emergency Phone: CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-3887 |
| 1.9 | Business Phone: +1 (877) 408-2234 |

2. HAZARD IDENTIFICATION

| | | | | | | | |
|-----|---|-------------|-----------|-------------|------------|------------|------------|
| 2.1 | <p>Hazard Identification:</p> <p>This product is neither classified as a HAZARDOUS SUBSTANCE nor as DANGEROUS GOODS according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia). In case of eye contact, rinse immediately with water. For external use only. Keep out of reach of children. Use only as directed.</p> <p>Hazard Statements (H): None.</p> <p>Precautionary Statements (P): P102 – Keep out of reach of children. P270 - Do not eat, drink, or smoke when using this product. P305+P351+P338 – IF IN EYES - Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.</p> | | | | | | |
| 2.2 | Routes of Entry: | Inhalation: | NO | Absorption: | YES | Ingestion: | YES |
| 2.3 | <p>Effects of Exposure:</p> <p>INGESTION: If product is swallowed, may cause nausea, vomiting and/or diarrhea.</p> <p>EYES: Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p>SKIN: The product may cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p> <p>INHALATION: None expected.</p> | | | | | | |
| 2.4 | <p>Symptoms of Overexposure:</p> <p>Overexposure in eyes may cause redness, itching and watering. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. The product may cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p> | | | | | | |
| 2.5 | <p>Acute Health Effects:</p> <p>Moderate irritation to eyes. Moderate irritation to skin near affected areas.</p> | | | | | | |
| 2.6 | <p>Chronic Health Effects:</p> <p>No harmful or chronic health effects are expected to occur from a single accidental ingestion.</p> | | | | | | |
| 2.7 | <p>Target Organs:</p> <p>Eyes</p> | | | | | | |

NA = Not Available; ND = Not Determined; NE = Not Established; C = Ceiling Limit; See Section 16 for Additional Definitions of Terms Used
 NOTE: all WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-2010 format.


3. COMPOSITION & INGREDIENT INFORMATION

| CHEMICAL NAME(S) | CAS No. | RTECS No. | EINECS No. | % | EXPOSURE LIMITS IN AIR (mg/m ³) | | | | | | | | |
|-----------------------------------|------------|-----------|------------|----|---|------|--------------|---------|---------|-------------|------|------|----------|
| | | | | | ACGIH ppm | | NOHSC ppm | | | OSHA ppm | | | OTHER |
| | | | | | TLV | STEL | ES-TWA | ES-STEL | ES-PEAK | PEL | STEL | IDLH | |
| CARYOCAR CORIACEUM SEED OIL | NA | NA | NA | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| DIMETHICONE | 63148-62-9 | JT6484500 | 213-915-7 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| CYCLOPENTASILOXANE | 541-02-6 | NA | 208-764-9 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| CYCLOMETHICONE | 69430-24-6 | NA | 209-136-7 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| C ₁₂₋₁₅ ALKYL BENZOATE | 68411-27-8 | Na | 270-112-4 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| FRAGRANCE (PARFUM) | NA | NA | NA | NA | NA | NA | NF | NF | NF | NA | NA | NA | ALLERGEN |
| BENZOPHENONE-3 | 131-57-7 | NA | 205-031-5 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| PANTHENOL | 16485-10-2 | NA | 240-540-6 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| MICA | 12001-26-2 | VV8760000 | 310-127-6 | NA | (3) | NA | (3) | NF | NF | 20 | NA | 1500 | |
| TITANIUM DIOXIDE | 13463-67-7 | XR2275000 | 236-675-5 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| CI 20470 (ACID BLACK) | 1064-48-8 | NA | 213-903-1 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| BHT | 128-37-0 | GO7875000 | 204-881-4 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| PHENOXYETHANOL | 122-99-6 | KM0350000 | 204-589-7 | NA | NA | NA | NF | NF | NF | 5 | NA | NA | |
| DMDM HYDANTOIN | 6440-58-0 | NA | 229-222-8 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| IODOPROPYNYL BUTYLCARBAMATE | 55406-53-6 | NA | 259-627-5 | NA | NA | NA | NF | NF | NF | NA | NA | NA | |

4. FIRST AID MEASURES

| | | | | | | | | | | | | | |
|----------------------|--|--|---|--------|---|--------------|---|------------------|---|----------------------|---|------|--|
| 4.1 | First Aid: | <p>INGESTION: DO NOT INDUCE VOMITING. Contact ChemTrec at +1 (703) 527-3887 or the nearest Poison Control Center +1 (800) 222-2222 or local emergency telephone number for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.</p> <p>EYES: If product gets in the eyes, flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek medical attention.</p> <p>SKIN: Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt medical attention. Do not wear contaminated clothing until after it has been properly cleaned.</p> <p>INHALATION: Remove victim to fresh air at once.</p> | | | | | | | | | | | |
| 4.2 | Medical Conditions Aggravated by Exposure: | <p>None reported by the manufacturer.</p> | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #0070C0; color: white;">HEALTH</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: #FF0000; color: white;">FLAMMABILITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="background-color: #FFA500;">PHYSICAL HAZARDS</td> <td style="text-align: center;">0</td> </tr> <tr> <td>PROTECTIVE EQUIPMENT</td> <td style="text-align: center;">A</td> </tr> <tr> <td>EYES</td> <td></td> </tr> </table> | HEALTH | 1 | FLAMMABILITY | 0 | PHYSICAL HAZARDS | 0 | PROTECTIVE EQUIPMENT | A | EYES | |
| HEALTH | 1 | | | | | | | | | | | | |
| FLAMMABILITY | 0 | | | | | | | | | | | | |
| PHYSICAL HAZARDS | 0 | | | | | | | | | | | | |
| PROTECTIVE EQUIPMENT | A | | | | | | | | | | | | |
| EYES | | | | | | | | | | | | | |

5. FIREFIGHTING MEASURES

| | | | | | |
|-----|--|---|-----------|------------------------------|-----------|
| 5.1 | Flashpoint & Method: > 70 °C (> 158 °F), estimated | | | | |
| 5.2 | Autoignition Temperature: NA | | | | |
| 5.3 | Flammability Limits: | Lower Explosive Limit (LEL): | NA | Upper Explosive Limit (UEL): | NA |
| 5.4 | Fire & Explosion Hazards: When involved in a fire, this product may decompose to form toxic gases (e.g., CO, CO₂, and NO_x), and silicon dioxide. |  | | | |
| 5.5 | Extinguishing Methods: Water Fog, Foam, Dry Chemical, CO₂ | | | | |
| 5.6 | Firefighting Procedures: As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand) and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. | | | | |

6. ACCIDENTAL RELEASE MEASURES

| | |
|-----|---|
| 6.1 | Spills: Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For <u>small spills</u> (e.g., < 1 gallon) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows). Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Remove any contaminated clothing and wash thoroughly before reuse. For <u>spills ≥ 1 gallon</u>, deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Transfer liquid to containers for recovery or disposal and solid absorbent material to separate containers for proper disposal. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water. |
|-----|---|

7. HANDLING & STORAGE INFORMATION

| | |
|-----|---|
| 7.1 | Work & Hygiene Practices: Do not eat, drink, or smoke while handling this product. |
| 7.2 | Storage & Handling: Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans). Keep away from excessive heat, open flames, sparks, and other possible sources of ignition. Keep away from incompatible materials listed in Section 10. |
| 7.3 | Special Precautions: Spilled material may present a slipping hazard if left unattended. Clean all spills promptly. |

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

| | | |
|-----|-------------------------------------|--|
| 8.1 | Ventilation & Engineering Controls: | Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station). Use with adequate ventilation (e.g., open doors and windows, local exhaust ventilation) when working with large quantities of product and provide adequate ventilation (e.g., local exhaust ventilation, fans). |
| 8.2 | Respiratory Protection: | No special respiratory protection is required under typical circumstances of use or handling. In instances where vapors or sprays of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia. |
| 8.3 | Eye Protection: | Avoid eye contact. Safety glasses with side shields should be used when handling large quantities (e.g., ≥ 1 gallon) of this product. |
| 8.4 | Hand Protection: | None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon), wear rubber or impervious plastic gloves. |
| 8.5 | Body Protection: | No apron required when handling small quantities. When handling large quantities (e.g., ≥ 1 gallon), eye wash stations should be available. |

9. PHYSICAL & CHEMICAL PROPERTIES

| | | |
|------|---------------------|------------------------|
| 9.1 | Density: | 1.00 @ 20 °C (68 °F) |
| 9.2 | Boiling Point: | NA |
| 9.3 | Melting Point: | NA |
| 9.4 | Evaporation Rate: | NA |
| 9.5 | Vapor Pressure: | NA |
| 9.6 | Molecular Weight: | NA |
| 9.7 | Appearance & Color: | Silver, viscous liquid |
| 9.8 | Odor Threshold: | Characteristic odor |
| 9.9 | Solubility: | Insoluble |
| 9.10 | pH | NA |
| 9.11 | Viscosity: | NA |
| 9.12 | Other Information: | NA |

10. STABILITY & REACTIVITY

| | | |
|------|-----------------------------------|---|
| 10.1 | Stability: | This product is stable. |
| 10.2 | Hazardous Decomposition Products: | Oxides of carbon (CO, CO₂) and nitrogen (NO_x), Silicon Dioxide (SiO₂) |
| 10.3 | Hazardous Polymerization: | Will not occur. |
| 10.4 | Conditions to Avoid: | Open flames, sparks and high heat. |
| 10.5 | Incompatible Substances: | None known. |



SAFETY DATA SHEET

Page 5 of 8
ILUB-003

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11. TOXICOLOGICAL INFORMATION

| | |
|------|---|
| 11.1 | Toxicity Data: The product has not been tested for specific toxicity data. |
| 11.2 | Acute Toxicity: See section 2.5 |
| 11.3 | Chronic Toxicity: See section 2.6 |
| 11.4 | Suspected Carcinogen: No |
| 11.5 | Reproductive Toxicity: This product is not reported to produce reproductive toxicity in humans. |
| | Mutagenicity: This product is not reported to produce mutagenic effects in humans. |
| | Embryotoxicity: This product is not reported to produce embryotoxic effects in humans. |
| | Teratogenicity: This product is not reported to produce teratogenic effects in humans. |
| | Reproductive Toxicity: This product is not reported to produce reproductive effects in humans. |
| 11.6 | Irritancy of Product: See Section 2.3 |
| 11.7 | Biological Exposure Indices: NE |
| 11.8 | Physician Recommendations: Treat symptomatically. |

12. ECOLOGICAL INFORMATION

| | |
|------|--|
| 12.1 | Environmental Stability: Specific data regarding the finished product is not available. Complete information regarding the product ingredients is not yet available. |
| 12.2 | Effects on Plants & Animals: Specific data regarding the finished product is not available. Complete information regarding the product ingredients is not yet available. |
| 12.3 | Effects on Aquatic Life: Specific data regarding the finished product is not available. Complete information regarding the product ingredients is not yet available. |

13. DISPOSAL CONSIDERATIONS

| | |
|------|---|
| 13.1 | Waste Disposal: Dispose of in accordance with federal, state and local regulations. |
| 13.2 | Special Considerations: NA |



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14. TRANSPORTATION INFORMATION







The basic description (proper shipping name, hazard class & division, ID Number, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

| | | |
|------|--|--|
| 14.1 | 49 CFR (GND): NOT REGULATED | |
| 14.2 | IATA (AIR): NOT REGULATED | |
| 14.3 | IMDG (OCN): NOT REGULATED | |
| 14.4 | TDGR (Canadian GND): NOT REGULATED | |
| 14.5 | ADR/RID (EU): NOT REGULATED | |
| 14.6 | SCT (Mexico): NOT REGULATED | |
| 14.7 | ADGR (AUS): NOT REGULATED | |

15. REGULATORY INFORMATION

| | | | | | | | | | | | | | | | |
|--|--|--|--------------------------------|-----------|--|-----------------------------|--------------------------------------|-----------------------|---|-----------------------------|--------------------------------|-----------------------------|--|-----------|--------------------------------------|
| 15.1 | SARA Reporting Requirements: NA | | | | | | | | | | | | | | |
| 15.2 | SARA Threshold Planning Quantity: NA | | | | | | | | | | | | | | |
| 15.3 | TSCA Inventory Status: All chemical substances of this product are listed on the TSCA inventory or are otherwise exempted from inventory status. | | | | | | | | | | | | | | |
| 15.4 | CERCLA Reportable Quantity (RO) : NA | | | | | | | | | | | | | | |
| 15.5 | Other Federal Requirements: This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics). | | | | | | | | | | | | | | |
| 15.6 | Other Canadian Regulations: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. | | | | | | | | | | | | | | |
| 15.7 | State Regulatory Information: No components of this product are listed on the California Proposition 65 lists. The following ingredients in this product are found on the following state criteria lists: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Florida Toxic Substances List:</td> <td>Mica, BHT</td> </tr> <tr> <td>Massachusetts Hazardous Substances List:</td> <td>Mica, Titanium Dioxide, BHT</td> </tr> <tr> <td>Minnesota Hazardous Substances List:</td> <td>Titanium Dioxide, BHT</td> </tr> <tr> <td>Pennsylvania Hazardous Substances List:</td> <td>Mica, titanium Dioxide, BHT</td> </tr> <tr> <td>New Jersey Right-to-Know List:</td> <td>Iodopropynyl Butylcarbamate</td> </tr> <tr> <td>Washington Permissible Exposures List:</td> <td>Mica, BHT</td> </tr> <tr> <td>Wisconsin Hazardous Substances List:</td> <td>Iodopropynyl Butylcarbamate</td> </tr> </table> | | Florida Toxic Substances List: | Mica, BHT | Massachusetts Hazardous Substances List: | Mica, Titanium Dioxide, BHT | Minnesota Hazardous Substances List: | Titanium Dioxide, BHT | Pennsylvania Hazardous Substances List: | Mica, titanium Dioxide, BHT | New Jersey Right-to-Know List: | Iodopropynyl Butylcarbamate | Washington Permissible Exposures List: | Mica, BHT | Wisconsin Hazardous Substances List: |
| Florida Toxic Substances List: | Mica, BHT | | | | | | | | | | | | | | |
| Massachusetts Hazardous Substances List: | Mica, Titanium Dioxide, BHT | | | | | | | | | | | | | | |
| Minnesota Hazardous Substances List: | Titanium Dioxide, BHT | | | | | | | | | | | | | | |
| Pennsylvania Hazardous Substances List: | Mica, titanium Dioxide, BHT | | | | | | | | | | | | | | |
| New Jersey Right-to-Know List: | Iodopropynyl Butylcarbamate | | | | | | | | | | | | | | |
| Washington Permissible Exposures List: | Mica, BHT | | | | | | | | | | | | | | |
| Wisconsin Hazardous Substances List: | Iodopropynyl Butylcarbamate | | | | | | | | | | | | | | |
| 15.8 | 67/548/EEC (European Union) and Other Requirements: The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC. Hazard Statements (H): None. Precautionary Statements (P): P102 – Keep out of reach of children. P270 - Do not eat, drink, or smoke when using this product. P305+P351+P338 – IF IN EYES - Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. | | | | | | | | | | | | | | |

16. OTHER INFORMATION

| | | | |
|---|---|---|---|
| 16.1 | <p>Other Information: For external use only. Use only as directed. Discontinue use immediately if irritation develops.</p> | | |
| 16.2 | <p>Terms & Definitions: See last page of this MSDS.</p> | | |
| 16.3 | <p>Disclaimer: This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & ILU Beauty or its affiliates' knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.</p> | | |
| 16.4 | <table border="0"> <tr> <td data-bbox="138 632 570 814"> <p>Prepared for: ILU Beauty 2132 113th Street Grand Prairie, TX 75050 USA Tel: +1 (877) 408-2234 info@ilubeauty.com</p> </td> <td data-bbox="570 632 1557 814" style="text-align: center;">  </td> </tr> </table> | <p>Prepared for: ILU Beauty 2132 113th Street Grand Prairie, TX 75050 USA Tel: +1 (877) 408-2234 info@ilubeauty.com</p> |  |
| <p>Prepared for: ILU Beauty 2132 113th Street Grand Prairie, TX 75050 USA Tel: +1 (877) 408-2234 info@ilubeauty.com</p> |  | | |
| 16.5 | <table border="0"> <tr> <td data-bbox="138 814 570 1039"> <p>Prepared by: ShipMate, Inc. P.O. Box 787 Sisters, OR 97759-0787 USA +1 (310) 370-3600 phone +1 (310) 370-5700 fax http://www.shipmate.com</p> </td> <td data-bbox="570 814 1557 1039" style="text-align: center;">  </td> </tr> </table> | <p>Prepared by: ShipMate, Inc. P.O. Box 787 Sisters, OR 97759-0787 USA +1 (310) 370-3600 phone +1 (310) 370-5700 fax http://www.shipmate.com</p> |  |
| <p>Prepared by: ShipMate, Inc. P.O. Box 787 Sisters, OR 97759-0787 USA +1 (310) 370-3600 phone +1 (310) 370-5700 fax http://www.shipmate.com</p> |  | | |

DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these that are commonly used include the following:

GENERAL INFORMATION:

| | |
|---------|----------------------------------|
| CAS No. | Chemical Abstract Service Number |
|---------|----------------------------------|

EXPOSURE LIMITS IN AIR:

| | |
|-------|---|
| ACGIH | American Conference on Governmental Industrial Hygienists |
| TLV | Threshold Limit Value |
| OSHA | U.S. Occupational Safety and Health Administration |
| PEL | Permissible Exposure Limit |
| IDLH | Immediately Dangerous to Life and Health |

FIRST AID MEASURES:

| | |
|-----|--|
| CPR | Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body. |
|-----|--|

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

| | |
|---|-----------------|
| 0 | Minimal Hazard |
| 1 | Slight Hazard |
| 2 | Moderate Hazard |
| 3 | Severe Hazard |
| 4 | Extreme Hazard |

| |
|---------------------|
| HEALTH |
| FLAMMABILITY |
| PHYSICAL HAZARDS |
| PERSONAL PROTECTION |

PERSONAL PROTECTION RATINGS:

| | |
|----------|--|
| A | |
| B | |
| C | |
| D | |
| E | |
| F | |

| | |
|----------|--|
| G | |
| H | |
| I | |
| J | |
| K | |
| X | Consult your supervisor or SOPs for special handling directions. |

| | | | |
|----------------------|-----------------------------------|------------------------------|---------------------------|
| Safety Glasses | Splash Goggles | Face Shield & Eye Protection | Gloves |
| Boots | Synthetic Apron | Full Suit | Dust Respirator |
| Full Face Respirator | Dust & Vapor Half-Mask Respirator | Full Face Respirator | Airline Hood/Mask or SCBA |

Note: the dotted circle indicates that this respiratory protective equipment is required for high concentrations or for large volume spills or releases of product.

OTHER STANDARD ABBREVIATIONS:

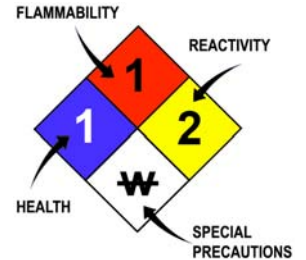
| | |
|------|------------------------------------|
| NA | Not Available |
| NR | No Results |
| NE | Not Established |
| ND | Not Determined |
| ML | Maximum Limit |
| SCBA | Self-Contained Breathing Apparatus |

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

| | |
|------------------------------------|---|
| FLAMMABILITY LIMITS IN AIR: | |
| Autoignition Temperature | Minimum temperature required to initiate combustion in air with no other source of ignition |
| LEL | Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source |
| UEL | Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source |

HAZARD RATINGS:

| | |
|---------|-----------------|
| 0 | Minimal Hazard |
| 1 | Slight Hazard |
| 2 | Moderate Hazard |
| 3 | Severe Hazard |
| 4 | Extreme Hazard |
| ACD | Acidic |
| ALK | Alkaline |
| COR | Corrosive |
| W | Use No Water |
| OX | Oxidizer |
| TREFOIL | Radioactive |



TOXICOLOGICAL INFORMATION:

| | |
|--|---|
| LD ₅₀ | Lethal Dose (solids & liquids) which kills 50% of the exposed animals |
| LC ₅₀ | Lethal concentration (gases) which kills 50% of the exposed animal |
| ppm | Concentration expressed in parts of material per million parts |
| TD ₀₁ | Lowest dose to cause a symptom |
| TCLo | Lowest concentration to cause a symptom |
| TD ₀₁ , LD ₀₁ , & LD ₀₁ or TC, TC ₀₁ , LC ₀₁ , & LC ₀₁ | Lowest dose (or concentration) to cause lethal or toxic effects |
| IARC | International Agency for Research on Cancer |
| NTP | National Toxicology Program |
| RTECS | Registry of Toxic Effects of Chemical Substances |
| BCF | Bioconcentration Factor |
| T _m | Median threshold limit |
| log K _{ow} or log K _{oc} | Coefficient of Oil/Water Distribution |

REGULATORY INFORMATION:

| | |
|-------|--|
| WHMIS | Canadian Workplace Hazardous Material Information System |
| DOT | U.S. Department of Transportation |
| TC | Transport Canada |
| EPA | U.S. Environmental Protection Agency |
| DSL | Canadian Domestic Substance List |
| NDSL | Canadian Non-Domestic Substance List |
| PSL | Canadian Priority Substances List |
| TSCA | U.S. Toxic Substance Control Act |
| EU | European Union (European Union Directive 67/548/EEC) |
| WGK | Wassergefährdungsklassen (German Water Hazard Class) |

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

| | | | | | | | |
|------------|-----------|-----------|-------|------------|------------|-----------|----------|
| | | | | | | | |
| A | B | C | D1 | D2 | D3 | E | F |
| Compressed | Flammable | Oxidizing | Toxic | Irritation | Infectious | Corrosive | Reactive |

EC (67/548/EEC) INFORMATION:

| | | | | | | | |
|-----------|-----------|-----------|---------|-----------|-------|----------|---------|
| | | | | | | | |
| C | E | F | N | O | T+ | Xi | Xn |
| Corrosive | Explosive | Flammable | Harmful | Oxidizing | Toxic | Irritant | Harmful |

CLP/GHS (1272/2008/EC) PICTOGRAMS:

| | | | | | | | | |
|-----------|-----------|----------|-------------|-----------|-------|--------------------|---------------|-------------|
| | | | | | | | | |
| GH501 | GH502 | GH503 | GH504 | GH505 | GH506 | GH507 | GH508 | GH509 |
| Explosive | Flammable | Oxidizer | Pressurized | Corrosive | Toxic | Harmful/Irritating | Health Hazard | Environment |