

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS &amp; 2001/58 EC Standards

MSDS Revision: 1.1

MSDS Revision Date: 11/01/2006

## 1. PRODUCT IDENTIFICATION

|     |                                                                                    |
|-----|------------------------------------------------------------------------------------|
| 1.1 | Product Name:<br><b>AVOPLEX MOISTURE REPLENISHING LOTION FRAGRANCE FREE</b>        |
| 1.2 | Chemical Name:<br><b>AQUEOUS LOTION</b>                                            |
| 1.3 | Synonyms:<br><b>AV761, AV764, AV765, AV766, AV768</b>                              |
| 1.4 | Trade Names:<br><b>NA</b>                                                          |
| 1.5 | Product Use:<br><b>PROFESSIONAL OR SUNDRY USE ONLY</b>                             |
| 1.6 | Distributor's Name:<br><b>OPI PRODUCTS, INC</b>                                    |
| 1.7 | Distributor's Address:<br><b>13034 SATICOY STREET, NO. HOLLYWOOD, CA 91605 USA</b> |
| 1.8 | Emergency Phone:<br><b>CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300</b>         |
| 1.9 | Business Phone:<br><b>+1 (818) 759-2400 / +1 (800) 341-9999</b>                    |

## 2. HAZARD IDENTIFICATION

|     |                                                                                                                                                                                                                                                                                                                                                                                                                      |             |    |             |     |            |     |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----|-------------|-----|------------|-----|
| 2.1 | Hazard Identification:<br><b>This product is not classified as a hazardous substance or as dangerous goods according to the classification criteria of NOHSC and ADG Code (Australia).</b>                                                                                                                                                                                                                           |             |    |             |     |            |     |
| 2.2 | Routes of Entry:                                                                                                                                                                                                                                                                                                                                                                                                     | Inhalation: | NO | Absorption: | YES | Ingestion: | YES |
| 2.3 | Effects of Exposure:<br><b>INGESTION:</b> If product is swallowed, may cause nausea, vomiting and/or diarrhea.<br><b>EYES:</b> Slightly irritating to the eyes.<br><b>SKIN:</b> May be irritating to skin in some sensitive individuals, especially after prolonged contact.<br><b>INHALATION:</b> Inhalation is unlikely; however, vapors of this product may be slightly irritating to some sensitive individuals. |             |    |             |     |            |     |
| 2.4 | Symptoms of Overexposure:<br><b>EYES:</b> Symptoms of overexposure may include redness, itching, and irritation.                                                                                                                                                                                                                                                                                                     |             |    |             |     |            |     |
| 2.5 | Acute Health Effects:<br><b>SKIN:</b> Redness, itching, and irritation of skin at the site of contact for some sensitive individuals.                                                                                                                                                                                                                                                                                |             |    |             |     |            |     |
| 2.6 | Chronic Health Effects:<br><b>INGESTION:</b> No chronic health effects are known, although symptoms and discomfort may occur for several days following overexposure following ingestion.                                                                                                                                                                                                                            |             |    |             |     |            |     |
| 2.7 | Target Organs:<br><b>Eyes, Skin</b>                                                                                                                                                                                                                                                                                                                                                                                  |             |    |             |     |            |     |

## 3. COMPOSITION &amp; INGREDIENT INFORMATION

| CHEMICAL NAME(S)        | CAS No.   | RTECS No. | EINECS No. | %      | EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> ) |      |            |      |       |
|-------------------------|-----------|-----------|------------|--------|---------------------------------------------|------|------------|------|-------|
|                         |           |           |            |        | ACGIH - ppm                                 |      | OSHA - ppm |      | OTHER |
|                         |           |           |            |        | TLV                                         | STEL | PEL        | STEL |       |
| WATER                   | 7732-18-5 | ZC0110000 | 231-791-2  | ≤ 90.0 | NA                                          | NA   | NA         | NA   | NA    |
| PROPRIETARY INGREDIENTS | NA        | NA        | NA         | NA     | NA                                          | NA   | NA         | NA   | NA    |

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 Z400.1-2004 format.

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS &amp; 2001/58 EC Standards

MSDS Revision: 1.1

MSDS Revision Date: 11/01/2006

## 4. FIRST AID MEASURES

|     |                    |                                                                                                                                                                                                                                                                                                                                                                |
|-----|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1 | First Aid:         |                                                                                                                                                                                                                                                                                                                                                                |
|     | <b>INGESTION:</b>  | If ingested, do not induce vomiting. Drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer plenty of water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time and amount of the substance that was swallowed. |
|     | <b>EYES:</b>       | If product is in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Open and close eyelid(s) to ensure thorough irrigation. If problem persists, consult a physician.                                                                                                                                                             |
|     | <b>SKIN:</b>       | If redness, dryness or other signs of irritation to the skin develop, wash affected skin areas with plenty of warm water and soap. If irritation persists, consult a physician.                                                                                                                                                                                |
|     | <b>INHALATION:</b> | Remove victim to fresh air at once.                                                                                                                                                                                                                                                                                                                            |

|     |                                                                  |                             |          |
|-----|------------------------------------------------------------------|-----------------------------|----------|
| 4.2 | Medical Conditions Aggravated by Exposure:<br><b>None known.</b> | <b>HEALTH</b>               | <b>1</b> |
|     |                                                                  | <b>FLAMMABILITY</b>         | <b>0</b> |
|     |                                                                  | <b>REACTIVITY</b>           | <b>0</b> |
|     |                                                                  | <b>PROTECTIVE EQUIPMENT</b> |          |
|     |                                                                  |                             |          |

## 5. FIREFIGHTING MEASURES

|     |                                                                                                                                                                                                       |                                                                                       |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 5.1 | Flashpoint & Method:<br><b>Non-flammable.</b>                                                                                                                                                         |                                                                                       |
| 5.2 | Autoignition Temperature:<br><b>NA</b>                                                                                                                                                                |                                                                                       |
| 5.3 | Flammability Limits:                                                                                                                                                                                  | Lower Explosive Limit (LEL): <b>NA</b> Upper Explosive Limit (UEL): <b>NA</b>         |
| 5.4 | Fire & Explosion Hazards:<br><b>This product is non-flammable. When exposed to high temperatures, may produce hazardous decomposition products such as carbon monoxide, carbon dioxide and smoke.</b> |  |
| 5.5 | Extinguishing Methods:<br><b>NA</b>                                                                                                                                                                   |                                                                                       |
| 5.6 | Firefighting Procedures:<br><b>As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand) and full protective gear.</b>                                            |                                                                                       |

## 6. ACCIDENTAL RELEASE MEASURES

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1 | Spills:<br><b>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For small spills (e.g., &lt;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. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse. For spills ≥ 1 gallon, deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Transfer product to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.</b> |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                  |                                                                                                                                                                                                                                                                                                                                 |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------|--|---|--------------|--|---|------------|--|---|----------------------|--|--|--|--|--|
| <div>O·P·I</div>                                                 |                                                                                                                                                                                                                                                                                                                                 | <div>MATERIAL SAFETY DATA SHEET</div>           |  | <div>Page 3 of 7</div> <div>MSDS-127</div>                                                                                                                                                                                                                                                          |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards |                                                                                                                                                                                                                                                                                                                                 | MSDS Revision: 1.1                              |  | MSDS Revision Date: 11/01/2006                                                                                                                                                                                                                                                                      |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| <div>7. HANDLING &amp; STORAGE INFORMATION</div>                 |                                                                                                                                                                                                                                                                                                                                 |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 7.1                                                              | Work & Hygiene Practices:<br><b>Avoid eye contact. Do not eat, drink or smoke when handling this product. Keep away from foodstuffs and beverages.</b>                                                                                                                                                                          |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 7.2                                                              | Storage & Handling:<br><b>Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans). Do not store in damaged or unmarked containers or storage devices. Keep containers securely closed when not in use.</b>                                                                               |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 7.3                                                              | Special Precautions:<br><b>Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.</b>                                                                                                                                                                                                    |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| <div>8. EXPOSURE CONTROLS &amp; PERSONAL PROTECTION</div>        |                                                                                                                                                                                                                                                                                                                                 |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 8.1                                                              | Ventilation & Engineering Controls:<br><b>General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use.</b>                                                                                                                                                                                 |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 8.2                                                              | Respiratory Protection:<br><b>None required.</b>                                                                                                                                                                                                                                                                                |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 8.3                                                              | Eye Protection:<br><b>None required under normal conditions of use. Avoid eye contact. May cause irritation in some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon), safety glasses with side shields should be used.</b>                                                                              |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 8.4                                                              | Hand Protection:<br><b>None required under normal conditions of use. May cause skin irritation in some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon), wear rubber or impervious plastic gloves.</b>                                                                                                  |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 8.5                                                              | Body Protection:<br><b>No apron required when handling small quantities. When handling large quantities (e.g., ≥ 1 gallon), eye wash stations and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.</b> |                                                 |  | <table border="1"> <tr> <td colspan="2">HEALTH</td> <td>1</td> </tr> <tr> <td colspan="2">FLAMMABILITY</td> <td>0</td> </tr> <tr> <td colspan="2">REACTIVITY</td> <td>0</td> </tr> <tr> <td colspan="2">PROTECTIVE EQUIPMENT</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> |  | HEALTH |  | 1 | FLAMMABILITY |  | 0 | REACTIVITY |  | 0 | PROTECTIVE EQUIPMENT |  |  |  |  |  |
| HEALTH                                                           |                                                                                                                                                                                                                                                                                                                                 | 1                                               |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| FLAMMABILITY                                                     |                                                                                                                                                                                                                                                                                                                                 | 0                                               |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| REACTIVITY                                                       |                                                                                                                                                                                                                                                                                                                                 | 0                                               |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| PROTECTIVE EQUIPMENT                                             |                                                                                                                                                                                                                                                                                                                                 |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
|                                                                  |                                                                                                                                                                                                                                                                                                                                 |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| <div>9. PHYSICAL &amp; CHEMICAL PROPERTIES</div>                 |                                                                                                                                                                                                                                                                                                                                 |                                                 |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 9.1                                                              | Density:                                                                                                                                                                                                                                                                                                                        | NA                                              |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 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:                                                                                                                                                                                                                                                                                                             | Semi-viscous, light colored cream with no odor. |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 9.8                                                              | Odor Threshold:                                                                                                                                                                                                                                                                                                                 | NA                                              |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 9.9                                                              | Solubility:                                                                                                                                                                                                                                                                                                                     | Partial                                         |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 9.10                                                             | pH                                                                                                                                                                                                                                                                                                                              | NA                                              |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 9.11                                                             | Viscosity:                                                                                                                                                                                                                                                                                                                      | NA                                              |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |
| 9.12                                                             | Other Information:                                                                                                                                                                                                                                                                                                              | NA                                              |  |                                                                                                                                                                                                                                                                                                     |  |        |  |   |              |  |   |            |  |   |                      |  |  |  |  |  |

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS &amp; 2001/58 EC Standards

MSDS Revision: 1.1

MSDS Revision Date: 11/01/2006

## 10. STABILITY &amp; REACTIVITY

10.1 Stability:  
**This product is stable.**

10.2 Hazardous Decomposition Products:  
**Oxides of carbon and nitrogen.**

10.3 Hazardous Polymerization:  
**Will not occur.**

10.4 Conditions to Avoid:  
**Open flames, sparks, high heat and direct sunlight.**

10.5 Incompatible Substances:  
**None known or reported.**

## 11. TOXICOLOGICAL INFORMATION

11.1 Toxicity Data:  
**The product has not been tested on animals to obtain toxicological data. There are toxicology data for the components of this product, which are found in the scientific literature. These data have not been presented in this document.**

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:  
**There is no specific data available for this product.**

12.2 Effects on Plants & Animals:  
**There is no specific data available for this product.**

12.3 Effects on Aquatic Life:  
**There is no specific data available for this product.**

## 13. DISPOSAL CONSIDERATIONS

13.1 Waste Disposal:  
**Dispose of in accordance with federal, state and local regulations.**

13.2 Special Considerations:  
**Packagings should be emptied as much as possible and after rinsing, sent for recycling.**

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS &amp; 2001/58 EC Standards

MSDS Revision: 1.1

MSDS Revision Date: 11/01/2006

**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 MEXICO (SCT):

**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 (RQ):

**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/NDL. None of the components of this product are listed on the Priorities Substances List.**

15.7 State Regulatory Information:

**None of the ingredients in this mixture are listed on any state criteria lists.**

15.8 67/548/EEC (European Union) Requirements:

**The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC.**

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS &amp; 2001/58 EC Standards

MSDS Revision: 1.1

MSDS Revision Date: 11/01/2006

## 16. OTHER INFORMATION

16.1 Other Information:

**Use only as directed. Discontinue use immediately if irritation develops.**

16.2 Terms &amp; Definitions:

**See last page of this MSDS.**

16.3 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 & OPI Products Inc.'s 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.**

16.4 Prepared for:

**OPI Products, Inc.**  
**13034 Satcoy Street**  
**No. Hollywood, CA 91605 USA**  
**+1 (818) 759-2400 phone**  
**+1 (818) 759-5770 fax**  
**<http://www.opi.com/>**

O·P·I

16.5 Prepared by:

**ShipMate, Inc.**  
**18436 Hawthorne Boulevard, Suite 201**  
**Torrance, CA 90504**  
**+1 (310) 370-3600 phone**  
**+1 (310) 370-5700 fax**  
**<http://www.shipmate.com>**



# MATERIAL SAFETY DATA SHEET

Page 7 of 7  
MSDS-127

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

MSDS Revision: 1.1

MSDS Revision Date: 11/01/2006

## 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:

|                |                                  |
|----------------|----------------------------------|
| <b>CAS No.</b> | Chemical Abstract Service Number |
|----------------|----------------------------------|

### EXPOSURE LIMITS IN AIR:

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

### FIRST AID MEASURES:

|            |                                                                                                                                                                                      |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CPR</b> | 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

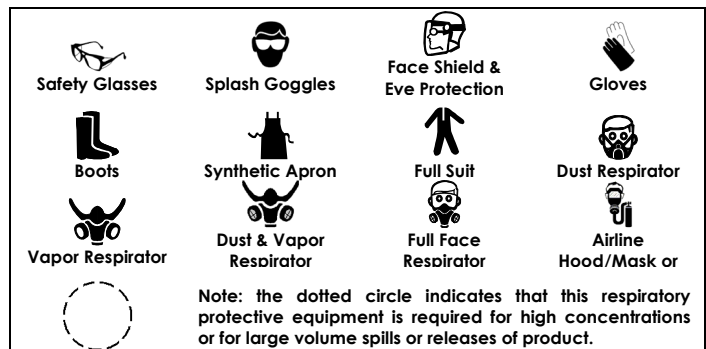
### HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

|          |                 |
|----------|-----------------|
| <b>0</b> | Minimal Hazard  |
| <b>1</b> | Slight Hazard   |
| <b>2</b> | Moderate Hazard |
| <b>3</b> | Severe Hazard   |
| <b>4</b> | Extreme Hazard  |



### PERSONAL PROTECTION RATINGS:

|          |  |          |                                                                    |
|----------|--|----------|--------------------------------------------------------------------|
| <b>A</b> |  | <b>G</b> |                                                                    |
| <b>B</b> |  | <b>H</b> |                                                                    |
| <b>C</b> |  | <b>I</b> |                                                                    |
| <b>D</b> |  | <b>J</b> |                                                                    |
| <b>E</b> |  | <b>K</b> |                                                                    |
| <b>F</b> |  | <b>X</b> | Consult your supervisor or S.O.P. for special handling directions. |



### FLAMMABILITY LIMITS IN AIR:

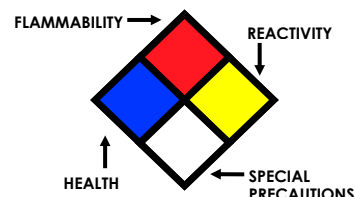
|                                 |                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|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

### OTHER STANDARD ABBREVIATIONS:

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

### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA HAZARD RATINGS:

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



### TOXICOLOGICAL INFORMATION:

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

### REGULATORY INFORMATION:

|              |                                                          |
|--------------|----------------------------------------------------------|
| <b>WHMIS</b> | Canadian Workplace Hazardous Material Information System |
| <b>DOT</b>   | U.S. Department of Transportation                        |
| <b>TC</b>    | Transport Canada                                         |
| <b>EPA</b>   | U.S. Environmental Protection Agency                     |
| <b>DSL</b>   | Canadian Domestic Substance List                         |
| <b>NDSL</b>  | Canadian Non-Domestic Substance List                     |
| <b>PSL</b>   | Canadian Priority Substances List                        |
| <b>TSCA</b>  | U.S. Toxic Substance Control Act                         |
| <b>EU</b>    | European Union (European Union Directive 67/548/EEC)     |
| <b>CPR</b>   | Canada's Controlled Product Regulations                  |

### EC INFORMATION:

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

### WHMIS INFORMATION:

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