



## 1. PRODUCT IDENTIFICATION

1.1	Product Name: <b>SCRUBFRESH™</b>
1.2	Chemical Name: <b>SOLVENT MIXTURE</b>
1.3	Synonyms: <b>SCRUBFRESH™, SCRUB FRESH</b>
1.4	Trade Names: <b>SCRUBFRESH™ - NAIL SURFACE SANITIZER</b>
1.5	Product Use: <b>PROFESSIONAL USE ONLY</b>
1.6	Distributor's Name: <b>CREATIVE NAIL DESIGN, INC.</b>
1.7	Distributor's Address: <b>1125 JOSHUA WAY, VISTA, CA USA 92081</b>
1.8	Emergency Phone: <b>CHEMTREC: +1 (800) 424-9300 / +1 (703) 527-3887</b>
1.9	Business Phone: <b>+1 (800) 833-NAIL (6245) / +1 (760) 599-2900</b>

## 2. HAZARD IDENTIFICATION

2.1	<p>Hazard Identification:  <b>This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC:1088 (2004) and ADG Code (Australia).</b>  <b>WARNING! Highly flammable liquid and vapor.</b>  <b>Hazard Statements (H):</b> H225 - Highly flammable liquid and vapor. H317 - May cause an allergic skin reaction. H320 - Causes eye irritation.  <b>Precautionary Statements (P):</b> P210 - Keep away from heat/sparks/open flames/hot surfaces - No Smoking. P233 - Keep container tightly closed. P243 - Take precautionary measures against static discharge. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P302+P352 - IF ON SKIN - Wash with soap and water. P305+P351+P338 - IF IN EYES - Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. P333+P313 - If skin irritation or a rash occurs - Get medical advice/attention. P321 - For specific first aid treatment (see section 4 of this Safety Data Sheet). P363 - Wash contaminated clothing before reuse. P403 + P235 - Store in a well-ventilated place. Keep container tightly closed. P501 - Dispose of contents/container through an authorized waste disposal facility.  <b>HazChem Code:</b> 2[Y]E  <b>Poison Schedule:</b> S5</p>				 		
2.2	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
2.3	<p>Effects of Exposure:  <b>INGESTION:</b> If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.  <b>EYES:</b> Vapor is discomforting to the eye. Splashes may cause severe eye irritation, possible corneal burns and eye damage. Symptoms of overexposure may include redness, itching, irritation and watering.  <b>SKIN:</b> May be irritating to skin, especially after prolonged or repeated contact.  <b>INHALATION:</b> Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing. Inhalation of concentrated vapors can cause central nervous system depression (e.g., drowsiness, dizziness, headaches, nausea). Odor may give some warning of exposure, but odor fatigue may occur.</p>						
2.4	<p>Symptoms of Overexposure:  <b>EYES:</b> Overexposure in eyes may cause severe eye irritation, possible corneal burns, and eye damage.  <b>SKIN:</b> Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. <b>The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.</b></p>						
2.5	<p>Acute Health Effects:  <b>EYES:</b> Severe irritation to eyes near affected areas.  <b>SKIN:</b> Mild to moderate irritation to skin near affected areas.  <b>INHALATION:</b> High concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.</p>						
2.6	<p>Chronic Health Effects:  <b>None known.</b></p>						
2.7	<p>Target Organs:  <b>Eyes, skin &amp; respiratory system.</b></p>						

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

MSDS Revision: 8.0

MSDS Revision Date: 04/01/2012

### 3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> )								
					ACGIH		NOHSC			OSHA			OTHER
					ppm		ppm			ppm			
TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH						
ACETONE	67-64-1	AL3150000	200-662-2	40-70	500	750	500	1000	NF	1000	NE	NE	
ISOPROPYL ALCOHOL	67-63-0	NT8050000	200-661-7	30-60	400	500	400	500	NF	400	500	NE	250 REL
BUTYL ACETATE	123-86-4	AF7350000	204-658-1	0.1-1	150	200	150	200	NF	150	200	NE	150 REL
CI 42090 (BLUE 1)	3844-45-9	BQ4725000	222-339-8	≤ 0.001	NE	NE	NF	NF	NF	NE	NE	NE	

### 4. FIRST AID MEASURES

4.1	<p>First Aid:</p> <p><b>INGESTION:</b> DO NOT INDUCE VOMITING. Contact ChemTrec at +1 (703) 527-3887 or the nearest Poison Control Center 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><b>EYES:</b> If product gets in the eyes, immediately flush with copious amounts of lukewarm water for at least 15 minutes. Open and close eyelid(s) to ensure thorough irrigation. Seek immediate medical attention.</p> <p><b>SKIN:</b> If irritation occurs &amp; product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with plenty of soap and water. Remove all contaminated clothing, including footwear and wash thoroughly before reuse. If irritation, redness or swelling persists, seek medical attention.</p> <p><b>INHALATION:</b> Remove victim to fresh air at once. Under extreme conditions, if breathing stops, perform artificial respiration. Seek immediate medical attention.</p>
4.2	<p>Medical Conditions Aggravated by Exposure:</p> <p>Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin, respiratory system).</p>

### 5. FIREFIGHTING MEASURES

5.1	Flashpoint & Method: <b>25 °F (-4 °C)</b>
5.2	Autoignition Temperature: <b>ND</b>
5.3	Flammability Limits: <b>LOWER EXPLOSIVE LIMIT (LEL): 2.0 %    UPPER EXPLOSIVE LIMIT (UEL): 12.8 %</b>
5.4	<p>Fire &amp; Explosion Hazards:</p> <p><b>This product is an extremely flammable liquid. When involved in a fire, this product may ignite and decompose to form toxic gases (e.g., CO, CO<sub>2</sub>, NO<sub>x</sub>).</b></p>
5.5	<p>Extinguishing Methods:</p> <p><b>Water, Foam, CO<sub>2</sub> or Dry Chemical, as authorized.</b></p>
5.6	<p>Firefighting Procedures:</p> <p><b>First responders should wear eye protection. Structural fire fighters must wear full protective equipment and MSHA/NIOSH-approved self-contained breathing apparatus. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. If necessary, rinse contaminated equipment with soapy water before returning to service.</b></p>



## 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 small spills (e.g., < 1 gallon (3.785 liters)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows) and secure all sources of ignition. 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  $\geq$  1 gallon (3.785 liters), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Use **ONLY** non-sparking tools for recovery and cleanup. Transfer liquid 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.

## 7. HANDLING & STORAGE INFORMATION

7.1 Work & Hygiene Practices:  
**Avoid prolonged contact with this material. Avoid breathing the vapors generated by this product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). Wash exposed skin thoroughly with plenty of soap & water after using this product. 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. Do not store in damaged or unmarked containers or storage devices. Keep containers securely closed when not in use. Open slowly on a level, stable surface. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. As a precaution against exposure to the eyes, nose, throat and face, this product should not be stored higher than waist level. Keep away from children at all times!**

7.3 Special Precautions:  
**None.**

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Ventilation & Engineering Controls:  
**Use with adequate ventilation (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station). Use in a chemical fume hood 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:  
**Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling this product. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants.**

8.4 Hand Protection:  
**None required under normal conditions of use. When handling large quantities (e.g.,  $\geq$  1 gallon (3.785 liters)), wear rubber or impervious plastic gloves.**

8.5 Body Protection: <b>No apron required when handling small quantities.</b> <b>When handling large quantities (e.g., <math>\geq</math> 1 gallon (3.785 liters)), 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>	<b>HEALTH</b>	<b>2</b>
	<b>FLAMMABILITY</b>	<b>3</b>
	<b>PHYSICAL HAZARDS</b>	<b>1</b>
	<b>PROTECTIVE EQUIPMENT</b>	<b>A</b>
	<b>EYES</b>	

## 9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Density:	0.99 (calc)
9.2	Boiling Point:	ND
9.3	Melting Point:	ND
9.4	Evaporation Rate:	<1 (n-BuAc=1)
9.5	Vapor Pressure:	ND
9.6	Molecular Weight:	NE
9.7	Appearance & Color:	Clear liquid with a ketone odor
9.8	Odor Threshold:	NE
9.9	Solubility:	Soluble
9.10	pH	NA
9.11	Viscosity:	NE
9.12	Other Information:	Vapor Density = 2.05 (air = 1)

## 10. STABILITY & REACTIVITY

10.1	Stability:	<b>Stable under normal conditions of use (see section 7).</b>
10.2	Hazardous Decomposition Products:	<b>Irritating vapors and toxic gases (e.g., carbon monoxide and carbon dioxide) when involved in fire.</b>
10.3	Hazardous Polymerization:	<b>Will not occur.</b>
10.4	Conditions to Avoid:	<b>Exposure or contact to extreme temperatures, incompatible chemicals, strong light sources, sparks, flame.</b>
10.5	Incompatible Substances:	<b>Strong oxidizers, peroxides or strong acids.</b>

## 11. TOXICOLOGICAL INFORMATION

11.1	Toxicity Data:	<b>This product has NOT been tested on animals to obtain toxicology data. There are toxicology data for the components of the product, which are found in scientific literature. These data have not been presented in this document.</b>	
11.2	Acute Toxicity:	<b>See section 2.5</b>	
11.3	Chronic Toxicity:	<b>See section 2.6</b>	
11.4	Suspected Carcinogen:	<b>This product contains ISOPROPANOL, which is not carcinogenic to humans but is listed as a Group 3 Carcinogen by IARC.</b>	
11.5	Reproductive Toxicity:	<b>NE</b>	
	Mutagenicity:	<b>This product is not reported to produce mutagenic effects in humans.</b>	
	Embryotoxicity:	<b>This product is not reported to produce embryotoxic effects in humans.</b>	
	Teratogenicity:	<b>This product is not reported to cause teratogenic effects in humans.</b>	
	Reproductive Toxicity:	<b>This product is not reported to cause reproductive effects in humans.</b>	
11.6	Irritancy of Product:	<b>See section 2.3</b>	
11.7	Biological Exposure Indices:	<b>NE</b>	
11.8	Physician Recommendations:	<b>Treat symptomatically.</b>	

## 12. ECOLOGICAL INFORMATION

12.1	Environmental Stability: <b>This product will slowly volatilize from soil. Components of this product will slowly decompose into organic compounds.</b>
12.2	Effects on Plants & Animals: <b>There is no specific data available for this product.</b>
12.3	Effects on Aquatic Life: <b>There is no specific data available for this product. Releases of large volumes may be harmful or fatal to overexposed aquatic life. Aquatic toxicity data for components of this product are available, but are not presented in this MSDS.</b>

## 13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal: <b>Dispose in accordance with local, state and Federal hazardous waste laws.</b>
13.2	Special Considerations: <b>U.S. EPA Characteristic Waste: D001 (ignitable)</b>

## 14. TRANSPORTATION INFORMATION

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

14.1	49 CFR (GND): <b>UN1993, FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone), 3, II, LTD QTY (≤ 1.0 L)</b>	
14.2	IATA (AIR): <b>CONSUMER COMMODITY, 9, ID8000 (≤ 0.5 L) UN1993, FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone), 3, II</b>	
14.3	IMDG (OCN): <b>UN1993, FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone), 3, II, LTD QTY (≤ 1.0 L)</b>	
14.4	TDGR (Canadian GND): <b>MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L) UN1993, FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone), 3, II</b>	
14.5	ADR/RID (EU): <b>UN1993 FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone), 3, II, LTD QTY (≤ 1.0 L)</b>	
14.6	SCT (MEXICO): <b>UN1993, LIQUIDOS INFLAMABLES, N.E.P. (isopropanol, acetona), 3, II, CANTIDAD LIMITADA (≤ 1.0 L)</b>	
14.7	ADGR (AUS): <b>UN1993 FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone), 3, II, LTD QTY (≤ 1.0 L)</b>	

## 15. REGULATORY INFORMATION

15.1	U.S. EPA SARA Title III Reporting Requirements: <b>This product contains ISOPROPANOL, a substance subject to SARA (313) reporting requirements.</b>														
15.2	U.S. EPA SARA Title III Threshold Planning Quantity (TPQ): <b>NA</b>														
15.3	U.S. TSCA Inventory Status: <b>All components of this product are listed in the TSCA Inventory or are exempt.</b>														
15.4	U.S. CERCLA Reportable Quantity (RQ): <b>Acetone: RQ 5000 lbs (2270 kg); Butyl Acetate: RQ 5000 lbs (2270 kg)</b>														
15.5	Other U.S. Federal Requirements: <b>This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).</b>														
15.6	Other Canadian Regulations: <b>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. Class B2 Flammable Liquid.</b>														
15.7	U.S. State Regulatory Information: <table border="0"> <tr> <td><b>New Jersey Right-to-Know List:</b></td> <td>Isopropanol</td> </tr> <tr> <td><b>Florida Toxic Substances List:</b></td> <td>Isopropanol, Butyl Acetate</td> </tr> <tr> <td><b>Massachusetts Right-to-Know List:</b></td> <td>Isopropanol, Acetone</td> </tr> <tr> <td><b>Minnesota Hazardous Substances List:</b></td> <td>Isopropanol, Acetone, Butyl Acetate</td> </tr> <tr> <td><b>Pennsylvania Right-to-Know List:</b></td> <td>Isopropanol, Acetone, Butyl Acetate</td> </tr> <tr> <td><b>Washington Permissible Exposures List:</b></td> <td>Isopropanol, Acetone, Butyl Acetate</td> </tr> <tr> <td><b>Wisconsin Hazardous Substances List:</b></td> <td>Acetone</td> </tr> </table> <b>None of the components of this mixture are listed in the California Proposition 65 Lists.</b>	<b>New Jersey Right-to-Know List:</b>	Isopropanol	<b>Florida Toxic Substances List:</b>	Isopropanol, Butyl Acetate	<b>Massachusetts Right-to-Know List:</b>	Isopropanol, Acetone	<b>Minnesota Hazardous Substances List:</b>	Isopropanol, Acetone, Butyl Acetate	<b>Pennsylvania Right-to-Know List:</b>	Isopropanol, Acetone, Butyl Acetate	<b>Washington Permissible Exposures List:</b>	Isopropanol, Acetone, Butyl Acetate	<b>Wisconsin Hazardous Substances List:</b>	Acetone
<b>New Jersey Right-to-Know List:</b>	Isopropanol														
<b>Florida Toxic Substances List:</b>	Isopropanol, Butyl Acetate														
<b>Massachusetts Right-to-Know List:</b>	Isopropanol, Acetone														
<b>Minnesota Hazardous Substances List:</b>	Isopropanol, Acetone, Butyl Acetate														
<b>Pennsylvania Right-to-Know List:</b>	Isopropanol, Acetone, Butyl Acetate														
<b>Washington Permissible Exposures List:</b>	Isopropanol, Acetone, Butyl Acetate														
<b>Wisconsin Hazardous Substances List:</b>	Acetone														

## 15. REGULATORY INFORMATION – cont'd

15.8 European Union 67/548/EEC and Australia NOHSC:2011 (2003) Requirements:  
**The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC.**  
**Acetone:** Flammable (F). **Risk Phrases (R):** 11-36-66-67 – Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness. **Safety Phrases (S):** 9-16-23-33 - Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. Do not breathe gas, fumes, vapor or spray. Take precautionary measures against static discharges.  
**Isopropanol:** Flammable (F). **Risk Phrases (R):** 11-36/37 – Highly flammable. Irritating to eyes and respiratory system. **Safety Phrases (S):** 2-7-16-24/25/26 – Keep out of the reach of children. Keep container tightly closed. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**WARNING!** Highly flammable liquid and vapor.  
**Hazard Statements (H):** H225 – Highly flammable liquid and vapor. H317 – May cause an allergic skin reaction. H320 – Causes eye irritation.  
**Precautionary Statements (P):** P210 - Keep away from heat/sparks/open flames/hot surfaces – No Smoking. P233 - Keep container tightly closed. P243 - Take precautionary measures against static discharge. P261 – Avoid breathing dust/fume/gas/mist/vapors/spray. P302+P352 – IF ON SKIN - Wash with soap and water. P305+P351+P338 – IF IN EYES - Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P333+P313 – If skin irritation or a rash occurs - Get medical advice/attention. P321 – For specific first aid treatment (see section 4 of this Safety Data Sheet). P363 – Wash contaminated clothing before reuse. P403 + P235 - Store in a well-ventilated place. Keep container tightly closed. P501 - Dispose of contents/container through an authorized waste disposal facility.  
**HazChem Code:** 2[Y]E  
**Poison Schedule:** S5



## 16. OTHER INFORMATION

16.1 Other Information:  
**WARNING:** Precisely follow directions and MSDS (available through your supplier) for use. **EXTREMELY FLAMMABLE!** Keep away from heat or flame. **Poisonous if swallowed! KEEP OUT OF REACH OF CHILDREN.** If redness or other signs of adverse reaction occur, **discontinue use immediately.**

16.2 Terms & Definitions:  
**Please 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 & Creative Nail Design'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:  
 Creative Nail Design, Inc.  
 A Division of Colomer U.S.A., Inc.  
 1125 Joshua Way  
 Vista, CA 92081 USA  
 Tel: +1 (800) 833-NAIL (6245)  
 Tel: +1 (760) 599-2900  
 Fax: +1 (760) 599-4005  
<http://www.cnd.com/>



16.5 Prepared by:  
 ShipMate, Inc.  
 PO Box 787  
 Sisters, OR 97759-0787 USA  
 Tel: +1 (310) 370-3600  
 Fax: +1 (310) 370-5700  
 e-mail: [shipmate@shipmate.com](mailto:shipmate@shipmate.com)



Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58/EC & 1272/2008/EC Standards | MSDS Revision: 8.0 | MSDS Revision Date: 04/01/2012

## 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
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### 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.
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### 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:

<b>A</b>	
<b>B</b>	
<b>C</b>	
<b>D</b>	
<b>E</b>	
<b>F</b>	

<b>G</b>	
<b>H</b>	
<b>I</b>	
<b>J</b>	
<b>K</b>	
<b>X</b>	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:

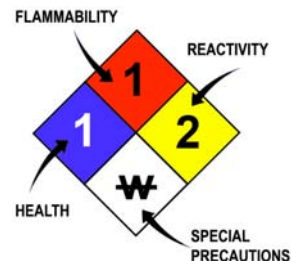
NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

#### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

<b>FLAMMABILITY LIMITS IN AIR:</b>	
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 <sub>50</sub>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC <sub>50</sub>	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD <sub>01</sub>	Lowest dose to cause a symptom
TCLO	Lowest concentration to cause a symptom
TD <sub>01</sub> , LD <sub>01</sub> , & LD <sub>01</sub> or TC, TC <sub>01</sub> , LC <sub>01</sub> , & LC <sub>01</sub>	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
TL <sub>m</sub>	Median threshold limit
log K <sub>ow</sub> or log K <sub>oc</sub>	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