



MATERIAL SAFETY DATA SHEET

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RSE-0001

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

MSDS Revision: 1.0

MSDS Revision Date: 12/15/2007

1. PRODUCT IDENTIFICATION

CHEMICAL RESPONSE CARD: 21

1.1	Product Name:	TYRE-GRIP	RESPONSE TEAM PPE:					
1.2	Chemical Name:	Aerosol	WHMIS:					
1.3	Synonyms:	None reported by the manufacturer	HEALTH:					2
1.4	Trade Names:	Tyre-Grip	FLAMMABILITY:					4
1.5	Product Use:	NA	REACTIVITY:					0
1.6	Manufacturer's Name:	Roncon Smith Enterprises, Inc.	PERSONAL PROTECTION:					B
1.7	Manufacturer's Address:	17101 South Central Ave, Suite 1J, Carson, CA 90746 USA	CHEMTREC +1 (800) 424-9300/+1 (703) 527-3887					
1.8	Business Phone:	+1 (310) 632-4395						
1.9	Emergency Phone:							
1.10	Other Product Names:							

2. HAZARD IDENTIFICATION

2.1	Hazard Identification: This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of [NOHSC:1088(1999)] and ADG Code (Australia). Flammable aerosol.						
2.2	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
2.3	Effects of Exposure: EYES: May cause irritation, redness and tearing. Vapors may be irritating to the eyes. SKIN: May cause irritation, defatting, drying and cracking of skin. Prolonged and repeated contact may lead to dermatitis. INGESTION: May cause a burning sensation of the mouth and throat, abdominal pain, gastrointestinal irritation, nausea, vomiting and diarrhea. May also cause kidney damage, cardiac arrhythmia and Central Nervous System (CNS) effects (see inhalation). Aspiration of material into the lungs may cause chemical pneumonitis, which can be fatal. Can be fatal if inhaled or ingested. INHALATION: Vapors may be irritating to nose, throat and respiratory tract. Excessive inhalation of vapors may cause kidney damage, cardiac arrhythmia and Central Nervous System effects including dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.						
2.4	Symptoms of Exposure: EYES: Irritation, redness, swelling and tearing. SKIN: Irritation, defatting, drying and cracking of skin. INGESTION: Burning sensation of the mouth and throat, abdominal pain, gastrointestinal irritation, nausea, vomiting and diarrhea. INHALATION: Irritation to nose, throat and respiratory tract, dizziness, coughing, wheezing, weakness, fatigue, nausea, headache and possible unconsciousness.						
2.5	Acute Health Effects: EYES: May cause irritation, redness and tearing. Vapors may be irritating to the eyes. Risk of conjunctivitis. SKIN: May cause irritation, defatting, drying and cracking of skin. Prolonged and repeated contact may lead to dermatitis. INGESTION: May cause a burning sensation of the mouth and throat, abdominal pain, gastrointestinal irritation, nausea, vomiting and diarrhea. May also cause kidney damage, cardiac arrhythmia and Central Nervous System effects (see inhalation). Aspiration of material into the lungs may cause chemical pneumonitis, which can be fatal. Can be fatal if inhaled or ingested. INHALATION: Vapors may be irritating to nose, throat and respiratory tract. Excessive inhalation of vapors may cause kidney damage, cardiac arrhythmia and Central Nervous System effects including dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.						
2.6	Chronic Health Effects: Prolonged or repeated skin contact may lead to dermatitis.						
2.7	Target Organs: Eyes, skin and respiratory system.						

NA = Not Available; ND = Not Determined; NE = Not Established; NF = Not Found; NF = Not Found; NF = Not Found; NF = Not Found; NF = Not Found; NF = Not Found; NF = Not Found; 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.



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3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)								
					ACGIH		NOHSC			OSHA			OTHER
					ppm		ppm			ppm			
TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	TLV	STEL	IDLH						
LIQUEFIED PETROLEUM GAS	68476-86-8	NA	270-705-8	≤ 45.0	NA	NA	800	NF	NF	NA	NA	NA	ASPH
ISOPROPANOL	67-63-0	NT8050000	200-661-7	≤ 45.0	400	500	400	500	NF	400	500	NA	
ROSIN	8050-09-7	VL0480000	232-475-7	≤ 30.0	NA	NA	NF	NF	NF	NA	NA	NA	
PROPRIETARY ROSIN	NA	NA	NA	≤ 30.0	NA	NA	NF	NF	NF	NA	NA	NA	
D-LIMONENE	5989-27-5	GW6360000	227-813-5	≤ 10.0	NA	NA	NF	NF	NF	NA	NA	NA	
TRIETHANOLAMINE	102-71-6	KL9275000	203-049-8	≤ 1.0	NA	NA	(5)	NF	NF	NA	NA	NA	

4. FIRST AID MEASURES

4.1	First Aid: EYES: Immediately flush eyes with plenty of running water for at least 15 minutes, lifting upper and lower lids, occasionally. If irritation persists, repeat flushing. Get medical attention. SKIN: Wash thoroughly with soap and water. If irritation persists, seek medical attention. Remove contaminated clothing and wash before reuse. INGESTION: Do not include vomiting. Have conscious person rise out mouth with water, then drink 1 or 2 glasses of water. Never give an unconscious person anything to ingest. If vomiting spontaneously occurs, have victim lean forward with head down to avoid breathing in the vomitus (vapors from vomit) into the lungs. Rinse out mouth and administer more water. Guard against aspiration into the lungs. Aspiration of material into lungs due to vomiting may cause chemical pneumonitis which can be fatal. Get immediate medical attention. INHALATION: Remove affected person to fresh air. If breathing is difficult, administer oxygen. If breathing stops give artificial respiration. Keep person warm, quiet and get medical attention.										
4.2	Medical Conditions Aggravated by Exposure: Pre-existing respiratory conditions, dermatitis and other skin disorders, central nervous system disorders, and other disorders involving "target organs" (See Section 2.7) may be aggravated by exposure to this product.										
<table border="1"> <tr> <td>HEALTH</td> <td>2</td> </tr> <tr> <td>FLAMMABILITY</td> <td>4</td> </tr> <tr> <td>REACTIVITY</td> <td>0</td> </tr> <tr> <td>PROTECTIVE EQUIPMENT</td> <td>B</td> </tr> <tr> <td>EYES</td> <td>SKIN</td> </tr> </table>		HEALTH	2	FLAMMABILITY	4	REACTIVITY	0	PROTECTIVE EQUIPMENT	B	EYES	SKIN
HEALTH	2										
FLAMMABILITY	4										
REACTIVITY	0										
PROTECTIVE EQUIPMENT	B										
EYES	SKIN										

5. FIREFIGHTING MEASURES

5.1	Flashpoint & Method: Liquid Mixture: -7.0 °C (21.6 °F), COC Propellant: -104°C (-155°F), COC
5.2	Autoignition Temperature: NA
5.3	Flammability Limits: Lower Explosive Limit (LEL): ND Upper Explosive Limit (UEL): ND
5.4	Fire & Explosion Hazards: This product is an extremely flammable aerosol. Containers of this product may explode in heat of fire. This product also contains known skin sensitizers, which can pose a contact hazard to fire-fighters. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point. Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and trace oxides of sulfur and nitrogen. Also, depending upon the conditions of use, low concentrations of hydrogen sulfide can be released.
5.5	Extinguishing Methods: Dry chemical, foam, carbon dioxide, and water fog.
5.6	Firefighting Procedures: Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Avoid spraying water directly into storage containers because of danger of boilover. 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.





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6. ACCIDENTAL RELEASE MEASURES

6.1	<p>Spills:</p> <p>Eliminate all possible sources of ignition.</p> <p>Small Spills: A release of a single container or several containers presents a minimal hazard. Allow containers to vent and remove container for appropriate disposal. If any liquid remains, wash contaminated area with soap and water, absorb with paper towels, and rinse with water.</p> <p>Large Spills: If a large quantity of containers of this product is involved, evacuate immediate area. Trained personnel using pre-planned procedures should respond to uncontrolled releases. Proper protective equipment should be used. If a large quantity of product is involved, the minimum Personal Protective Equipment (PPE) should be Level B: Self-Contained Breathing Apparatus. Allow the gas to dissipate. Monitor the surrounding area for the level of oxygen and level of combustible vapors. The atmosphere must have at least 19.5 percent oxygen before personnel can be allowed in the area without Self-Contained Breathing Apparatus. Monitor area and confirm levels are below exposure limits given in Section 8 (Exposure Controls-Personal Protection), if applicable, before non-response personnel are allowed into the spill area. Clean up spilled product using appropriate absorbent material (e.g., sand, diatomaceous earth, peat).</p> <p>Mitigation and Disposal: Place all spill residue in an appropriate container and seal. Decontaminate the area thoroughly. If necessary, discard all stained response equipment or rinse with soapy water before returning such equipment to service. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, provincial, State, and local regulations (see Section 13). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements, if necessary. Dispose of through an authorized waste transporter and treatment/storage/disposal facility (TSDF).</p>
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7. HANDLING & STORAGE INFORMATION

7.1	<p>Work & Hygiene Practices:</p> <p>Wear gloves, glasses and self-contained mask. Warn about risk of vapor inhalation. Wash hands with water and soap immediately after handling then rinse in case of contact. When using, do not eat, drink or smoke.</p>
7.2	<p>Storage & Handling:</p> <p>Use and keep away from flame, heat sources and functioning electrical devices. Use in a well ventilated area. Store in original packaging. Keep out of reach of children. Do not store in temperatures above 50°C. Keep out of direct sunlight.</p>
7.3	<p>Special Precautions:</p> <p>Do not spray on a naked flame or any incandescent material. When using do not smoke. Avoid breathing vapors or spray mists. Avoid any contact.</p>

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	<p>Ventilation & Engineering Controls:</p> <p>Avoid breathing the vapors generated by this product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans. Do not eat, drink, or smoke while handling this product. Ensure eyewash/safety shower stations are available near areas where this product is used.</p> <p>Use a non-sparking, grounded, explosion-proof ventilation system separate from other exhaust ventilation systems. Exhaust directly to ambient air, taking necessary precautions for environmental protection. Supply sufficient replacement air to make up for air removed by exhaust systems.</p>
8.2	<p>Respiratory Protection:</p> <p>Maintain airborne contaminant concentrations below exposure limits listed above if applicable. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134) and equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, European Standard EN 529:2005 and Respiratory Protection Standards of EU member states, or Australia. Oxygen levels below 19.5% are considered by U.S. OSHA to be Immediately Dangerous to Life or Health (IDLH). In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).</p>
8.3	<p>Eye Protection:</p> <p>Splash goggles or safety glasses. If necessary, refer to U.S. OSHA 29 CFR 1910.133, the Canadian CSA Standard Z94.3-M1982, <i>Industrial Eye and Face Protectors</i>, or the requirements of European Standard CR 13464:1999 or equivalent Australian standards for additional information.</p>
8.4	<p>Hand Protection:</p> <p>Wear butyl rubber, Teflon™, Barricade™, Chemrel™, or similar gloves for routine industrial use. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this MSDS. If necessary, refer to U.S. OSHA 29 CFR 1910.138, appropriate Standards of Canada, or European Standard CEN/TR 15419:2006 or equivalent Australian standards.</p>
8.5	<p>Body Protection:</p> <p>When chemical contact is possible, use splash apron, work uniform, and shoes or coverlets to prevent skin contact. Full-body chemical protective clothing is recommended for emergency response procedures. If necessary, refer to appropriate Standards of Canada or the European Standard CEN/TR 15419:2006, for further information. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-M1984, <i>Protective Footwear</i>.</p>



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9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Density:	0.9305
9.2	Boiling Point:	ND
9.3	Melting Point:	ND
9.4	Evaporation Rate:	ND
9.5	Vapor Pressure:	ND
9.6	Molecular Weight:	NA
9.7	Appearance & Color:	Aerosol, Clear Liquid
9.8	Odor Threshold:	Citrus odor
9.9	Solubility:	ND
9.10	pH	ND
9.11	Viscosity:	ND
9.12	Other Information:	NA

10. STABILITY & REACTIVITY

10.1	Stability:	This product is chemically stable under normal conditions of storage and use.
10.2	Hazardous Decomposition Products:	Fumes, smoke, carbon monoxide, and trace hydrocarbons.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Do not expose this product to temperatures above 140°C.
10.5	Incompatible Substances:	Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

11.1	Toxicity Data:	This product was not tested on animals; however, toxicity data is available for the following components of this mixture: d-Limonene - LD₅₀ (Oral-Rat) 4400 mg/kg; Isopropanol - LD₅₀ (oral, rat) = 5045 mg/kg; Triethanolamine - LD₅₀ (oral, rabbit) = 2200 mg/kg.
11.2	Acute Toxicity:	This product can cause adverse central nervous system by inhalation, ingestion and skin absorption. Eye contact can cause moderate irritation. Inhalation may cause irritation to the respiratory system.
11.3	Chronic Toxicity:	Dermatitis (inflammation and redness of the skin) may occur after chronic, low-level skin contact. This product contains known skin sensitizers and suspect respiratory sensitizers.
11.4	Suspected Carcinogen:	No. The following components of this product are listed by agencies that monitor carcinogenicity: d-Limonene, Isopropanol, Triethanolamine - IARC-3 (Not Classifiable as to Carcinogenicity to Humans); Isopropanol, Triethanolamine - ACGIH-TLV-A4-C (Not Classifiable as a Human Carcinogen)
11.5	Reproductive Toxicity:	
	Mutagenicity:	This product is not reported to cause mutagenic effects in humans.
	Embryotoxicity:	A component in this product (isopropanol) is reported to cause embryotoxic effects in humans, based on animal test data.
	Teratogenicity:	This product is not reported to cause teratogenic effects in humans.
	Reproductive Toxicity:	This product is not reported to cause reproductive harm in humans.
11.6	Irritancy of Product:	See section 2.3
11.7	Biological Exposure Indices:	NA
11.8	Physician Recommendations:	Treat symptomatically.



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12. ECOLOGICAL INFORMATION


12.1	<p>Environmental Stability:</p> <p>The K_{oc} of Isopropanol is estimated at 25, using a measured $\log K_{ow}$ of 0.05 and a regression-derived equation. According to a classification scheme, this estimated K_{oc} value suggests that Isopropanol is expected to have very high mobility in soil.</p> <p>Based on the water solubility of (D)-limonene, 13.8 mg/L at 25°C and an estimated \log octanol/water partition coefficient of 4.232, soil adsorption coefficients of 1030 and 4780, respectively, can be calculated using appropriate regression equations. These values indicate that (D)-limonene is expected to display slight to low mobility in soil.</p> <p>The K_{oc} of Triethanolamine is estimated at 7, using a $\log K_{ow}$ of -1.00 and a regression-derived equation. According to a classification scheme, this estimated K_{oc} value suggests that Triethanolamine is expected to have very high mobility in soil. The pK_a of Triethanolamine is 7.76, indicating that this compound will primarily exist in cation form in the environment and cations generally adsorb to organic carbon and clay more strongly than their neutral counterparts.</p> <p>This product has not been tested for persistence and biodegradability.</p>
12.2	<p>Effect on Plants & Animals:</p> <p>This product has not been tested for bio-accumulation.</p>
12.3	<p>Effect on Aquatic Life:</p> <p>This product has not been tested for bio-accumulation. All releases to the environment must be avoided. The following are data available for the following components of this mixture: d-Limonene - LC_{50} (daphnia magna water flea) 48 hours = 0.577 mg/L; Isopropanol - LC_{50} (daphnia magna) 24 hours = 9,500 mg/L; Triethanolamine - LC_0 (Daphnia magna) = 2,500 mg/L</p>

13. DISPOSAL CONSIDERATIONS

13.1	<p>Waste Disposal:</p> <p>It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per applicable laws and regulations of the state, province, or region in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate Federal, State, Provincial and local regulations. This product, if unaltered by use, may be disposed of by treatment or incineration at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.</p>
13.2	<p>Special Considerations:</p> <p>U.S. EPA Characteristic Waste (Flammable) – D001; European Waste Codes: 14 06 03; 08 Waste organic solvents, refrigerants, and foam/aerosol propellants, other solvents and solvent mixtures.</p>

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, SCT, ADGR and the CTDGR.

14.1	49 CFR (GND): CONSUMER COMMODITY, ORM-D	
14.2	IATA (AIR): ID8000, CONSUMER COMMODITY, 9 (x ≤ 0.5 L) UN1950, AEROSOLS, 2.1, LTD QTY (0.5 L < x ≤ 1.0 L)	
14.3	IMDG (OCN): UN1950, AEROSOLS, 2.1, LTD QTY (x ≤ 1.0 L)	
14.4	TDGR (Canadian GND): MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (x ≤ 1.0 L)	
14.5	ADR/RID (EU): UN1950, AEROSOLS, 2.1, ADR, LTD QTY (x ≤ 1.0 L)	
14.6	MEXICO (SCT): UN1950, AEROSOLS, 2.1, CANTIDAD LIMITADA (x ≤ 1.0 L)	
14.7	ADGR (AU): UN1950, AEROSOLS, 2.1, LTD QTY (x ≤ 1.0 L), HAZCHEM CODE: 2[Y]E	



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15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements: This product does not contain any substances subject to SARA reporting requirements.	
15.2	SARA Threshold Planning Quantity: NA	
15.3	TSCA Inventory Status: The components of this product are listed on the TSCA inventory.	
15.4	CERCLA Reportable Quantity (RQ): NA	
15.5	Other Federal Requirements: NA	
15.6	Other Canadian Regulations All chemical substances of this product are listed on the CEPA DSL/NDSL or are exempt from list requirements. 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.	
15.7	State Regulatory Information: NA	
15.8	67/548/EEC (European Union) Requirements: The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: <u>Isopropanol</u>: Flammable, Harmful (F, Xi). R: 10-36/37/38 – Flammable. Irritating to eyes, respiratory system and skin. S: 2-9-16-33 - Keep out of reach of children. Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.	

16. OTHER INFORMATION

16.1	Other Information: NA	
16.2	Terms & Definitions: See last page of this Material Safety Data Sheet.	
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 & Roncon Smith Enterprises' knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is 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: Roncon Smith Enterprises, Inc. 17101 South Central Ave, Suite 1J Carson, CA 90746 USA Phone: +1 (310) 632-4395 Fax: +1 (360) 248-8347 e-mail: Ronald.smith@tyre-grip.com	
16.5	Prepared by: ShipMate, Inc. Pacific Northwest Office P.O. Box 787 Sisters, OR 90504 USA Phone: +1 (310) 370-3600 Fax: +1 (310) 370-5700 e-mail: shipmate@shipmate.com	



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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

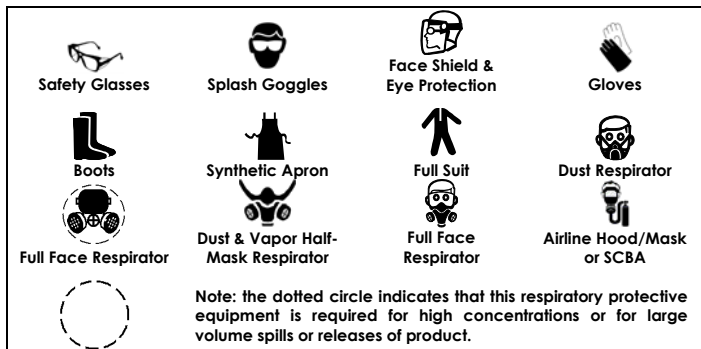
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:

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



OTHER STANDARD ABBREVIATIONS:

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

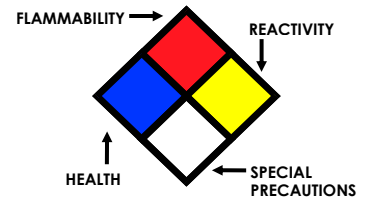
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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



TOXICOLOGICAL INFORMATION:

LD₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC₅₀	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD₁₀	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD₁₀, LD₁₀, & LD₀ or TC, TC₀, LC₁₀, & LC₀	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_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)

EC INFORMATION:

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