




<b>PAUL MITCHELL</b>		<b>SAFETY DATA SHEET</b>				Page 1 of 6 <b>PM-080</b>							
Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards				SDS Revision: 1.0		SDS Revision Date: 1/8/2016							
<b>1. PRODUCT &amp; COMPANY IDENTIFICATION</b>													
1.1	Product Name:	<b>PAUL MITCHELL – TEA TREE OIL</b>											
1.2	Chemical Name:	Essential Oil											
1.3	Synonyms:	JPMS – Tea Tree Oil											
1.4	Trade Names:	Paul Mitchell – Tea Tree Oil											
1.5	Product Uses & Restrictions:	Professional or Sundry Use Only											
1.6	Distributor's Name:	John Paul Mitchell Systems											
1.7	Distributor's Address:	20705 Centre Pointe Parkway, Santa Clarita, CA 91350 USA											
1.8	Emergency Phone:	<b>CHEMTEL: +1 (800) 255-3924</b>											
1.9	Business Phone / Fax:	+1 (661) 298-0400											
<b>2. HAZARDS IDENTIFICATION</b>													
2.1	Hazard Identification:	<p>This product is classified as a HAZARDOUS SUBSTANCE but NOT as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia).</p> <p><b>WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED. CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.</b></p> <p><u>Classification:</u> Flam. Liq. 2; Acute Tox. 4; Skin Irrit. 2; Skin Sens. 1, Eye Irrit. 2</p> <p><u>Hazard Statements (H):</u> H226 – Flammable liquid and vapor. H302 – Harmful if swallowed. H315 – Causes skin irritation. H317 – May cause an allergic skin reaction. H319 – Causes serious eye irritation.</p> <p><u>Precautionary Statements (P):</u> P210 – Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P243 – Take precautionary measures against static discharge. P261 – Avoid breathing fume/mist/vapours/spray. P264 – Wash hands and exposed skins areas with soap and warm water thoroughly after handling. P270 – Do not eat, drink or smoke when using this product. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves and eye/face protection. P301+P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P302+P352 – IF ON SKIN: Wash with plenty of soap and water. P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 – IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing. P321 – Specific treatment (see Section 4 of this Safety Data Sheet. P330 – Rinse mouth. P333+P313 – If skin irritation or rash occurs: Get medical advice/attention. P337+P313 – If eye irritation persists: Get medical advice/attention. P362 – Take off contaminated clothing and wash before reuse. P370+P378 – In case of fire: Use water, foam, CO<sub>2</sub>, or dry chemical for extinction. P403+P235 – Store in a well-ventilated place. Keep cool. P405 – Store locked up. P501 – Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF).</p>						 					
<b>3. COMPOSITION &amp; INGREDIENT INFORMATION</b>													
		EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> )											
				ACGIH			NOHSC		OSHA				
				ppm			ppm		ppm				
				TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	OTHER	
<b>CHEMICAL NAME(S)</b>		<b>CAS No.</b>	<b>RTECS No.</b>	<b>EINECS No.</b>	<b>%</b>	NA	NA	NF	NF	NF	NA	NA	NA
MELALEUCA ALTERNIFOLIA (TEA TREE) OIL		68647-73-4	NA	285-377-1	60-100	NA	NA	NF	NF	NF	NA	NA	NA
		Flam. Liq. 2; Acute Tox. 4; Skin Irrit. 2; Skin Sens. 1, Eye Irrit. 2; H226, H302, H315, H317, H319											
<b>4. FIRST AID MEASURES</b>													
4.1	First Aid:	<p><u>Ingestion:</u> DO NOT INDUCE VOMITING. Contact ChemTel at +1 (800) 255-3924 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><u>Eyes:</u> If irritation or redness due to vapors develops, move victim away from exposure and into fresh air. If material gets into the eyes, flush eyes immediately with clean water for at least 15 minutes. If available, use eye-cups or eye wash fountain. If symptoms persist, get medical attention.</p> <p><u>Skin:</u> Remove contaminated clothing and wash affected areas with soap and water. If discomfort persists and/or the skin reaction worsens, contact a physician immediately. In cases where discomfort persists and/or medical attention is sought, do not use hair color products again until the specific nature of the skin reaction and the causative agent has been identified by a dermatologist, and appropriate medical advice provided. Do not wear contaminated clothing until after it has been properly cleaned.</p> <p><u>Inhalation:</u> If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, get medical attention. If victim is not breathing immediately begin artificial respiration. Get medical attention.</p>											

## 4. FIRST AID MEASURES – cont'd

4.2	Effects of Exposure:	<p><u>Ingestion:</u> If product is swallowed may cause nausea, vomiting and/or diarrhea.</p> <p><u>Eyes:</u> Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, stinging, irritation and watering.</p> <p><u>Skin:</u> May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) or sensitization in some sensitive individuals.</p> <p><u>Inhalation:</u> May cause mild, transient respiratory irritation. Avoid prolonged contact with concentrated vapors or mists.</p>											
4.3	Symptoms of Overexposure:	<p><u>Ingestion:</u> Nausea, intestinal discomfort, vomiting and/or diarrhea.</p> <p><u>Eyes:</u> Overexposure in eyes may cause redness, itching and watering.</p> <p><u>Skin:</u> Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p>											
4.4	Acute Health Effects:	Irritation to eyes. Symptoms of overexposure may include redness, itching, stinging, irritation and watering. Moderate irritation to skin near affected areas.											
4.5	Chronic Health Effects:	No chronic health effects are expected to occur from a single accidental ingestion.											
4.6	Target Organs:	Eyes, skin.											
4.7	Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes and skin).	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #0000FF; color: white;"><b>HEALTH</b></td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td style="background-color: #FF0000; color: white;"><b>FLAMMABILITY</b></td> <td style="text-align: center;"><b>2</b></td> </tr> <tr> <td style="background-color: #FFA500; color: white;"><b>PHYSICAL HAZARDS</b></td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td style="background-color: #000000; color: white;"><b>PROTECTIVE EQUIPMENT</b></td> <td style="text-align: center;"><b>B</b></td> </tr> <tr> <td style="background-color: #000000; color: white;"><b>EYES</b></td> <td style="background-color: #000000; color: white;"><b>SKIN</b></td> </tr> </table>	<b>HEALTH</b>	<b>1</b>	<b>FLAMMABILITY</b>	<b>2</b>	<b>PHYSICAL HAZARDS</b>	<b>1</b>	<b>PROTECTIVE EQUIPMENT</b>	<b>B</b>	<b>EYES</b>	<b>SKIN</b>
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## 5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	<p><b>WARNING! FLAMMABLE LIQUID AND VAPOR!</b> Keep away from heat, lit cigarettes, sparks &amp; open flame. Keep container closed. This product is a Class IB flammable liquid. When involved in a fire, this product will ignite readily and decompose to produce carbon oxides. Vapors of this product are heavier than air and may travel to a source of ignition and flash back to a leaking or open container. Fine mist or sprays may be flammable at temperatures below the flashpoint. If involved in a fire, this product may decompose at high temperatures to form toxic gases (e.g., CO, CO<sub>2</sub>, NO<sub>x</sub>).</p>	
5.2	Extinguishing Methods:	Water, Foam, CO <sub>2</sub> , Dry Chemical	
5.3	Firefighting Procedures:	This product is a Class II flammable liquid. When involved in a fire, this product will ignite readily and decompose to produce carbon oxides. Vapors of this product are heavier than air and may travel to a source of ignition and flash back to a leaking or open container. First responders should wear eye protection. Structural firefighters must wear SCBAs and full protective equipment. Use a water spray or fog to reduce or direct vapors. Water may not be effective in actually extinguishing a fire involving this product.	

## 6. ACCIDENTAL RELEASE MEASURES

6.1	Spills:	<p>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment.</p> <p>For <u>small spills</u> (e.g., &lt; 1 gallon (&lt; 3.8 L)) 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.</p> <p>For <u>large spills</u> (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Transfer liquid to containers for recovery or disposal and solid 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.</p>
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## 7. HANDLING & STORAGE INFORMATION

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

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS &amp; 1272/2008/EC Standards

SDS Revision: 1.0

SDS Revision Date: 1/8/2016

**8. EXPOSURE CONTROLS & PERSONAL PROTECTION**

8.1	Exposure Limits: ppm (mg/m <sup>3</sup> )	CHEMICAL NAME(S)	ACGIH		NOHSC			OSHA			OTHER
			TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
		NA	NA	NA	NF	NF	NF	NA	NA	NA	
8.2	Ventilation & Engineering Controls:	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product. Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station).									
8.3	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.									
8.4	Eye Protection:	<b>AVOID EYE CONTACT DUE TO IRRITATION POTENTIAL.</b> Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling large quantities (e.g., ≥ 1 gallon (3.8 L)) of this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants.									
8.5	Hand Protection:	If anticipated that prolonged & repeated skin contact will occur during use of this product, wear latex or rubber gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the E.C. member states.									
8.6	Body Protection:	No special body protection is required under typical circumstances of use and handling. If necessary, refer to appropriate standards of Canada, the E.C. member states, or U.S. OSHA.									

**9. PHYSICAL & CHEMICAL PROPERTIES**

9.1	Appearance:	Translucent yellowish liquid
9.2	Odor:	Characteristic
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	57-60 °C (134.6-140 °F)
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	NA
9.11	Relative Density:	0.899
9.12	Solubility:	Insoluble
9.13	Partition Coefficient (log P <sub>ow</sub> ):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	NA
9.17	Other Information:	NA

**10. STABILITY & REACTIVITY**

10.1	Stability:	Stable under normal conditions; unstable with heat or contamination.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO <sub>2</sub> ), nitrogen (NO <sub>x</sub> ) and sulfur (SO <sub>2</sub> ).
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, sparks, high heat, incompatible substances and direct sunlight.
10.5	Incompatible Substances:	Avoid extreme heat and ignition sources. Store away from oxidizers.

**11. TOXICOLOGICAL INFORMATION**

11.1	Routes of Entry:	Inhalation: NO	Absorption: YES	Ingestion: YES
11.2	Toxicity Data:	This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific literature, is available for some of the components of the product but is not presented in this document.		
11.3	Acute Toxicity:	See section 4.4		
11.4	Chronic Toxicity:	See section 4.5		
11.5	Suspected Carcinogen:	No.		
11.6	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 cause teratogenic effects in humans.		
	Reproductive Toxicity:	This product is not reported to cause reproductive effects in humans.		

## 11. TOXICOLOGICAL INFORMATION – cont'd

11.7	Irritancy of Product:	The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.
11.8	Biological Exposure Indices:	NE
11.9	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 are no specific data available for this product.
12.3	Effects on Aquatic Life:	There are no specific data available for this product.

## 13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Disposal should be in accordance with local, state and federal regulations. Dispose of in accordance with federal, state and local regulations.
13.2	Special Considerations:	California Waste Code: 331

## 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 and the CTDGR.

14.1	49 CFR (GND):	CONSUMER COMMODITY, ORM-D – until 12/31/2020; or UN1169, EXTRACTS, AROMATIC, LIQUID, 3, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.2	IATA (AIR)*:	ID8000, CONSUMER COMMODITY, 9 (IP VOL ≤ 0.5 L); or UN1169, EXTRACTS, AROMATIC, LIQUID, 3, III (LTD QTY, IP VOL ≤ 2.5 L)	or
14.3	IMDG (OCN):	UN1169, EXTRACTS, AROMATIC, LIQUID, 3, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.4	TDGR (Canadian GND):	UN1169, EXTRACTS, AROMATIC, LIQUID, 3, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.5	ADR/RID (EU):	UN1169, EXTRACTS, AROMATIC, LIQUID, 3, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.6	SCT (MEXICO):	UN1169, EXTRACTOS, AROMATICOS, LIQUIDOS, 3, III (CANT. LTDA., IP VOL ≤ 5.0 L)	
14.7	ADGR (AUS):	UN1169, EXTRACTS, AROMATIC, LIQUID, 3, III (LTD QTY, IP VOL ≤ 5.0 L)	

This product may also be shipped as an Excepted Quantity (Inner Package Volume ≤ 30 mL, Total Quantity ≤ 500 mL per Outer Package)

## 15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product does not contain any substances subject to SARA Title III, section 313 reporting requirements	
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.	
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:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics). This material does not contain any hazardous air pollutants. None of the components in this product are listed as priority pollutants under the CWA. None of the components in this product are listed as toxic pollutants under the CWA.	
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS 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. WHMIS D2B (Other Toxic Effects).	
15.7	State Regulatory Information:	No ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).	
15.8	Other Requirements:	The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC: Harmful (Xn). <b>Risk Phrases (R):</b> 22-36 – Harmful if swallowed. Irritating to eyes. <b>Safety Phrases (S):</b> (2)-26 – Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	

## 16. OTHER INFORMATION

16.1	Other Information:	<p><b>WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED. CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.</b> Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take precautionary measures against static discharge. Avoid breathing fume/mist/vapours/spray. Wash hands and exposed skins areas with soap and warm water thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves and eye/face protection. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see Section 4 of this Safety Data Sheet. P330 – Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use water, foam, CO<sub>2</sub>, or dry chemical for extinction. Store in a well-ventilated place. Keep cool. Store locked up. <b>KEEP LOCKED UP AND OUT OF REACH OF CHILDREN.</b></p>	
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	
16.3	Disclaimer:	<p>This 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 &amp; JPMS Manufacturing, LLC's 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.</p>	
16.4	Prepared for:	<p><b>John Paul Mitchell Systems</b> 20705 Centre Pointe Parkway Santa Clarita, CA 91350 USA Tel: +1 (661) 298-0400 <a href="https://www.paulmitchell.com/">https://www.paulmitchell.com/</a></p>	
16.5	Prepared by:	<p><b>ShipMate, Inc.</b> P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 <a href="http://www.shipmate.com">http://www.shipmate.com</a></p>	

## DEFINITION OF TERMS

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

### GENERAL INFORMATION:

<b>CAS No.</b>	Chemical Abstract Service Number
<b>EXPOSURE LIMITS IN AIR:</b>	
<b>ACGIH</b>	American Conference on Governmental Industrial Hygienists
<b>C</b>	Ceiling Limit
<b>ES</b>	Exposure Standard (Australia)
<b>IDLH</b>	Immediately Dangerous to Life and Health
<b>OSHA</b>	U.S. Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>STEL</b>	Short-Term Exposure Limit
<b>TLV</b>	Threshold Limit Value
<b>TWA</b>	Time Weighted Average

### 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.
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### HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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

<b>HEALTH</b>
<b>FLAMMABILITY</b>
<b>PHYSICAL HAZARDS</b>
<b>PERSONAL PROTECTION</b>

### 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 SOPs for special handling directions.

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

### OTHER STANDARD ABBREVIATIONS:

<b>ML</b>	Maximum Limit
<b>mg/m3</b>	milligrams per cubic meter
<b>NA</b>	Not Available
<b>ND</b>	Not Determined
<b>NE</b>	Not Established
<b>NF</b>	Not Found
<b>NR</b>	No Results
<b>ppm</b>	parts per million
<b>SCBA</b>	Self-Contained Breathing Apparatus

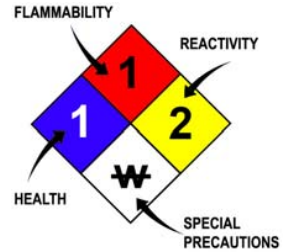
### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

#### 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

### 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
<b>TREFOIL</b>	Radioactive



### 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>10</sub></b>	Lowest dose to cause a symptom
<b>TCLo</b>	Lowest concentration to cause a symptom
<b>TD<sub>10</sub>, LD<sub>10</sub>, &amp; LD<sub>01</sub> or TC, TC<sub>01</sub>, LC<sub>10</sub>, &amp; LC<sub>01</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>NOHSC</b>	National Occupational Health and Safety Commission (Australia)
<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>WGK</b>	Wassergefährdungsklassen (German Water Hazard Class)
<b>HMIS-III</b>	National Paint & Coatings Association Hazardous Materials Identification System

### WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class 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:

GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment