

Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS &amp; EU Standards

SDS Revision: 1.0

SDS Revision Date: 10/11/2022

## 1. PRODUCT &amp; COMPANY IDENTIFICATION

1.1	Product Name:	<b>PAUL MITCHELL® FAST DRYING SCULPTING SPRAY (50% VOC)</b>
1.2	Chemical Name:	Ethanol Solution
1.3	Synonyms:	NA
1.4	Trade Names:	Paul Mitchell® Fast Drying Sculpting Spray (50% VOC)
1.5	Product Use:	Hairspray / Personal Care / Cosmetic
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>CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300</b>
1.9	Business Phone / Fax:	+1 (661) 298-0400 / +1 (661) 298-0390

## 2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	Prepared in accordance with UN Globally Harmonized standards. Intended to comply with OSHA 29 CFR 1910.1200. Canadian WHMIS and Australian Work Health and Safety standards. <b>DANGER! HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES SERIOUS EYE IRRITATION.</b> Classification: Flam. Liq. 2; Eye Irrit. 2A
2.2	Label Elements:	<p><b>Hazard Statements (H):</b> H225 – Highly Flammable liquid and vapor. H319 – Causes serious eye irritation.</p> <p><b>Precautionary Statements (P):</b> P210 – Keep away from heat/sparks/open flame/hot surfaces. No Smoking. P233 – Keep container tightly closed. P242 – Use non-sparking tools. P243 – Take precautionary measures against static discharge. P264 – Wash exposed skin areas thoroughly with soap and water after handling. P280 – Wear eye protection/face protection. P305+P351+P338 – IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P337+P317 – If eye irritation persists: Get medical help. P370+P378 – In case of fire, CO<sub>2</sub>, Halon (if permitted), dry chemical, or foam for extinction. P403+P235 – Store in a well-ventilated place. Keep cool. P501 – Dispose of contents/container to a licensed treatment, storage, or disposal facility (TSDf).</p>
2.3	Other Warnings:	In the event of an exposure or medical inquiry involving this product, please contact a physician or local poison control center, who may seek advice from the U.S. manufacturer, and show them this SDS. <b>KEEP OUT OF REACH OF CHILDREN.</b>



## 3. COMPOSITION &amp; INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> )									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
ETHANOL (SD ALCOHOL 40B)	64-17-5	KQ6300000	200-578-6	45-50	1000	3000	1000	1800	NF	1000	1900	3300		
	Flam. Liq. 2; H225													
WATER (AQUA/EAU)	7732-18-5	NA	231-791-2	40-45	NA	NA	NF	NF	NA	NA	NA	NA		
PROPRIETARY BLEND	NA	NA	NA	0.1-10	NA	NA	NF	NF	NA	NA	NA	NA		
FRAGRANCE	NA	NA	NA	0.1-1	NA	NA	NF	NF	NA	NA	NA	NA	ALLERGEN	

## 4. FIRST AID MEASURES

4.1	First Aid:	<p><b>Ingestion:</b> If ingested, do not induce vomiting! Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.</p> <p><b>Eyes:</b> If product gets in the eyes, 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. If problem persists, 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, consult a physician immediately.</p> <p><b>Inhalation:</b> Remove victim to fresh air at once. If breathing stops, perform artificial respiration. Seek immediate medical attention.</p>
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## 4. FIRST AID MEASURES – cont'd

4.2	Effects of Exposure:	<p><b>Ingestion:</b> If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.</p> <p><b>Eyes:</b> The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration. The vapor is discomforting to the eye. Splashes may cause severe eye irritation, possible corneal burns and eye damage. Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p><b>Skin:</b> May be irritating to skin, especially after prolonged contact. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.</p> <p><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>															
4.3	Symptoms of Overexposure:	Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. Overexposure in eyes may cause redness, itching and watering. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.															
4.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.															
4.5	Chronic Health Effects:	The material may accentuate any pre-existing dermatitis condition. Methylparaben contained in very small amounts in this product, may be a mild allergen to some sensitive individuals.															
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, skin, and respiratory system).															
		<table border="1"> <tr> <td colspan="2"><b>HEALTH</b></td> <td><b>2</b></td> </tr> <tr> <td colspan="2"><b>FLAMMABILITY</b></td> <td><b>3</b></td> </tr> <tr> <td colspan="2"><b>PHYSICAL HAZARDS</b></td> <td><b>0</b></td> </tr> <tr> <td colspan="2"><b>PROTECTIVE EQUIPMENT</b></td> <td><b>B</b></td> </tr> <tr> <td><b>EYES</b></td> <td><b>SKIN</b></td> <td></td> </tr> </table>	<b>HEALTH</b>		<b>2</b>	<b>FLAMMABILITY</b>		<b>3</b>	<b>PHYSICAL HAZARDS</b>		<b>0</b>	<b>PROTECTIVE EQUIPMENT</b>		<b>B</b>	<b>EYES</b>	<b>SKIN</b>	
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<b>EYES</b>	<b>SKIN</b>																

## 5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	<b>DANGER! HIGHLY FLAMMABLE LIQUID AND VAPOR!</b> Keep away from heat, lit cigarettes, sparks & 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.	
5.2	Extinguishing Methods:	CO <sub>2</sub> , Halon (if permitted), Dry Chemical, Foam, water mist.	
5.3	Firefighting Procedures:	Fight fires according to the surrounding materials. As in any fire, wear an MSHA / NIOSH approved self-contained breathing apparatus (pressurized) and full protective clothing. Keep containers cold long after the fire is out. Use a spray of diffused water to cool the surfaces exposed to the fire and to protect personnel. Fight the fire upstream. Avoid spraying water directly into storage containers due to the danger of overflowing. Prevent runoff from fire control or dilution from entering sewers, drains, potable water supplies or natural waterways. Firefighters must use full response clothing including a NIOSH approved self-contained positive pressure breathing apparatus to protect against potential hazardous combustion or decomposition of products and lack of oxygen.	

## 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 (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). 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 drains, municipal sewers and open bodies of water.</p>
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## 7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Avoid prolonged contact with the product. Avoid breathing vapors of this product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product.
7.2	Storage & Handling:	Keep this material away from heat, sparks and open flame. Open containers slowly on a stable surface. Keep container closed tightly when not in use. Empty container may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, other light sources, or sources of intense heat. Store away from incompatible materials (See Section 10).
7.3	Special Precautions:	Open containers slowly on a stable surface. Keep container tightly closed when not in use. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care.

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Exposure Limits: ppm (mg/m <sup>3</sup> )	ACGIH		NOHSC			OSHA			OTHER
		TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
	CHEMICAL NAME(S)									
	ETHANOL (SD ALCOHOL 40B)	1000	3000	1000	1800	NF	1000	1900	3300	
	FRAGRANCE	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
8.2	Ventilation & Engineering Controls:	When working with large quantities of product, provide adequate ventilation (e.g., local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.								
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia.								
8.4	Eye Protection:	<b>AVOID EYE CONTACT DUE TO SENSITIZATION POTENTIAL.</b> None required under normal conditions of use. Safety glasses with side shields should be used when handling large quantities (e.g., ≥ 1 gallon) of this product.								
8.5	Hand Protection:	None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon), wear rubber or impervious plastic gloves.								
8.6	Body Protection:	No apron required when handling small quantities. When handling large quantities (e.g., ≥ 1 gallon), eye wash stations and deluge showers should be available.								



## 9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Clear homogenous liquid
9.2	Odor:	Alcohol/cucumber melon
9.3	Odor Threshold:	NA
9.4	pH:	7.40-7.70
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	<20°C (<68°F) TCC
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	NA
9.11	Relative Density:	0.900-0.915
9.12	Solubility:	NA
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:	50% VOC

## 10. STABILITY & REACTIVITY

10.1	Stability:	Relatively stable under ambient conditions when stored properly.
10.2	Hazardous Decomposition Products:	If exposed to <u>extremely high temperatures</u> , products of thermal decomposition may include irritating vapors and toxic gases (e.g., oxides of carbon & nitrogen).
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Exposure or contact to extreme temperatures, incompatible chemicals, strong light sources, sparks, flame.
10.5	Incompatible Substances:	Strong oxidizers, peroxides, or strong acids.

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## 11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation: YES	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, 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:	Ethanol: California Proposition 65 ((CA65) ethanol in alcoholic beverages) This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .		
11.6	Reproductive Toxicity:	This product is not reported to cause 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.		
11.7	Irritancy of Product:	See Section 4.3		
11.8	Biological Exposure Indices:	NE		
11.9	Physician Recommendations:	Treat symptomatically.		

## 12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There are no specific data available for this product. The components of this product will slowly degrade over time into a variety of organic compounds. Specific environmental data available for the components of this product are as follows: Ethanol: In water, will volatilize and probably degrade.
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:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state, and federal laws and regulations.
13.2	Special Considerations:	Contact the federal, state or provincial environmental authority to determine suitability for recycling and or proper disposal requirements. U.S. EPA Hazardous Waste (Characteristic – Ignitable): D001

## 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):	UN1170, ETHANOL SOLUTION, 3, II, (LTD QTY, IP VOL ≤ 1.0 L)	
14.2	IATA (AIR):	UN1170, ETHANOL SOLUTION, 3, II, (LTD QTY, IP VOL ≤ 0.5 L); or ID8000, CONSUMER COMMODITY, 9 (IP VOL ≤ 0.5 L)	or
14.3	IMDG (OCN):	UN1170, ETHANOL SOLUTION, 3, II, (LTD QTY, IP VOL ≤ 1.0 L)	
14.4	TDGR (Canadian GND):	UN1170, ETHANOL SOLUTION, 3, II, (LTD QTY, IP VOL ≤ 1.0 L)	
14.5	ADR/RID (EU):	UN1170, ETHANOL SOLUTION, 3, II, (LTD QTY, IP VOL ≤ 1.0 L)	
14.6	SCT (MEXICO):	UN1170, ETHANOL SOLUTION, 3, II, (CANT. LTD, IP VOL ≤ 1.0 L)	
14.7	ADGR (AUS):	UN1170, ETHANOL SOLUTION, 3, II, (LTD QTY, IP VOL ≤ 1.0 L)	
14.8	Other:	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 TPQ:	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:	NA
15.5	Other Federal Requirements:	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.

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## 15. REGULATORY INFORMATION – cont'd

15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the HPR and the SDS contains all the information required by the HPR. 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 B2, D2B (Flammable, Other Toxic Effects).	
15.7	State Regulatory Information:	<u>Ethanol</u> is found on the following state criteria list: CA, NJ, FL, MA, MN, PA and WA. No other 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). This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>	
15.8	Other Requirements:	NA	

## 16. OTHER INFORMATION

16.1	Other Information:	<b>DANGER! HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES SERIOUS EYE IRRITATION.</b> External use only. Use as directed. Discontinue use if irritation develops. Keep away from heat/sparks/open flame/hot surfaces. No Smoking. Keep container tightly closed. Avoid breathing fume/mist/vapors/spray. Wash exposed skin areas thoroughly with soap and water after handling. Use only outdoors or in a well-ventilated area. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If irritation persists: Seek medical help. In case of fire, CO <sub>2</sub> , halon (if permitted), dry chemical, or foam for extinction. Store in a well-ventilated place. Keep container tightly closed. <b>KEEP OUT OF REACH OF CHILDREN.</b>	
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	
16.3	Disclaimer:	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 & John Paul Mitchell Systems', 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:	<b>John Paul Mitchell Systems</b> 20705 Centre Pointe Parkway, Santa Clarita, CA 91350 USA Tel: +1 (661) 298-0400 Fax: +1 (661) 298-0390	
16.5	Prepared by:	<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>	

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## 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:

CAS No.	Chemical Abstract Service Number
RTECS No.	Registry of Toxic Effects of Chemical Substances Number
EINECS No.	European Inventory of Existing Commercial Chemical Substances Number

## EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
IDLH	Immediately Dangerous to Life and Health
NOHSC	National Occupational Health and Safety Commission (Australia)
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average

## 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 &amp; REACTIVITY RATINGS:

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

HEALTH
FLAMMABILITY
PHYSICAL HAZARDS
PERSONAL PROTECTION

## PERSONAL PROTECTION RATINGS:

A	
B	
C	
D	
E	
F	

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

Safety Glasses	Splash Goggles	Face Shield & Protective Eyewear	Gloves
Boots	Protective 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:

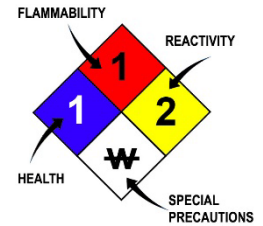
Carc	Carcinogenic
Irrit	Irritant
NA	Not Available
NR	No Results
ND	Not Determined
NE	Not Established
NF	Not Found
SCBA	Self-Contained Breathing Apparatus
Sens	Sensitization
STOT RE	Specific Target Organ Toxicity – Repeat Exposure
STOT SE	Specific Target Organ Toxicity – Single Exposure

## NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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

## HAZARD RATINGS:

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



## TOXICOLOGICAL INFORMATION:

LD <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>10</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>10</sub> , LD <sub>10</sub> , & LD <sub>01</sub> or TC, TC <sub>01</sub> , LC <sub>10</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:

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

## 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