

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



SDS Revision: 3.2

SDS Revision Date: 2/8/2016

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	OPI SWISS HAND GUARD ANTISEPTIC HANDWASH GEL
1.2	Chemical Name:	Ethanol Solution
1.3	Synonyms:	NA
1.4	Trade Names:	SD041, SD 044, SD046, SD047, SD048, SD052, SD 045, SD053, SD051, SD054, SD056, SD057, SD058
1.5	Product Use:	Professional Or Sundry Use Only
1.6	Distributor's Name:	OPI Products, Inc.
1.7	Distributor's Address:	13034 Saticoy Street, No. Hollywood, CA 91605 USA
1.8	Emergency Phone:	CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 16377)
1.9	Business Phone / Fax:	+1 (818) 759-2400 / +1 (818) 759-5776

2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	<p>This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia).</p> <p>WARNING! HIGHLY FLAMMABLE LIQUID AND VAPOR. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES EYE IRRITATION.</p> <p><u>Classification:</u> Flam. Liq. 2; Skin Sens. 1A; Eye Irrit. 2B</p> <p><u>Hazard Statements (H):</u> H225 – Highly flammable liquid and vapor. H317 – May cause an allergic skin reaction. H320 – Causes eye irritation.</p> <p><u>Precautionary Statements (P):</u> P210 – Keep away from heat/sparks/open flame/hot surfaces – No Smoking. P233 – Keep container tightly closed. P261 – Avoid breathing mist/spray. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective 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. 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). P370+P378 - In case of fire, CO₂, 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>	 
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3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)									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	40-70	1000	3000	1000	1800	NF	1000	1900	3300		
	Flam.Liq.2; H225													
AQUA (WATER/EAU)	7732-18-5	ZC0110000	231-791-2	15-40	NA	NA	NF	NF	NF	NA	NA	NA		
CARBOMER 980	9003-01-4	NA	NA	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
SORBITOL	50-70-4	LZ4290000	200-061-5	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
ETHYLHEXYL PALMITATE	29806-73-3	NA	249-862-1	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
MENTHA PIPERITA(PEPPERMINT) OIL	8006-90-4	NA	282-015-4	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
MENTHOL	2216-51-5	OT0525000	216-074-4	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
EUCALYPTUS GLOBULUS LEAF OIL	8000-48-4	NA	283-406-2	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
TROMETHAMINE	77-86-1	TY2900000	201-064-4	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
DROMETRIZOLE	2440-22-4	GO6860000	219-470-5	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
LIMONENE	5989-27-5	GW6360000	227-813-5	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
	Flam. Liq. 3; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1; H226, H315, H317, H400, H410													
LINALOOL	78-70-6	NA	201-134-4	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
CI 17200 (RED 33)	3567-66-6	NA	222-656-9	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		

4. FIRST AID MEASURES

4.1	First Aid:	<p><u>Ingestion:</u> 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><u>Eyes:</u> 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><u>Skin:</u> If irritation occurs & 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><u>Inhalation:</u> Remove victim to fresh air at once. If breathing stops, perform artificial respiration. Seek immediate medical attention.</p>															
4.2	Effects of Exposure:	<p><u>Ingestion:</u> If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.</p> <p><u>Eyes:</u> 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.</p> <p><u>Skin:</u> Symptoms of overexposure may include redness, itching, irritation and watering. 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><u>Inhalation:</u> 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. None known; however, components contained in very small quantities in this product, may be mild allergens to some sensitive individuals.															
4.6	Target Organs:	Eyes, Skin, Respiratory System.															
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> <tr> <td colspan="2">HEALTH</td><td>1</td></tr> <tr> <td colspan="2">FLAMMABILITY</td><td>3</td></tr> <tr> <td colspan="2">PHYSICAL HAZARDS</td><td>0</td></tr> <tr> <td colspan="2">PROTECTIVE EQUIPMENT</td><td>B</td></tr> <tr> <td>EYES</td><td>SKIN</td><td></td></tr> </table>	HEALTH		1	FLAMMABILITY		3	PHYSICAL HAZARDS		0	PROTECTIVE EQUIPMENT		B	EYES	SKIN	
HEALTH		1															
FLAMMABILITY		3															
PHYSICAL HAZARDS		0															
PROTECTIVE EQUIPMENT		B															
EYES	SKIN																

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	Keep away from heat, lit cigarettes, sparks & open flame. Keep container closed. When exposed to high temperatures, may produce hazardous decomposition products such as oxides of carbon (e.g., CO, CO ₂) and nitrogen (e.g., NO _x) and smoke.	
5.2	Extinguishing Methods:	Water, Foam, CO ₂ , Dry Chemical, Halon (if permitted)	
5.3	Firefighting Procedures:	As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand) and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Fight fire upwind. 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.	

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., <1 gallon) 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> ≥ 1 gallon, 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 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. If necessary, use a moisturizer after washing. 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:	Do not store where temperatures can exceed 50 °C (122 °F). Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Exposure Limits: ppm (mg/m ³)	OF EXPOSURE CONTROLS & PERSONAL PROTECTION										
		CHEMICAL NAME(S)	ACGIH		NOHSC			OSHA			OTHER	
			TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
			ETHANOL (SD ALCOHOL 40B)	1000	3000	1000	1800	NF	1000	1900	3300	
			LIMONENE	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
LINALOOL	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN			
8.2	Ventilation & Engineering Controls:	Use with adequate ventilation (e.g., local exhaust ventilation, fans). 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:	AVOID EYE CONTACT DUE TO IRRITATION POTENTIAL. 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:	None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. 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 EU 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 EU member states, or U.S. OSHA.										

**9. PHYSICAL & CHEMICAL PROPERTIES**

9.1	Appearance:	Light pink, viscous gel
9.2	Odor:	Fragrant, minty odor
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	78 °C (173 °F)
9.7	Flashpoint:	13 °C (56 °F)
9.8	Upper/Lower Flammability Limits:	UEL 19.0; LEL 3.3
9.9	Vapor Pressure:	ND
9.10	Vapor Density:	NA
9.11	Relative Density:	0.92
9.12	Solubility:	Soluble in water
9.13	Partition Coefficient (log Pow):	NA
9.14	Autoignition Temperature:	422 °C (793 °F)
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	NE
9.17	Other Information:	NA

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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, strong acids or alkalis.

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 of the product and is presented below: <u>Limonene</u> LD ₅₀ (oral, rat): 4,400		
11.3	Acute Toxicity:	See Section 4.4		
11.4	Chronic Toxicity:	See Section 4.5		
11.5	Suspected Carcinogen:	The following ingredient is listed on IARC 3 - Group 3 (Not classifiable as to its carcinogenicity to humans): <u>Limonene</u>		
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 is 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: <u>Ethanol</u> : In water, will volatilize and probably degrade.
12.2	Effects on Plants & Animals:	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	There is no specific data available for this product.

13. DISPOSAL CONSIDERATIONS




13.1	Waste Disposal:	Waste disposal must be in accordance with appropriate Federal, state, and local regulations.
13.2	Special Considerations:	U.S. EPA Waste Number: D001 (characteristic - ignitable)

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); or CONSUMER COMMODITY, ORM-D – until 12/31/2020 *	
14.2	IATA (AIR):	CONSUMER COMMODITY, 9, ID8000 (IP VOL ≤ 0.5 L) UN1170, ETHANOL SOLUTION, 3, II, LTD QTY (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) "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (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, ETANOL EN SOLUCIÓN, 3, II, CANTIDAD LIMITADA (IP VOL ≤ 1.0 L)	
14.7	ADGR (AUS):	UN1170, ETHANOL SOLUTION, 3, II, LTD QTY (IP VOL ≤ 1.0 L)	

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 or are otherwise exempt.
15.4	CERCLA Reportable Quantity (RQ):	<u>Ethanol</u> : 2,270 kg (5,000 lbs)
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDL. None of the components of this product are listed on the Priorities Substances List. WHMIS D2B (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).
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: <u>Ethanol</u> : Flammable (F). <u>Risk Phrases</u> : R11 – Highly Flammable. <u>Safety Phrases</u> : S2-7-16 – Keep out of reach of children. Keep container tightly closed. Keep away from sources of ignition. No smoking. 

16. OTHER INFORMATION

16.1	Other Information:	WARNING! HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION. For external use only. Use only as directed. Discontinue use immediately if irritation develops. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Keep container tightly closed when not in use. Keep away from sources of ignition. No smoking. KEEP OUT OF REACH OF CHILDREN.
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 & OPI'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.
16.4	Prepared for:	OPI Products, Inc. 13034 Saticoy Street No. Hollywood, CA 91605 USA Tel: +1 (818) 759-2400 Fax: +1 (818) 759-5776 http://www.opi.com 
16.5	Prepared by:	ShipMate, Inc. P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com 

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
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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:

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	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:

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

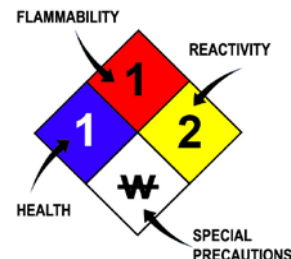
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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
TREFOIL	Radioactive



TOXICOLOGICAL INFORMATION:

LD ₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC ₅₀	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD ₁₀	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD ₁₀ , LD ₁₀ , & LD ₀ or TC, TC ₀ , LC ₁₀ , & LC ₀	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)
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

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