

SAFETY DATA SHEET

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


SDS Revision: 1.1

SDS Revision Date: 7/25/2015

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	3 PIECE SUPER GLUE GEL
1.2	Chemical Name:	Ethyl-2 Cyanoacrylate
1.3	Synonyms:	P/N 67190
1.4	Trade Names:	Harbor Freight Tools
1.5	Product Uses & Restrictions:	Adhesive
1.6	Distributor's Name:	Harbor Freight Tools USA, Inc.
1.7	Distributor's Address:	26541 Agoura Road, Calabasas, CA 91302 USA
1.8	Emergency Phone:	CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 676687)
1.9	Business Phone / Fax:	+1 (805) 388-1000

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: 1088 (2004)] and ADG Code (Australia).</p> <p>WARNING! CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION.</p> <p><u>Classification:</u> Skin Irrit.2; Skin Sens. 1; Eye Dam. 1; STOT SE 3</p> <p><u>Hazard Statements</u> (H): H315 – Causes skin irritation. H317 – May cause an allergic skin reaction. H319 – Causes serious eye irritation. H335 – May cause respiratory irritation.</p> <p><u>Precautionary Statements</u> (P): P210 – Keep away from heat/sparks/open flame/hot surfaces – No Smoking. P233 – Keep container tightly closed. P261 – Avoid breathing fume/ mist/vapors/spray. P264 – Wash exposed skin areas thoroughly with soap and water after handling. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 – IF ON SKIN – Wash with soap and water. P305+P351+P338 – IF IN EYES – Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P333+P313 – If skin irritation or a rash occurs – Get medical advice/attention. P321 – For specific first aid treatment (see section 4 of this Safety Data Sheet). P363 – Wash contaminated clothing before reuse. 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>	
-----	------------------------	--	---

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		
ETHYL-2 CYANOACRYLATE	7085-85-0	UD3330050	230-391-5	60-100	(0.2)	NA	NF	NF	NF	NA	NA	NA		
	Skin Irrit.2; Eye Irrit. 2; STOT SE 3; H315, H319, H335													
HYDROQUINONE	123-31-9	MX3500000	204-617-8	0.0-0.5	NA	NA	NF	2	NA	NA	NA	50		
	Carc. 2; Muta. 2; Acute Tox. 4 *: Eye Dam. 1; Skin Sens. 1; Aquatic Acute 1; H351, H341, H302, H318, H317, H400													

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>Skin:</u> WARNING: This product bonds skin immediately. Do not pull. Peel slowly using acetone, (use lukewarm water only for product removal, if skin bonding has occurred near the eyes). If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician. Immediately</p> <p><u>Eyes:</u> Contact a physician immediately. Do not try to open the eye. Flush with cool water for at least 15 minutes opening and closing eyelids to ensure thorough irrigation. If irritation persists, contact a physician.</p> <p><u>Inhalation:</u> Remove victim to fresh air at once. If breathing stops, perform artificial respiration. Seek immediate medical attention.</p> <p><u>Clothing:</u> May bond skin to clothing and may release heat, causing burns. Cool burned area immediately with cold water. If clothing adheres to skin, do not pull; peel slowly under lukewarm water. Consult a physician for treatment of burns.</p>
-----	------------	---

SAFETY DATA SHEET

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


SDS Revision: 1.1

SDS Revision Date: 7/25/2015

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 and central nervous system depression.</p> <p><u>Eyes:</u> Vapor of this product may be mildly to moderately irritation to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p><u>Skin:</u> WARNING! THIS PRODUCT WILL BOND SKIN INSTANTLY May be irritating to skin in some sensitive individuals, especially after prolonged or repeated skin contact. May bond skin to clothing and release heat, causing burns.</p> <p><u>Inhalation:</u> Inhalation of vapors is unlikely under normal conditions of use. Vapors of this product may be slightly 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 vapors exceeding the levels listed in Section 3 (Composition and Ingredient Information) can cause central nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).</p> <p><u>Clothing:</u> May undergo rapid polymerization on contact with clothing, releasing heat. Skin burns may result.</p>															
4.3	Symptoms of Overexposure:	Symptoms of skin overexposure in some sensitive individuals may include redness, itching, and irritation of affected areas. Overexposure of vapor in eyes may cause redness, itching and watering.															
4.4	Acute Health Effects:	Mild to moderate irritation to skin near affected areas. Vapor of this product may be mildly to moderately irritating to the eyes and mucous membranes. Symptoms of overexposure may include redness, itching, irritation and watering. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.															
4.5	Chronic Health Effects:	Possible allergic dermatitis in some sensitive individuals															
4.6	Target Organs:	Eyes, Skin, Respiratory System.															
4.7	Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin conditions.															
		<table><tr><td colspan="2">HEALTH</td><td>2</td></tr><tr><td colspan="2">FLAMMABILITY</td><td>1</td></tr><tr><td colspan="2">PHYSICAL HAZARDS</td><td>2</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		2	FLAMMABILITY		1	PHYSICAL HAZARDS		2	PROTECTIVE EQUIPMENT		B	EYES	SKIN	
HEALTH		2															
FLAMMABILITY		1															
PHYSICAL HAZARDS		2															
PROTECTIVE EQUIPMENT		B															
EYES	SKIN																

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	Rapid polymerization may occur at very high temperatures.	
5.2	Extinguishing Methods:	CO ₂ , Halon (if permitted), Dry Chemical	
5.3	Firefighting Procedures:	When involved in a fire, this product will ignite readily and decompose to produce oxides of carbon and nitrogen and hydrogen cyanide. 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:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For <u>small spills</u> (e.g., < 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. 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 drains, municipal sewers and open bodies of water.
-----	---------	---

7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Avoid prolonged or repeated skin contact. Avoid breathing vapors of this product. Use eye protection when using this product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap & water. Do not eat, drink or smoke while handling product.
7.2	Storage & Handling:	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, Stability and Reactivity).
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.

SAFETY DATA SHEET

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

SDS Revision: 1.1

SDS Revision Date: 7/25/2015

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Exposure Limits: ppm (mg/m ³)	CHEMICAL NAME(S)	ACGIH		NOHSC			OSHA			OTHER
			TLV (0.2)	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
		ETHYL-2 CYANOACRYLATE	NA	NA	NF	NF	NF	NA	NA	NA	
		HYDROQUINONE	NA	NA	NF	2	NA	NA	NA	50	
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:	In instances where dusts are generated when using this product, 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:	Safety glasses with side shields should be used with this product. This product is irritating to the eyes.									
8.5	Hand Protection:	WARNING! THIS PRODUCT WILL BOND SKIN INSTANTLY. Therefore, the use of latex or rubber gloves is recommended. 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:	WARNING! THIS PRODUCT WILL BOND SKIN INSTANTLY. Therefore, the use of an apron is recommended. When handling large quantities (e.g., ≥ 1 gallon), eye wash stations and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water. If necessary, refer to appropriate standards of Canada, the EU member states, or U.S. OSHA.									

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Clear colorless 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:	60-70 @ 3-5 mm Hg
9.7	Flashpoint:	80 °C (176 °F)
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	0.02 kPa
9.10	Vapor Density:	1
9.11	Relative Density:	1.07 @ 20 °C
9.12	Solubility:	Insoluble in water. Cured material is soluble in acetone
9.13	Partition Coefficient (log P _{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	40-60 cPs
9.17	Other Information:	VOC: < 2% g/l (California SCAQMD Method 316B)(Estimated)

10. STABILITY & REACTIVITY

10.1	Stability:	Stable under ambient conditions when stored properly (see Section 7, Storage and Handling).
10.2	Hazardous Decomposition Products:	If exposed to extremely high temperatures, the products of thermal decomposition may include irritating vapors and carbon oxide gases and hydrogen cyanide (e.g., CO, CO ₂ , HCN).
10.3	Hazardous Polymerization:	May occur, if exposed to extremely high temperatures or exposed to moisture.
10.4	Conditions to Avoid:	Exposure to or contact with extreme temperatures, strong light sources or incompatible materials.
10.5	Incompatible Substances:	This product is incompatible with strong oxidizers (e.g., peroxides, superoxides), strong acids (e.g., hydrochloric or muriatic acids), or strong bases (e.g., lye, potassium hydroxide).

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, 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:	Hydroquinone is listed as ACGIH Group A3 (Confirmed animal carcinogen with unknown relevance to human).		

SAFETY DATA SHEET

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

SDS Revision: 1.1

SDS Revision Date: 7/25/2015

11. TOXICOLOGICAL INFORMATION – cont'd

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.
11.7	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:	This product will slowly volatile from soil. Components of this product will slowly decompose into organic compounds.
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:	Dispose of in accordance with federal, state, provincial and local regulations.
13.2	Special Considerations:	NA

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):	NOT REGULATED	
14.2	IATA (AIR):	UN3334, AVIATION REGULATED LIQUID, N.O.S. (ETHYL CYANOACRYLATE), 9, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.3	IMDG (OCN):	NOT REGULATED	
14.4	TDGR (Canadian GND):	NOT REGULATED	
14.5	ADR/RID (EU):	NOT REGULATED	
14.6	SCT (MEXICO):	NOT REGULATED	
14.7	ADGR (AUS):	NOT REGULATED	
14.8	SPECIAL NOTES:	* 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 contains <u>Hydroquinone</u> , a substance subject to SARA Title III, section 313 reporting requirements.	
15.2	SARA Threshold Planning Quantity:	<u>Hydroquinone</u> : 500 kg (1,000 lbs)	
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>Hydroquinone</u> : 45.4 kg (100 lbs)	
15.5	Other Federal Requirements:	None of the ingredients are listed as Hazardous Air Pollutants (HAPs). None of the ingredients are listed as Toxic Pollutants under the Clean Water Act (CWA). None of the ingredients are listed as Priority Pollutants under the Clean Water Act (CWA). This product does not contain any Class 1 or Class 2 ozone depleters.	
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>Ethyl Cyanoacrylate</u> is found on the following state criteria listS: New Jersey Right-to-Know List (NJ). <u>Hydroquinone</u> is found on the following state criteria list: FL, MA, MN, NY PA and WA. 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 listed in Annex I of EU Directive 67/548/EEC: <u>Ethyl Cyanoacrylate</u> : Irritant (Xi). <u>Risk Phrases</u> (R): 36/37/38-43 - Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. <u>Safety Phrases</u> (S): 2-24/25-26-46Keep away from children. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical advice immediately and show this SDS or container label.	

SAFETY DATA SHEET

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

SDS Revision: 1.1

SDS Revision Date: 7/25/2015

16. OTHER INFORMATION

16.1	Other Information:	WARNING! CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. WARNING: THIS PRODUCT BONDS SKIN IMMEDIATELY. Use only as directed. Obtain special instructions before use. Make sure all safety precautions are read and understood. Avoid breathing fume/ mist/vapors/spray. Wash exposed skin areas thoroughly with soap and water after handling. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with soap and water. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If skin irritation or a rash occurs – Get medical advice/attention. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep cool. 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 & Harbor Freight Tools USA, Inc.'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:	Harbor Freight Tools USA, Inc. 26541 Agoura Road Calabasas, CA 91302 USA Tel: +1 (805) 388-1000 http://www.harborfreight.com	HARBOR FREIGHT TOOLS Quality Tools at Ridiculously Low Prices
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	

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

SDS Revision: 1.1

SDS Revision Date: 7/25/2015

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
---------	----------------------------------

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
C	Ceiling Limit
ES	Exposure Standard (Australia)
IDLH	Immediately Dangerous to Life and Health
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.
-----	--

HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard	HEALTH
1	Slight Hazard	FLAMMABILITY
2	Moderate Hazard	PHYSICAL HAZARDS
3	Severe Hazard	PERSONAL PROTECTION
4	Extreme Hazard	

PERSONAL PROTECTION RATINGS:

A		G													
B		H													
C		I													
D		J													
E		K													
F		X	Consult your supervisor or SOPs for special handling directions.												
<table><tr><td> Safety Glasses</td><td> Splash Goggles</td><td> Face Shield & Protective Eyewear</td><td> Gloves</td></tr><tr><td> Boots</td><td> Synthetic Apron</td><td> Protective Clothing & Full Suit</td><td> Dust Respirator</td></tr><tr><td> Full Face Respirator</td><td> Dust & Vapor Half-Mask Respirator</td><td> Full Face Respirator</td><td> Airline Hood/Mask or SCBA</td></tr></table>				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
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:

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

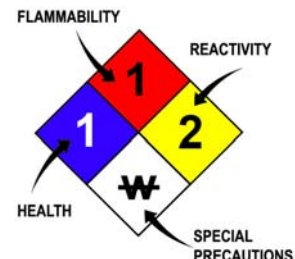
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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 ₅₀ or TC, TC ₅₀ , LC ₁₀ , & LC ₅₀	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
NOHSC	National Occupational Health and Safety Commission (Australia)
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)
HMIS-III	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