



# SAFETY DATA SHEET

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NN-008

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS &amp; 2020/878/EU Standards

SDS Revision: 1.0

SDS Revision Date: 10/9/2023

## 1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	<b>NITRO NAIL ACTIVATOR (DIPPING SOLUTION)</b>
1.2	Chemical Name:	Solvent Mixture
1.3	Synonyms:	Nitro Nail Activator (Dipping Solution)
1.4	Trade Names:	Nitro Nail Activator (Dipping Solution)
1.5	Product Use:	Cosmetic Use
1.6	Distributor's Name:	Nitro Nail Systems
1.7	Distributor's Address:	1900 Jay Ell Drive Richardson, TX 75081 USA
1.8	Emergency Phone:	<b>+1 (855) 747-8584</b>
1.9	Business Phone / Fax:	+1 (855) 747-8584

## 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. <b>DANGER! HIGHLY FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE DIZZINESS OR DROWSINESS.</b> Classification: Flam. Liq. 2, Acute Tox. 4 (oral), Eye Irrit. 2A, STOT SE 3
2.2	Label Elements:	<p><b>Hazard Statements (H):</b> H225 – Highly flammable liquid and vapor. H302 – Harmful if swallowed. H319 – Causes serious eye irritation. H336 – may cause dizziness or drowsiness.</p> <p><b>Precautionary Statements (P):</b> P210 – Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P233 - Keep container tightly closed. P240 – Ground and bond containers and receiving equipment. P242 – Use non-sparking tools. P243 - Take precautionary measures against static discharge. P264+P265 – Wash thoroughly with soap and water after handling. Do not touch eyes. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water (or shower). 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+P317 – If skin irritation or a rash occurs - Get medical help. P321 – For specific first aid treatment (see section 4 of this Safety Data Sheet). P370+P378 – In case of fire: use water fog, CO<sub>2</sub>, Halon (if permitted), dry chemical, or foam to extinguish. 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:	<b>KEEP OUT OF REACH OF CHILDREN.</b>



## 3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> )									OTHER
					ACGIH		NOHSC			OSHA				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
ETHYL ACETATE	141-78-6	AH5425000	205-500-4	85-100	400	400	200	400	NF	NA	NA	2000	400 TWA	
					Flam. Liq. 2; Eye Irrit. 2; STOT SE 3; H225, H319, H336									
PENTANONE	107-87-9	SA7875000	203-528-1	≤ 1.0	200	250	(200)	705	NF	200	NA	1500		
					Flam. Liq. 2, Acute Tox. 4 (oral), Eye Irrit. 2, STOT SE 3; H225, H332, H319, H335									
METHYL ISOBUTYL KETONE	108-10-1	SA9275000	203-550-1	≤ 1.0	50	75	(50)	205	NF	100	NA	500		
					Flam. Liq. 2, Acute Tox. 4 (oral), Eye Irrit. 2, STOT SE 3; H225, H332, H319, H335									
DIMETHYLTOLYLAMINE	99-97-8	XU5803000	202-805-4	≤ 1.0	NA	NA	NF	NF	NF	NA	NA	NA		
					Acute Tox. 3, STOT-SE 2, Aq. Chronic 3; H301, H311, H331, H373, H412									

## 4. FIRST AID MEASURES

4.1	First Aid:	<p><b>Ingestion:</b> DO NOT INDUCE VOMITING. Contact 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><b>Eyes:</b> If product gets in the eyes, flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek medical attention.</p> <p><b>Skin:</b> Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt medical attention. Do not wear contaminated clothing until after it has been properly cleaned.</p> <p><b>Inhalation:</b> Remove victims to fresh air at once.</p>
4.2	Effects of Exposure:	<p><b>Ingestion:</b> If product is swallowed, may cause nausea, vomiting and/or diarrhea.</p> <p><b>Eyes:</b> Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p><b>Skin:</b> May be irritating to skin in some sensitive individuals.</p> <p><b>Inhalation:</b> None expected.</p>



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## 4. FIRST AID MEASURES – cont'd

4.3	Symptoms of Overexposure:	Symptoms of skin overexposure in individuals may include redness, itching, and irritation of affected areas. Overexposure in the eyes may cause redness, itching and watering. Irritation of the nose and throat, skin irritation, signs of nervous system depression (e.g., drowsiness, dizziness, loss of coordination and/or fatigue).
4.4	Acute Health Effects:	Mild to 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:	None known.
4.6	Target Organs:	Eyes, Skin
4.7	Medical Conditions Aggravated by Exposure:	None reported by the manufacturer.

<b>HEALTH</b>		<b>1</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>	

## 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. 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> ).	
5.2	Extinguishing Methods:	Water Fog, CO <sub>2</sub> , Halon (if permitted), Dry Chemical, Foam	
5.3	Firefighting Procedures:	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. First responders should wear eye protection. Structural firefighters must wear SCBAs and full protective equipment. Use water spray or fog to reduce or direct vapors. Water may not be effective in 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). 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 municipal sewers and open bodies of water.
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## 7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Avoid prolonged contact with the product. Avoid breathing vapors from 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 containers 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.



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## 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		
		<b>CHEMICAL NAME(S)</b>									
		150	200	150	200	NF	200	200	1700	150 TWA	
		200	250	(200)	705	NF	200	NA	1500		
		50	75	(50)	205	NF	100	NA	500		
8.2	Ventilation & Engineering Controls:	When working with large quantities of products, 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:	Depending on the use of this product, splash or safety glasses may be worn. If necessary, refer to U.S. OSHA 29 CFR §1910.133, Canadian standards, or the European Standard EN166.									
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:	Clear to pale yellow liquid
9.2	Odor:	Ester (Fruity) Odor
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	77 °C (170 °F) to 78 °C (172 °F)
9.7	Flashpoint:	1.11 °C (30 °F), TCC
9.8	Upper/Lower Flammability Limits:	2.0 (LEL) // 11.4 (UEL)
9.9	Vapor Pressure:	73 mmHg at 20°C (68°F)
9.10	Vapor Density:	NA
9.11	Relative Density:	0.9 (water = 1.0)
9.12	Solubility:	Slightly soluble
9.13	Partition Coefficient (log P <sub>ow</sub> ):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	< 5 cPs
9.17	Other Information:	9 g/L

## 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 irritation vapors and carbon oxide gases (e.g. CO, CO <sub>2</sub> ).
10.3	Hazardous Polymerization:	May occur if exposed to extremely high temperatures.
10.4	Conditions to Avoid:	High temperatures and incompatible substances.
10.5	Incompatible Substances:	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: NO
11.2	Toxicity Data:	This product has not been tested on animals to obtain toxicology data. There is toxicology data for some components of the product, which are found in scientific literature. This data is presented below: <u>Ethyl Acetate</u> : LD <sub>50</sub> (oral, rat) = 5,620 mg/kg; <u>Pentanone</u> : LD <sub>50</sub> (oral, rat) = 1,600 mg/kg; <u>Methyl Isobutyl Ketone</u> : LD <sub>50</sub> (oral, rat) = 2,080 mg/kg; <u>Dimethyltolylamine</u> : LD <sub>50</sub> (oral, rat) = 1,650 mg/kg		
11.3	Acute Toxicity:	See Section 4.4		
11.4	Chronic Toxicity:	See Section 4.5		
11.5	Suspected Carcinogen:	This product is not reported to cause carcinogenic effects in humans.		



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## 11. TOXICOLOGICAL INFORMATION – cont'd

11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.
	Mutagenicity:	This product is not reported to cause mutagenic effects in humans.
	Embryotoxicity:	This product is not reported to cause 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 4.2
11.8	Biological Exposure Indices:	NA
11.9	Physician Recommendations:	Treat symptomatically.

## 12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	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>Ethyl Acetate</u> : $K_{oc} = 0.73$ . Water solubility: 64,000 mg/L. Bioconcentration Factor = 4-14. Bioconcentration is not anticipated to be significant. This compound can be removed from contaminated environments from volatilization, and biodegradation. This compound's half-life in water is 6.1 hours. Aquatic Toxicity Estimates: $LC_{50}$ (Golden orfe, 96h): > 220 mg/L; $EC_{50}$ (Daphnia magna, 48h): > 500 mg/L; $EC_{50}$ (algae, 96h): > 360 mg/L
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; however, very large releases of this product may be harmful or fatal to overexposed aquatic life.

## 13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Dispose of in accordance with 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):	UN1173, ETHYL ACETATE, 3, II, (LTD QTY, IP ≤ 1.0 L)	
14.2	IATA (AIR)*:	ID8000, CONSUMER COMMODITY, 9 (IP VOL ≤ 0.5 L); or UN1173, ETHYL ACETATE, 3, II, (LTD QTY, IP ≤ 1.0 L)	
14.3	IMDG (OCN):	UN1173, ETHYL ACETATE, 3, II, (LTD QTY, IP ≤ 1.0 L)	
14.4	TDGR (Canadian GND):	UN1173, ETHYL ACETATE, 3, II, (LTD QTY, IP ≤ 1.0 L)	
14.5	ADR/RID (EU):	UN1173, ETHYL ACETATE, 3, II, (LTD QTY, IP ≤ 1.0 L)	
14.6	SCT (MEXICO):	UN1173, ETHYL ACETATE, 3, II, (CANT LTDA, IP ≤ 1.0 L)	
14.7	ADGR (AUS):	UN1173, ETHYL ACETATE, 3, II, (LTD QTY, IP ≤ 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:	SARA 304 (40 CFR Table 302.4) – <u>Ethyl Acetate</u> . This product does not contain any substances subject to SARA Title III (313) reporting and 40 CFR part 373.	
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:	<u>Ethyl Acetate</u> : 2,270 kg (5,000 lbs); <u>Methyl Isobutyl Ketone</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 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 Class B2, D2B (Flammable Liquid, Other Toxic Effects).	



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## 15. REGULATORY INFORMATION – cont'd

15.7	State Regulatory Information:	<p><u>Ethyl Acetate</u> is found on the following state criteria list(s): CA, DE, MA, MN, NJ, NY, PA, WA, and WI.</p> <p><u>Pentanone</u> is found on the following state criteria list(s): FL, MA, MN, PA, and WA.</p> <p><u>Methyl Isobutyl Ketone</u> is found on the following state criteria list(s): FL, MA, MN, NJ, PA, WA, and WI.</p> <p><u>Dimethyltolylamine</u> is found on the following state criteria list(s): NJ, and PA.</p> <p>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).</p> <p>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></p>
15.8	Other Requirements:	<p>This product is found on the following inventory lists: Australia - AICS, China – IECSC, Europe – ELINCS/EINEC, Japan – ENCS; Korea – KECL; New Zealand – NZIoC; Philippines – PICCS; USA – TSCA</p>

## 16. OTHER INFORMATION

16.1	Other Information:	<p><b>DANGER! HIGHLY FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE DIZZINESS OR DROWSINESS.</b></p> <p>Keep away from heat/sparks/open flames/hot surfaces – No smoking. Keep container tightly closed. Ground and bond containers and receiving equipment. Use non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water (or shower). 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. For specific first aid treatment (see section 4 of this Safety Data Sheet). In case of fire: use water fog, CO<sub>2</sub>, Halon (if permitted), dry chemical, or foam to extinguish. Store in a well-ventilated place. Keep cool.</p> <p><b>KEEP OUT OF REACH OF CHILDREN.</b></p>
16.2	Terms & Definitions:	<p>See last page of this Safety Data Sheet.</p>
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; Nitro Nail 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.</p>
16.4	Prepared for:	<p><b>Nitro Nail Systems</b> 1900 Jay Ell Dr. Richardson, TX 75081 USA Tel: +1 (855) 747-8584 <a href="http://www.nitronails.com">http://www.nitronails.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> 



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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 & REACTIVITY RATINGS:

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

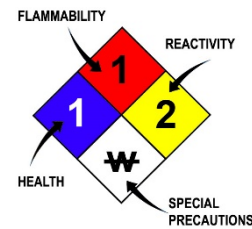
<b>HEALTH</b>
<b>FLAMMABILITY</b>
<b>PHYSICAL HAZARDS</b>
<b>PERSONAL PROTECTION</b>

### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

<b>FLAMMABILITY LIMITS IN AIR:</b>	
<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:

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

### PERSONAL PROTECTION RATINGS:

A		G	
B		H	
C		I	
D		J	
E		K	
F		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