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

SDS Revision: 1.0

SDS Revision Date: 1/2/2015

1. PRODUCT & COMPANY IDENTIFICATION						
1.1	Product Name:	MLP PEN				
1.2	Chemical Name:	Mixture				
1.3	Synonyms:	40128				
1.4	Trade Names:	Birchwood Casey Solid Film Lubricant; MLP Pen				
1.5	Product Uses & Restrictions:	Lubricant				
1.6	Distributor's Name:	Birchwood Casey, LLC				

			2. H	AZARDS	IDENT	IFIC	ATIC	NC							
2.1	Hazard Identification:	This produc	t is classified	as a HAZAR	DOUS S	UBSTA	NCE	and a	s DAI	NGEF	ROUS	GOO	os		
		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).													
		DANGER! HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES SERIOUS EYE IRRITATION.													
		MAY CAUSE DROWSINESS OR DIZZINESS.													
		Classification: Flam. Liq. 2; Eye Irrit. 2; STOTSE 3								lack					
				•		iauid a	nd vai	oor H	310 _	Caus	:AS SA	ious a	VA		
Hazard Statements (H): H225 – Highly flammable liquid and vapor. H319 – Causes serious eye irritation. H336 – May cause drowsiness or dizziness.  Precautionary Statements (P): P210 – Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking. P233 – Keep container tightly closed. P242 – Use non-sparking tools. P261 – Avoid breathing fume/vapor. P264 – Wash thoroughly after handling.								ious e	ус						
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			only outdoors												lacksquare
			P303 + P361 +												
			vith water or sh											<	•
			table for breath												• /
			338 – IF IN EY												
			esent and easy												•
			ce/attention. P												
			P403 + P235												
			tainer through I									•			
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		<del></del>	<del></del>	<u> </u>				O I KI			LIMITS II	J AIR (m	na/m³)		
						ACC	3IH		NOHSC			OSHA			
						pp		ppm		ppm					
								ES-	ES-	ES-		-			
HEN	IICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	TWA	STEL	PEAK		STEL			OTHER
1 3-D	IOXOLANE	646-06-0	NA	211-463-5	15-20	NA	NA	NF	NF	NF	NA	NA	NA		
.,0 _		Flam. Liq. 2;	H225												
METHON ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (															
METHOXYISOPROPYLACETATE		108-65-6	NA	203-603-9	15-20	NA	NA	50	274	NF	NA	NA	NA		
MET	HOXYISOPROPYLACETATE	Flam. Liq. 3;	H226									1			
				203-603-9	15-20 15-20	NA NA	NA NA	50 NF	274 NF	NF NF	NA NA	NA NA	NA NA		
	HOXYISOPROPYLACETATE OPOXYPROPANOL	Flam. Liq. 3; 1569-01-3	H226 NA	216-372-4	15-20	NA	NA	NF	NF	NF	NA	NA	NA		
2-PR	OPOXYPROPANOL	Flam. Liq. 3; 1569-01-3 67-64-1	H226 NA AL3150000	216-372-4	15-20							1			
2-PR		Flam. Liq. 3; 1569-01-3 67-64-1 Flam. Liq. 2;	H226 NA AL3150000 Eye Irrit. 2; STOT	216-372-4 200-662-2 SE 3, H225, H3	15-20 10-15 19, H336	NA 1800	NA NA	NF 1185	NF 2375	NF NF	NA 2400	NA NA	NA 2500		
2-PR	OPOXYPROPANOL	Flam. Liq. 3; 1569-01-3 67-64-1 Flam. Liq. 2; 1317-33-5	H226 NA AL3150000 Eye Irrit. 2; STOT QA4697000	216-372-4	15-20	NA	NA	NF	NF	NF	NA	NA	NA		
2-PR	OPOXYPROPANOL	Flam. Liq. 3; 1569-01-3 67-64-1 Flam. Liq. 2; 1317-33-5 Acute Tox. 4	H226 NA AL3150000 Eye Irrit. 2; STOT QA4697000 ; H332	216-372-4 200-662-2 SE 3, H225, H3 215-263-9	15-20   10-15   19, H336   10	1800 NA	NA NA	NF 1185 NF	NF 2375 NF	NF NF	NA 2400	NA NA NA	NA 2500		
2-PR ACE	OPOXYPROPANOL  TONE  YBDENUM DISULFIDE	Flam. Liq. 3; 1569-01-3 67-64-1 Flam. Liq. 2; 1317-33-5	H226 NA AL3150000 Eye Irrit. 2; STOT QA4697000	216-372-4 200-662-2 SE 3, H225, H3	15-20 10-15 19, H336	NA 1800	NA NA	NF 1185	NF 2375	NF NF	NA 2400	NA NA	NA 2500		
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PRACE MOL	OPOXYPROPANOL  TONE  YBDENUM DISULFIDE  HENOL A POLYMER	Flam. Liq. 3; 1569-01-3 67-64-1 Flam. Liq. 2; 1317-33-5 Acute Tox. 4 25036-25-3	H226  NA  AL3150000  Eye Irrit. 2; STOT  QA4697000  ; H332  NA  DO NOT IND  Control Center medical atten risk of aspiration	216-372-4    200-662-2   SE 3, H225, H3   215-263-9    NA    FIRST Al  UCE VOMITIN  er or local emetion. If vomitinion.	15-20   10-15   19, H336   10   5-10   <b>D ME</b> A	NA  1800  NA  NA  NA  NA  NA  NA  NA  NA  NA	NA NA NA NA RES on Cole num	NF 1185 NF NF Ontrol (nber folly, kee	NF 2375 NF NF Center assisp viction	NF NF Or the stance m's h	NA 2400 NA NA NA e neare and lead lo	NA N	NA 2500 NA NA ison ctions. (forward)	Seek	reduce th
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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 1/2/2015 4. FIRST AID MEASURES - cont'd 42 Effects of Exposure: If product is swallowed, may cause nausea, temporary gastrointestinal irritation. Vomiting and/or diarrhea. Ingestion: Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and Eyes: May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in Skin: some sensitive individuals. Inhalation: None expected. 4.3 Symptoms of Overexposure: Nausea, intestinal discomfort, vomiting and/or diarrhea. Ingestion: Eyes: Overexposure in eyes may cause redness, itching and watering. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. Frostbite Skin: like symptoms. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some individuals. 4.4 Acute Health Effects: Non-irritating when used as directed. Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea. Chronic Health Effects: 4.5 None reported by the manufacturer. 46 Target Organs: Eyes, Skin Medical Conditions Aggravated by Exposure: 4.7 Pre-existing dermatitis, other skin conditions, and disorders of the HEALTH 2 target organs (eyes). **FLAMMABILITY** 3 PHYSICAL HAZARDS 0 PROTECTIVE EQUIPMENT В **EYES** SKIN 5. FIREFIGHTING MEASURES 5.1 Fire & Explosion Hazards: This product is not flammable. However, if involved in a fire, this product may decompose at high temperatures to form toxic gases (e.g., CO, COx). Extinguishing Methods: 5.2 Water, Foam, CO<sub>2</sub>, Dry Chemical. Use water spray to cool unopened containers. 5.3 Firefighting Procedures: Fight fires as for surrounding materials. 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. Avoid spraying water directly into storage containers because of danger of boil-over. 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 Spills: Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective 6 1 Equipment. For small spills (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. For large spills ≥ 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 municipal sewers and open bodies of water. 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 wellventilated 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 72 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.



Teratogenicity:

Reproductive Toxicity

Page 3 of 6 SAFETY DATA SHEET **BC-015** Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 1/2/2015 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 8.1 Exposure Limits: ACGIH NOHSC OSHA OTHER ppm (mg/m<sup>3</sup>) CHEMICAL NAME(S) TI V STFI ES-TWA ES-STEL PFAK PFI STEL IDI H METHOXYISOPROPYLACETATE NA NA NA 50 274 NF NA NA **ACETONE** 1800 NA 1185 2375 NF 2400 NA 2500 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 Eve Protection: Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants. If anticipated that prolonged & repeated skin contact will occur during use of this product, wear 8.5 Hand Protection: 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. Body Protection: 8.6 No apron required when handling small quantities. 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. 9. PHYSICAL & CHEMICAL PROPERTIES Appearance: 9.1 liquid 9.2 Odor: Strong solvent odor 9.3 Odor Threshold: NA 9.4 pH: NΑ 9.5 Melting Point/Freezing Point: NA 9.6 Initial Boiling Point/Boiling NA Range: 9.7 Flashpoint: -20 ± 2 °C (-4 ± 2 °F) SETA Flash 9.8 Upper/Lower Flammability NA Limits: 9.9 Vapor Pressure: NA 9.10 Vapor Density: NA Relative Density: 9.11 1.186 9.12 Solubility: NA 9.13 Partition Coefficient (log Pow): NA 9.14 Autoignition Temperature NA 9.15 Decomposition Temperature: NA 9.16 Viscosity NA 9.17 Other Information VOC: 5.0406 lb/g 10. STABILITY & REACTIVITY 10.1 Stability: Relatively stable under ambient conditions when stored properly. 10.2 Hazardous Decomposition If exposed to extremely high temperatures, products of thermal decomposition may include irritating vapors and toxic Products: 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. Extreme heat and ignition sources. 11. TOXICOLOGICAL INFORMATION Routes of Entry: Inhalation: YES Absorption: YES 11.1 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 not presented in this document 11.3 Acute Toxicity: Moderate irritation to eyes and skin near affected areas 11.4 Chronic Toxicity: This material may aggravate any pre-existing skin condition (e.g., dermatitis) Suspected Carcinogen: 11.5 No. Reproductive Toxicity 11.6 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.

This product is not reported to cause teratogenic effects in humans.

This product is not reported to cause reproductive effects in humans.



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 1/2/2015 11. TOXICOLOGICAL INFORMATION - cont'd 11.7 Irritancy of Product: The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure. 11.8 Biological Exposure Indices: Physician Recommendations: 11.9 Treat symptomatically. 12. ECOLOGICAL INFORMATION 12.1 Environmental Stability: There is no specific data available for this product. 12.2 Effects on Plants & Animals: There are no specific data available for this product. Effects on Aquatic Life: 12.3 This material should be kept out of sewage and drainage systems and all bodies of water. Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic life. 13. DISPOSAL CONSIDERATIONS 13.1 Waste Disposal: Waste disposal must be in accordance with appropriate Federal, state, and local regulations Special Considerations: 13.2 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. 49 CFR (GND): UN1263, PAINT RELATED MATERIAL, 3, II (LTD QTY - IP VOL ≤ 5.0 L); or CONSUMER COMMODITY, ORM-D - until 01/01/2021 14.2 IATA (AIR): ID8000, CONSUMER COMMODITY, 9 (IP VOL ≤ 0.5 L); or UN1263, PAINT RELATED MATERIAL, 3, II (LTD QTY - IP VOL ≤ 1.0 L) IMDG (OCN): 14.3 UN1263, PAINT RELATED MATERIAL, 3, II (LTD QTY - IP VOL ≤ 5.0 L) TDGR (Canadian GND): 14.4 UN1263, PAINT RELATED MATERIAL, 3, II (LTD QTY - IP VOL ≤ 1.0 L); or "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (IP VOL ≤ 1.0 L) 14.5 ADR/RID (EU): UN1263, PAINT RELATED MATERIAL, 3, II (LTD QTY - IP VOL ≤ 1.0 L) 14.6 SCT (MEXICO): UN1263, PINTURA MATERIAL RELACIONADO, 3, II (CANTIDAD LIMITADA - IP VOL ≤ 1.0 L) 14.7 ADGR (AUS): UN1263, PAINT RELATED MATERIAL, 3, II, LTD QTY (IP VOL ≤ 1.0 L) 15. REGULATORY INFORMATION SARA Reporting 15.1 This product does not contain any chemicals subject to the SARA Title III, section 313 reporting requirements. Requirements 15.2 SARA Threshold Planning There are no specific Threshold Planning Quantities for the components of this product. Quantity: 15.3 TSCA Inventory Status The components of this product are listed on the TSCA Inventory 15.4 CERCLA Reportable Quantity Acetone: 2270 kg (5000 lbs) (RQ): 15.5 Other Federal Requirements: 15.6 Other Canadian Regulations: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. Class B2 Flammable Liquid. 15.7 State Regulatory Information: Acetone is found on the following state criteria lists: California OSHA Hazardous Substances List (CA), Delaware Air Quality Management List (DE), Massachusetts Hazardous Substances List (MA), 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). 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).



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 1/2/2015 15. REGULATORY INFORMATION - cont'd 15.8 Other Requirements: The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: 1,3-Dioxolane: Flammable (F) Risk Phrases (R): 11 - Extremely flammable. Safety Phrases (S): 2-16 - Keep out of reach of children. Keep away from sources of ignition - No smoking. Methoxyisopropyl Acetate: Flammable (F) Risk Phrases (R): 10 - Flammable. Safety Phrases (S): 2 - Keep out of reach of children. Acetone: Highly Flammable (F+). Risk Phrases (R): 11-36-66-67 - Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness. Safety Phrases (S): 9-16-23-33 - Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. Do not breathe gas, fumes, vapor or spray. Take precautionary measures against static discharges. 16. OTHER INFORMATION 16.1 Other Information: DANGER! HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE DROWSINESS OR DIZZINESS. Use only as directed. Keep out of reach of children. Wear suitable protective clothing. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). If skin irritation occurs: get medical advice/attention. KEEP LOCKED UP AND OUT OF REACH OF CHILDREN. Terms & Definitions: 16.2 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 & Birchwood Casey'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: BIRCHWOOD 16.5 Prepared by:



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

SDS Revision: 1.0

SDS Revision Date: 1/2/2015

#### **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:**

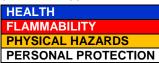
CAS No.	Chemical Abstract Service Number					
EXPOSURE LIMITS IN AIR:						
ACGIH	American Conference on Governmental Industrial Hygienists					
С	Ceiling Limit					
ES	Exposure Standard (Australia)					
IDLH	Immediately Dangerous to Life and Health					
OSHA	U.S. Occupational Safety and Health Administration					
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.

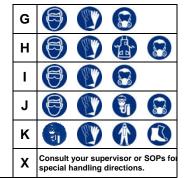
#### HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



#### PERSONAL PROTECTION RATINGS:

Α			
В			
С		型	
D			
E			
F		4	





Splash Goggles







Synthetic Apro











Airline Hood/Mask or SCBA

#### OTHER STANDARD ABBREVIATIONS:

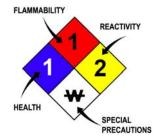
ML	Maximum Limit		
mg/m3 milligrams per cubic meter			
NA	Not Available		
ND	Not Determined		
NE	Not Established		
NF	Not Found		
NR	No Results		
ppm	parts per million		
SCBA	Self-Contained Breathing Apparatus		

#### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:						
Autoignition	Minimum temperature required to initiate combustion in air with no other					
Temperature	source of ignition					
LEL Lower Explosive Limit - lowest percent of vapor in air, by volume, that explode or ignite in the presence of an ignition source						
						UEL
	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
₩	Use No Water
ОХ	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>io</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>Io</sub> , LD <sub>Io</sub> , & LD <sub>o</sub> or	Lowest dose (or concentration) to cause lethal or toxic effects
TC, TC <sub>o</sub> , LC <sub>lo</sub> , & LC <sub>o</sub>	
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
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:

0	<b>(</b>	<b>(2)</b>	(3)	$\odot$	(4)		
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:

	(* ** ** *)								
V. **		No.	¥		<b>%</b>	×	×		
С	E	F	N	0	Т	Xi	Xn		
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful		

#### CLP/GHS (1272/2008/EC) PICTOGRAMS:

			$\Diamond$			$\Diamond$		¥2>
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment