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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 3.1 SDS Revision Date: 2/8/2016 1. PRODUCT & COMPANY IDENTIFICATION 1.1 Product Name: NICOLE BY OPI – STRENGTHENER PLUS 12 Chemical Name Solvent Mixture 1.3 Synonyms NA 14 Trade Names NI245 1.5 Product Use: Cosmetic 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 Hazard Identification: 2.1 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. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. MAY CAUSE DROWSINESS OR DIZZINESS. Classification: Flam. Liq. 2; Skin Sens. 1A; Eye Irrit. 2B; STOT SE 3 Hazard Statements (H): H225 - Highly flammable liquid and vapor. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness. Precautionary Statements (P): P210 - Keep away from heat/sparks/open flame/hot surfaces - No Smoking. P233 - Keep container tightly closed. P243 - Take precautionary measures against static discharge. P261 - Avoid breathing dust/fume/gas/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/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). 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) ACGIH NOHSC OSHA ppm ppm ppm ES-ES-ES-STEL PFI тιν STEL IDLH OTHER CHEMICAL NAME(S) CAS No. RTECS No. EINECS No. % TWA STEL PEAK 2000 400 TWA 141-78-6 AH5425000 205-500-4 30-60 400 400 200 400 NF NA NA ETHYL ACETATE Flam. Liq. 2; Eye Irrit. 2; STOT SE 3; H225, H319, H336 200 1700 150 TWA 123-86-4 AF7350000 204-658-1 15-40 150 200 150 200 NF 200 BUTYL ACETATE Flam, Lig. 3: STOT SE 3: H226, H336 QW0970000 7-13 400 400 400 200 NF NA NA 2000 400 TWA 9004-70-0 NA NITROCELLULOSE Flam. Liq. 2; H225 130353-62-7 NA 3-7 NF NF NA NA NA NF NA NA NA TOSYLAMIDE/EPOXY RESIN NA 201-067-0 NA NA 77-90-7 1-5 NF NF NF NA NA NA ACETYL TRIBUTYL CITRATE 67-63-0 NT8050000 200-661-7 1-5 400 500 400 500 NF 400 500 2000 400 TWA ISOPROPYL ALCOHOL Flam. Liq. 2; Skin Irrit. 3; Eye Irrit. 2A; STOT SE 3; H225, H316, H319 71011-24-0 NA NA 0.1-1 NA NA NF NF NF NA NA 15 DUST STEARALKONIUM BENTONITE 13463-67-7 XR227500 236-675-5 0.1-1 NA NA NF NF NF NA NA NA CI 77891 (TITANIUM DIOXIDE) CARTHAMUS TINCTORUS NA NA NA NF NF NF NA NA NA NA NA 0.1-1 (SAFFLOWER) SEED OIL 1934-21-0 UQ6400000 217-699-5 NA NF NA NA NA 0.1-1 NA NF NF CI 19140 (YELLOW 5) 1309-37-1 NO740000 215-168-2 0.1-1 NA NA NF NF NF NA NA NA CI 77499 (IRON OXIDE) 5858-81-1 QJ1975000 227-497-9 0.1-1 NA NA NF NF NF NA NA NA CI 15850 (RED 6 LAKE)

7727-43-7

CI 77120 (BARIUM SULFATE)

FH8891000

215-724-4

≤ 1.0

NA

NA NF NF

NF

NA

NA

NA



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			4. FIRST AID MEA	SURES					
 4.1 First Aid: Ingestion: Ingestion: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give was unconscious person. Contact the nearest Poison Control Center or local emergency num estimate of the time at which the material was ingested and the amount of the subsequences. Eves: Splashes are not likely; however, if product gets in the eyes, flush with copious amou water for at least 15 minutes. If irritation occurs, contact a physician. 								or milk to an Provide an	
								of lukewarm	
		washing o	occurs and product is on the f the effected area with soa immediately.						
		Inhalation: Remove v	ictim to fresh air at once.						
4.2	Effects of Exposure:	Ingestion: If product depression	is swallowed, may cause	nausea, vomitin	ng and/or c	liarrhea and	central nerv	ous system	
		Eyes: Irritating to	the eyes. Symptoms of over	rexposure may in	clude redne	ss, itching, in	itation and wa	atering.	
		Skin: May be irr	tating to skin in some sensitiv	/e individuals, esp	pecially afte	r prolonged a	nd/or repeate	d contact.	
		Inhalation: Vapors of this product may be slightly irritating to the nose, throat and other tissues of the respirator system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficult breathing. Inhalation of vapors exceeding the levels listed in Section 3 (Composition and Ingredier Information) can cause central nervous system depression (e.g., drowsiness, dizziness, headaches							
4.3	Symptoms of Overexposure:		erexposure in individuals r ay cause redness, itching an		lness, itchir	ng, and irrit	ation of affe	cted areas.	
4.4	Acute Health Effects:		on to eyes and skin near affe		ditionally, hig	h concentrat	ons of vapor	s can cause	
4.5	Chronic Health Effects:	None known.							
4.6	Target Organs:	Eyes, skin, respiratory s	ystem.						
4.7	Medical Conditions Aggravated by Exposure:		other skin conditions, and on, and respiratory system).	disorders of the				1 3 0 B	
					EYES	SKIN			
						U.I.I.			
		5.	FIREFIGHTING ME	ASURES					
5.1	Fire & Explosion Hazards:		AMMABLE LIQUID AND V		way from he	eat, lit cigare	tes,		
5.2	Extinguishing Methods:), Dry Chemical, Foam, as au	ithorized.					
5.3	Firefighting Procedures:	This product is a Class and decompose to prod travel to a source of igni First responders should protective equipment.	IB fammable liquid. When ir luce carbon oxides. Vapors tion and flash back to a leakir I wear eye protection. Strue Use a water spray or fog to iguishing a fire involving this p	nvolved in a fire, the of this product a ng or open contain ctural firefighters reduce or direct	are heavier t ner. must wear	than air and SCBAs and	nay full	30	
	1		IDENTAL RELEAS						
6.1	Spills:	Equipment. For <u>small spills</u> (e.g., Maximize ventilation (c absorbent material and local, state and federal soap. Remove any con For <u>large spills</u> (e.g., ≥ material (e.g., sand or e recovery or disposal and	c) l or leak, individuals invol < 1 gallon (3.8 L)) wear ap pen doors and windows) ar place into appropriate closed regulations. Wash all affect taminated clothing and wash 1 gallon (3.8 L)), deny entr arth). Use ONLY non-sparki d solid diking material to sepa cted skin areas with soap an	propriate person of secure all so container(s) for ed areas and out thoroughly before y to all unprotect ng tools for recover rate containers for	nal protectiv purces of ig disposal. I utside of con e reuse. cted individu very and cle or proper dis	ve equipmen nition. Rem Dispose of pro- ntainer with p nals. Dike an anup. Trans sposal. Remo	(e.g., goggl ove spilled n operly in acco lenty of warn ad contain sp fer liquid to co ove contamina	les, gloves). naterial with ordance with n water and will with inert ontainers for ated clothing	



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		7. HANDLING	6 & S	TOR	AGE I	NFOR	MATI	ON			
7.1	7.1 Work & Hygiene Practices: Avoid prolonged contact with the product. Avoid breathing vapors of this product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product.										
7.2	^{7.2} Storage & Handling: Keep this material away from heat, sparks and open flame. Open containers slowly on a stable surface. Keep container closed tightly when not in use. Empty container may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, other light sources, or sources of intense heat. Store away from incompatible materials (See Section 10).										
7.3											Empty containers may
		8. EXPOSURE CON	TRO	LS &	PERS	ONA	L PRO	TEC	TION		
8.1	Exposure Limits:		AC	GIH		NOHSC			OSHA		OTHER
ppm (mg/m ³) ES- ES- ES-					ES- PEAK	PEL	STEL	IDLH			

		CHEMICAL NAME(S)	TLV	STEL	TWA	STEL	PEAK	PEL	STEL	IDLH					
		ETHYL ACETATE	400	400	200	400	NF	NA	NA	2000	400 TWA				
		BUTYL ACETATE	150	200	150	200	NF	200	200	1700	100 NIOSH				
		NITROCELLULOSE	400	400	400	200	NF	NA	NA	2000	400 TWA				
		ISOPROPYL ALCOHOL	400	500	400	500	NF	400	500	2000	400 TWA				
		STEARALKONIUM BENTONITE	NA	NA	NF	NF	NF	NA	NA	15	DUST				
8.2	Ventilation & Engineering Controls:	When working with large qua Ensure that an eyewash station		•					· • •		aust ventilation, fans).				
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:	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.													
8.5	Hand Protection:	AVOID SKIN CONTACT DUE TO SENSITIZING POTENTIAL. 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.									l use.				
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.								ssary,					

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Viscous liquid
9.2	Odor:	ND
9.3	Odor Threshold:	ND
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	ND
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	- 4 °C (24 °F) estimated
9.8	Upper/Lower Flammability Limits:	NE
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	NA
9.11	Relative Density:	0.977 – 1.0008
9.12	Solubility:	Insoluble in water
9.13	Partition Coefficient (log Pow):	NA
9.14	Autoignition Temperature:	ND
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	1,000 – 3,000 cPs
9.17	Other Information:	NA



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		10. STABILITY & REACTIVITY						
10.1	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 (e.g., CO, CO ₂).						
10.3	Hazardous Polymerization:	May occur, if exposed to extremely high temperatures.						
10.4	Conditions to Avoid:	High temperatures, direct sunlight, sources of heat and 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), nitrates, 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:	available for some of the components of the product and is presented below:								
		Ethyl Acetate: LD ₅₀ (oral, rat) = 5,620 mg/k	g; LD ₅₀ (oral, mouse)) = 4,100 mg/kg; L(C ₅₀ (inh-6h, rat) = 16	5,000 ppm				
11.3	Acute Toxicity:	See Section 4.4								
11.4	Chronic Toxicity:	See Section 4.5								
11.5	Suspected Carcinogen:	This product contains <u>Ethyl Acetate</u> and <u>Isopropyl Alcohol</u> , which are not carcinogenic to humans, but are listed as Group 3 carcinogens by the IARC.								
11.6	Reproductive Toxicity:	This product is not reported to cause repro-	ductive toxicity in hum	nans.						
	Mutagenicity:	This product is not reported to produce mut	tagenic effects in hum	nans.						
	Embryotoxicity:	This product is not reported to produce em	bryotoxic effects in hu	imans.						
	Teratogenicity:	This product is not reported to cause terato	genic effects in huma	ans.						
	Reproductive Toxicity:	This product is not reported to cause repro-	ductive effects in hum	nans.						
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:	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.							
		<u>Butyl Acetate</u> : $K_{OC} = 1.82$. Water solubility: 120 parts H_2O at 25 °C (77 °F). 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.							
		$\frac{\text{Isopropyl Alcohol}}{\text{of plant and animal wastes.}} \text{ When released on land or water, it is apt to volatilize and biodegrade.} The estimated half-life in water is 5.4 days. Isopropyl alcohol is not expected to bioconcentrate.}$							
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:	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)							



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		14. TRANSPORTATION INFORMATION
The	pasic description (ID Number	proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information
		/ICAO, IMDG and the CTDGR.
14.1	49 CFR (GND):	UN1263, PAINT, 3, II, LTD QTY (IP VOL ≤ 1.0 L) or
		CONSUMER COMMODITY, ORM-D – until 01/01/2021
14.2	IATA (AIR):	ID8000, CONSUMER COMMODITY, 9 (IP VOL ≤ 0.5 L)
		UN1263, PAINT, 3, II (IP VOL ≤ 1.0 L)
14.3	IMDG (OCN):	UN1263, PAINT, 3, II, LTD QTY (IP VOL ≤ 1.0 L) UN1263, PAINT, 3, II, LTD QTY (IP VOL ≤ 1.0 L); or "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L)
14.4	TDGR (Canadian GND):	
14.4	TDGR (Canadian GND).	UN1263, PAINT, 3, II, LTD QTY (IP VOL ≤ 1.0 L); or "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L)
14.5	ADR/RID (EU):	UN1263, PAINT, 3, II, LTD QTY (IP VOL ≤ 1.0 L)
	007 (15)(00)	
14.6	SCT (MEXICO):	UN1263, PINTURA, 3, II, CANTIDAD LIMITADA (IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN1263, PAINT, 3, II, LTD QTY (IP VOL ≤ 1.0 L) *
* This	s product may also be shippe	d as an Excepted Quantity (Inner Package Volume ≤ 30 mL, Total Quantity ≤ 500 mL per Outer Package)
	1	15. REGULATORY INFORMATION
15.1	SARA Reporting Requirements:	This product contains <u>Isopropanol</u> , a substance subject to SARA Title III, Section 313 reporting requirements. This product contains <u>Ethyl Acetate</u> , a substance that is subject to SARA Title III, Section 304 reporting.
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.
15.4	CERCLA Reportable Quantity (RQ):	Ethyl Acetate: 2,270 kg (5,000 lbs); Butyl Acetate: 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
15.6	Other Canadian Regulations:	(Cosmetics). This product has been classified according to the hazard criteria of the CPR and the Safety Data
10.0		Sheet 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. WHMIS B2, D2B (Flammable Liquid, Other Toxic Effects)
15.7	State Regulatory Information:	Butyl Acetate is found on the following state criteria lists: California OSHA Hazardous Substances List (CA), Delaward
		Air Quality Management List (DE), Massachusetts Hazardous Substances List (MA), New Jersey Right-to-Know List
		(NJ), New York List of Hazardous Substances (NY), Pennsylvania Right-to-Know List (PA), and Washington Permissible
		Exposures List for Air Contaminants (WA), Wisconsin Hazardous Substances List (WI).
		Ethyl Acetate is found on the following state criteria lists: CA, DE, MA, MN, NJ, NY, PA, and WA.
		Isopropanol is found on the following state criteria lists: CA, MA, MN, NJ, PA, and WA.
		Nitrocellulose is found on the following state criteria lists: DE, MA, and PA.
		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 Substance
		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
45.0	Other Demulation	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:
		Ethyl Acetate: Flammable (F). Risk Phrases (R): 11-36/37/38 – Highly flammable. Irritating to
		eyes, respiratory system and skin. <u>Safety Phrases</u> (S): 2-16-23-29-33 – Keep out of the reach of
		children. Keep away from sources of ignition - No smoking. Do not breathe gas, fumes, vapor or
		spray. Do not empty into drains. Take precautionary measures against static discharges.
		Butyl Acetate: Flammable (F). Risk Phrases (R): Flammable. Safety Phrases (S): 9-16-33 - Keep
		container in a well-ventilated place. Keep away from sources of ignition - No smoking. Take
		precautionary measures against static discharges.
		Isopropanol: Flammable (F). <u>Risk Phrases</u> (R): 11-36/37 – Highly flammable. Irritating to eyes and
		respiratory system. <u>Safety Phrases</u> (S): 2-7-16-24/25/26 – Keep out of the reach of children. Keep
		container tightly closed. Avoid contact with skin and eyes. In case of contact with eyes, rinse
		immediately with plenty of water and seek medical advice.



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		16. OTHER INFORMATION							
16.1									
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							



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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

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:

Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood CPR and provide oxygen to the body.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

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:

Α					G				
В					н			E,I	
С					I				
D	B				J			Î	
Е					κ			Ŕ	
F	8				x	Consult y special h	our sup andling	ervisor or directions	SOPs for
Sa	Safety Glasses Splash Goggles					Shield 8 tive Eyew		Glove	es
Boots		Synthetic Ap	oron	Protect &	tive Cloth	ing	Dust Respirator		
								1	

8	8		
Safety Glasses	Splash Goggles	Face Shield & Protective Eyewear	Gloves
		R A	
Boots	Synthetic Apron	Protective Clothing & Full Suit	Dust Respirator
			Î
I Face Respirator	Dust & Vapor Half- Mask Respirator	Full Face Respirator	Airline Hood/Mask or SCBA

OTHER STANDARD ABBREVIATIONS:

Full

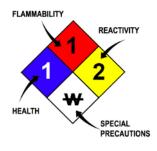
NA	Not Available			
NR	No Results			
NE	NE Not Established			
ND	Not Determined			
ML	Maximum Limit			
SCBA	Self-Contained Breathing Apparatus			

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILI	AMMABILITY 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
ох	Oxidizer
TREFOIL	Radioactive



TOXICOLOGICAL INFORMATION:

LD ₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals		
	S		
LC 50	Lethal concentration (gases) which kills 50% of the exposed animal		
ppm	Concentration expressed in parts of material per million parts		
TD _{Io}	Lowest dose to cause a symptom		
TCLo	Lowest concentration to cause a symptom		
TD _{Io} , LD _{Io} , & LD _o or	Lowest dose (or concentration) to cause lethal or toxic effects		
TC, TC _o , LC _{lo} , & LC _o			
IARC	International Agency for Research on Cancer		
NTP	National Toxicology Program		
RTECS	Registry of Toxic Effects of Chemical Substances		
BCF	Bioconcentration Factor		
TLm	Median threshold limit		
log Kow or log Koc	Coefficient of Oil/Water Distribution		

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System				
DOT	U.S. Department of Transportation				
тс	Transport Canada				
EPA	U.S. Environmental Protection Agency				
DSL	DSL Canadian Domestic Substance List				
NDSL	NDSL Canadian Non-Domestic Substance List				
PSL	PSL Canadian Priority Substances List				
TSCA	U.S. Toxic Substance Control Act				
EU	EU European Union (European Union Directive 67/548/EEC)				
WGK	Wassergefährdungsklassen (German Water Hazard Class)				

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

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Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compress ed	Flammabl e	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

EC (67/548/EEC) INFORMATION:

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с	E	F	Ν	0	т	Xi	Xn
Corrosive	Explosive	Flammabl e	Harmful	Oxidizing	Toxic	Irritant	Harmful

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

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GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment