SAFETY DATA SHEET

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SDS-379 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 8/24/2017 1. PRODUCT & COMPANY IDENTIFICATION 1.1 OPI CHROME EFFECTS POWDER - TIN MAN CAN Product Name 1.2 Chemical Name: NA 1.3 NA Synonyms 1.4 CP001 1.5 Product Use Professional or Sundry Use Only 1.6 Distributor's Name: OPI Products, Inc. 13034 Saticoy Street, No. Hollywood, CA 91605 USA 1.7 Distributor's Address: Emergency Phone: CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 16377) 1.8 Business Phone / Fax: +1 (818) 759-2400 / +1 (818) 759-5776 1.9 2. HAZARDS IDENTIFICATION 21 Hazard Identification: This product is classified as a hazardous substance but not as dangerous goods according to the classification criteria of NOHSC: 1088 (1999) and ADG Code (Australia). WARNING! CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. Classification: Skin Irrit. 2; Eye Irrit. 2B; STOT SE 3 2.2 Label Elements: Hazard Statements (H): H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation. Precautionary Statements (P): P261 - Avoid breathing dusts. P264 - Wash thoroughly after handling. P280 - Wear protective gloves/protective clothing/ eye protection/ face protection. P271 -Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 - Call a POISON CENTER/doctor if you feel unwell. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P321 - Specific treatment. See this container label or Section 4 of this SDS. P362+P364 - Take off contaminated clothing and wash before reuse. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up. P501 - Dispose of contents/container through licensed treatment, storage or disposal facility (TSDF). 2.3 Other Warnings: The product is a fine powder, and may cause a slipping and falling hazard if spilled. In the event of an exposure or medical inquiry involving this product, please contact a physician or local poison control center, who may seek advice from the U.S. manufacturer, and show them this SDS. KEEP OUT OF REACH OF CHILDREN. NOTE: This product can expose you to chemicals including Titanium Dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov. 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m3) ACGIH NOHSC **OSHA** maa ppm ppm ES-ES-CHEMICAL NAME(S) CAS No. RTECS No. EINECS No. TLV STEL TWA STEL PEAK PEL STEL IDLH OTHER ALUMINUM CALCIUM SODIUM 1344-01-0 NA 215-685-3 60-100 NA NA NF NF NF NA NA NA SILICATE Skin Irrit. 2; Eye Irrit. 2A; STOT-SE 3; H315, H319, H335 13463-67-7 XR2275000 236-675-5 10 NA NF NF NA 5000 NA RESP 5 CI 77891 (TITANIUM DIOXIDE) 18282-10-5 XQ400000 242-159-0 0.1-1 NA NA NF NF NF NA NA NA TIN OXIDE STOT SE 3; H335 VW350000 231-131-3 0.1-1 (0.1) NA 0.01 NF NF NA NA 10 (0.1) TRGS900 7440-22-4 **SILVER** Skin Irrit. 2; Eye Irrit. 2; Aquatic Acute 1; H317, H319, H400 4. FIRST AID MEASURES 4.1 First Aid: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk Ingestion: IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. 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 If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Open Eyes: and close eyelid(s) to ensure thorough irrigation. If irritation persists seek immediate medical attention. If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough Skin: washing of the affected area with soap and water. Remove contaminated clothing and wash thoroughly before reuse. If irritation, redness or swelling persists, contact a physician immediately. Inhalation: Remove victim to fresh air.

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		4. FIRST AID MEASURES – cont'	a			
4.2	Effects of Exposure:	Ingestion: May cause irritation in mouth and throat. May cause nausea, vomiting and diarrhea. Eyes: May cause irritation, redness, stinging and tearing. Skin: May cause irritation, redness at the site of contact. Allergic contact dermatitis is possible with prolonged or repeated contact. Inhalation: Prolonged exposure may cause irritation in nose and throat with chest discomfort, coughing and difficult breathing. Excessive inhalation of dust may result in sensitization and irritation to respiratory tract. Mat cause asthma-like symptoms in some sensitive individuals.				
4.3	Symptoms of Overexposure:	Symptoms of skin overexposure may include redness, itching, and irrita cause redness, itching and watering. The product can cause allergic sprolonged or repeated exposure.	ation of affected			
1.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Addition drowsiness, dizziness, headaches and nausea.	onally, high co	oncentrations of	vapors c	an caus
4.5	Chronic Health Effects:	No long-term health effects are known.				
1.6	Target Organs:	Eyes, Skin, Respiratory System.				
.7	Medical Conditions	Pre-existing dermatitis, other skin conditions, and disorders of the	HEALTH			1
	Aggravated by Exposure:	target organs (eyes, skin, and respiratory system). Preclude from	FLAMMAB	ILITY		1
		exposure those individuals that are susceptible to dermatitis, asthma or bronchitis.	PHYSICAL			1
		of brottomas.		VE EQUIPMEN	ЛT	В
				SKIN	<u> </u>	0
			ETES .	SKIN		
		5. FIREFIGHTING MEASURES				
	Fire & Explosion Hazards:	Keep away from excessive heat, open flames, sparks, and other p However, if involved in a fire, this product may decompose at high tem (silver fumes).				
5.2	Extinguishing Methods:	Carbon Dioxide, Dry Chemical, Water Spray.				1
5.3	Firefighting Procedures:	Keep containers cool until well after the fire is out. Prevent runoff from				
		entering sewers, drains, drinking water supply, or any natural waterway full face, self-contained breathing apparatus (MSHA/NIOSH approximpervious protective clothing.				/
		full face, self-contained breathing apparatus (MSHA/NIOSH approimpervious protective clothing.	ved or the ed			
6.1	Spills:	full face, self-contained breathing apparatus (MSHA/NIOSH approimpervious protective clothing. 6. ACCIDENTAL RELEASE MEASU Before cleaning any spill or leak, individuals involved in spill cleat Equipment.	RES	quivalent) and ar appropriate f		
6.1	Spills:	full face, self-contained breathing apparatus (MSHA/NIOSH approimpervious protective clothing. 6. ACCIDENTAL RELEASE MEASU Before cleaning any spill or leak, individuals involved in spill clea	RES anup must we material with coordance with arm water and ed individuals. or proper dispo	ar appropriate F equipment (e.g. absorbent mate local, state and soap. Remove Transfer materi sal. Remove co	, goggles rial and prederal research and contractions and	, gloves place int gulations taminate ainers fo d clothin
3.1	Spills:	full face, self-contained breathing apparatus (MSHA/NIOSH approimpervious protective clothing. 6. ACCIDENTAL RELEASE MEASU Before cleaning any spill or leak, individuals involved in spill cleat Equipment. For small spills (e.g., < 1 gallon (3.8 L)) wear appropriate person Maximize ventilation (open doors and windows). Remove spilled appropriate closed container(s) for disposal. Dispose of properly in act Wash all affected areas and outside of container with plenty of was clothing and wash thoroughly before reuse. For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected recovery or disposal and solid diking material to separate containers for	RES anup must we material with coordance with arm water and ed individuals. or proper dispo	ar appropriate F equipment (e.g. absorbent mate local, state and soap. Remove Transfer materi sal. Remove co	, goggles rial and prederal research and contractions and	, gloves place int gulations taminate tainers fo d clothin
3.1	Spills:	full face, self-contained breathing apparatus (MSHA/NIOSH approimpervious protective clothing. 6. ACCIDENTAL RELEASE MEASU Before cleaning any spill or leak, individuals involved in spill cleat Equipment. For small spills (e.g., < 1 gallon (3.8 L)) wear appropriate person Maximize ventilation (open doors and windows). Remove spilled appropriate closed container(s) for disposal. Dispose of properly in act Wash all affected areas and outside of container with plenty of was clothing and wash thoroughly before reuse. For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected recovery or disposal and solid diking material to separate containers for promptly and wash affected skin areas with soap and water. Keep significant containers for promptly and wash affected skin areas with soap and water.	RES anup must wean al protective material with arm water and ed individuals. Or proper dispospills and clean	ar appropriate F equipment (e.g. absorbent mate local, state and soap. Remove Transfer materi sal. Remove co	, goggles rial and prederal research and contractions and	, gloves place integulations taminate tainers for d clothin
	Spills: Work & Hygiene Practices:	full face, self-contained breathing apparatus (MSHA/NIOSH approximpervious protective clothing. 6. ACCIDENTAL RELEASE MEASU Before cleaning any spill or leak, individuals involved in spill cleat Equipment. For small spills (e.g., < 1 gallon (3.8 L)) wear appropriate person Maximize ventilation (open doors and windows). Remove spilled appropriate closed container(s) for disposal. Dispose of properly in act Wash all affected areas and outside of container with plenty of was clothing and wash thoroughly before reuse. For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected recovery or disposal and solid diking material to separate containers for promptly and wash affected skin areas with soap and water. Keep sand open bodies of water.	RES anup must we material with coordance with material and ed individuals or proper dispospills and clean around a skin thoroug	ar appropriate f equipment (e.g. absorbent mate local, state and soap. Remove Transfer mater isal. Remove co ning runoffs out of	, goggles rial and period federal re- e any con- nial to confintaminate of municip	, gloves place integulations taminate diainers for dictornial sewer
7.1		full face, self-contained breathing apparatus (MSHA/NIOSH approximpervious protective clothing. 6. ACCIDENTAL RELEASE MEASU Before cleaning any spill or leak, individuals involved in spill cleat Equipment. For small spills (e.g., < 1 gallon (3.8 L)) wear appropriate person Maximize ventilation (open doors and windows). Remove spilled appropriate closed container(s) for disposal. Dispose of properly in act Wash all affected areas and outside of container with plenty of was clothing and wash thoroughly before reuse. For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected recovery or disposal and solid diking material to separate containers for promptly and wash affected skin areas with soap and water. Keep so and open bodies of water. 7. HANDLING & STORAGE INFORMATION Avoid prolonged contact with this material. Limit inhalation of the ventilated location (e.g., local exhaust ventilation, fans). Wash exposed	RES anup must we material with ecordance with material with ecordance with embedding and clean expension of the material with ecordance with embedding and clean expension of the material with expension of the material with expension of the exp	ar appropriate f equipment (e.g., absorbent mater local, state and soap. Remove Transfer mater esal. Remove co- ning runoffs out of the death of the control of the control for the control of the control of the control for the control of the con	, goggles rial and federal re e any con ial to cont ntaminate of municip uct. Use f soap & v way from e materials ecurely clo	, gloves place integulations taminate tainers for dictornial sewer in a well water after excessive silsted in seed when

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		8. EXPOSURE CONT	ROLS	<u>& P</u> E	RSON	AL PI	ROTEC	CTION			
3.1	Exposure Limits:		AC	GIH		NOHSC	FC		OSHA		OTHER
	ppm (mg/m³)	CHEMICAL NAME(S)	TLV	STEL	ES-TWA	ES- STEL	ES- PEAK	PEL	STEL	IDLH	
		CI 77891 (TITANIUM DIOXIDE)	10	NA	NF	NF	5	NA	5000	NA	RESP
		SILVER	(0.1)	NA	0.01	NF	NF	NA	NA	10	(0.1) TRGS9
8.2	Ventilation & Engineering Controls:	When working with large quantities									
	Controls.	that an eyewash station, sink or w		is availa	ble in case	e of expo	sure to ey	es. Peri	odic me	dical ex	ams of expos
0.0	Descirator Destrution	workers may be required - contain		to a discount					to a sea office		1
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,								
			se only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian								
		CAS Standard Z94.4-93 and ap									
		Australia.					,			,	
8.4	Eye Protection:	Avoid eye contact. Use approved	safety q	lasses or	gogales.	Use ea	uipment fo	or eve pro	otection	tested	
		and approved under appropriate g									
8.5	Hand Protection:	If anticipated that prolonged & rep					` '			atex or	
		rubber gloves for routine industri									China
		appropriate standards of Canada,	of the E.	C. memb	er states.						
8.6	Body Protection:	No special body protection is requ							If nece	essary,	
		refer to appropriate standards of C	canada, tl	ne E.C. n	nember sta	ites, or L	I.S. OSHA	١.			
		0 5111/01041	0.011	=1410			T.E.O.				
<u> </u>	Г.	9. PHYSICAL	& CH	EMICA	AL PRO	JPER	IIES				
9.1	Appearance:	Silvery powder									
9.2	Odor:	Odorless									
9.3	Odor Threshold:	NA									
9.4	pH:	NA									
9.5 9.6	Melting Point/Freezing Point: Initial Boiling Point/Boiling	Silver 961.6 °C (1763 °F)									
9.0	Range:	NA									
9.7	Flashpoint:	NA									
9.8	Upper/Lower Flammability	NA									
9.9	Limits: Vapor Pressure:	NA									
9.10	Vapor Density:	NA									
9.11	Relative Density:	NA									
9.12	Solubility:	Insoluble in water									
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:	NA									
		10. STA	DII IT	V 0 D	EACTI	//TV					
10 1	Stability:		DILII	IXK	EACII	VIII					
10.1	Hazardous Decomposition	This product is stable.									
10.2	Products:	Oxides of carbon and nitrogen. Si	ilver fume	es.							
10.3	Hazardous Polymerization:	Will not occur.									
10.4	Conditions to Avoid:	Open flames, sparks, high heat ar	nd direct s	sunlight.							
10.5	Incompatible Substances:	None known.									
		11. TOXICO	<u>LOGI</u>	<u>CAL</u> I	<u>NFORI</u>	<u>MATI</u> (ON				
11.1	Routes of Entry:	Inhalation: NO			Absorption:				Inges		ES
11.2	Toxicity Data:	This product has NOT been teste									
		of the product, which are found in	scientific	literature	. This dat	a has no	t been pre	esented in	n this do	cument	•
11.3	Acute Toxicity:	See Section 4.4									
	Chronic Toxicity:	See Section 4.5									
	Supported Carainagen:	<u>Titanium Dioxide</u> : IARC Group 2B						classified	l as a hu	ıman ca	rcinogen).
11.4 11.5	Suspected Carcinogen:		duce ren	roductive	effects in	humans.					
11.4 11.5	Reproductive Toxicity:	This product is not reported to pro	adoc rep								
11.4 11.5		This product is not reported to pro This product is not reported to pro			ffects in hu	ımans.					
11.4 11.5	Reproductive Toxicity:		duce mu	tagenic e							
11.4 11.5 11.6	Reproductive Toxicity: Mutagenicity:	This product is not reported to pro	duce mu	tagenic e bryotoxic	effects in	humans.					

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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 8/24/2017 11. TOXICOLOGICAL INFORMATION – cont'd Irritancy of Product: See Section 4.2. General Nuisance Dusts: Nuisance dusts, which are essentially nontoxic and chemically non-irritating. Skin contact has shown no problems other than possible drying and mechanical irritation. Eye contact can produce particulate irritation. Excessive inhalation can produce mild pulmonary irritation and possible non-disabling slight fibrosis of the lungs. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure. 11.8 Biological Exposure Indices: ΝE 11.9 Physician Recommendations: Treat symptomatically 12. ECOLOGICAL INFORMATION Environmental Stability: 12.1 This product will slowly volatile from soil. Components of this product will slowly decompose into organic compounds Effects on Plants & Animals: 12.2 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, releases of large volumes may be harmful or fatal to overexposed aquatic life. Aquatic toxicity data for components of this product are available, but are not presented in this Safety Data Sheet. 13. DISPOSAL CONSIDERATIONS Dispose of in accordance with Federal, state and local regulations. 13.1 Waste Disposal: 13.2 Special Considerations: 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, SCT, ADGT, ADR and the CTDGR 14.1 49 CFR (GND): **NOT REGULATED** 14.2 IATA (AIR): NOT REGULATED 14.3 IMDG (OCN) **NOT REGULATED** TDGR (Canadian GND): 14 4 NOT REGULATED 14.5 ADR/RID (EU): **NOT REGULATED** 14.6 SCT (MEXICO) NOT REGULATED ADGR (AUS): 14.7 **NOT REGULATED** 15. REGULATORY INFORMATION SARA Reporting 15.1 This product contains Silver, a substance subject to SARA Title III, Section 313 reporting requirements. Requirements 15.2 There are no specific Threshold Planning Quantities for the components of this product SARA TPQ: The components of this product are listed on the TSCA Inventory as appropriate 15.3 TSCA Inventory Status: 15.4 CERCLA Reportable Silver: 454 kg (1,000 lbs) Quantity Other Federal Requirements: This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G, 15.5 (Cosmetics) 15.6 Other Canadian Regulations This product has been classified according to the hazard criteria of the CPR and the Safety Data 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 D2B (Other Toxic Effects) 15.7 State Regulatory Information: Silver is found on the following state criteria list: 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), and Washington Permissible Exposures List (WA). Titanium Dioxide is found on the following state criteria lists: California Hazardous Substances List (CA). None of the ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following 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). WARNING: This product can expose you to chemicals including Titanium Dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov. Other Requirements: 15.8 NA

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		16. OTHER INFO	RMATION			
16.1	Other Information:	CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. Use only as directed. Discontinue use if irritation develops. Avoid breathing dusts. Wash thoroughly after handling. Wear protective gloves/protective clothing/ eye protection/ face protection. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Specific treatment. See this container label or Section 4 of this SDS. Take off contaminated clothing and wash before reuse. Store in a well-ventilated place. Keep container tightly closed. Store locked up. KEEP OUT OF REACH OF CHILDREN. WARNING: This product can expose you to chemicals including Titanium Dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.				
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	J. 1. J.			
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	$\mathbf{O} \cdot \mathbf{P} \cdot \mathbf{I}$			
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	ShipMate* Dangerous Goods Training & Consulting			

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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.	CAS No. Chemical Abstract Service Number		
RTECS No.	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	IDLH Immediately Dangerous to Life and Health		
NOHSC	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.			

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

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		THE STATE OF THE S	
D		THE STATE OF THE S	
Е			
F			

G					
Н			H.		
ı					
J			F		
K	F		(
Х	Consult your supervisor or SOPs fo special handling directions.				



OTHER STANDARD ABBREVIATIONS:

Carc	Carcinogenic			
Irrit	Irritant			
NA	Not Available			
NR	No Results			
ND	Not Determined			
NE	Not Established			
NF	NF Not Found			
SCBA	Self-Contained Breathing Apparatus			
Sens	Sensitization			
STOT RE	STOT RE Specific Target Organ Toxicity – Repeat Exposure			
STOT SE	Chasifia Target Organ Tavisity Cingle Evacure			

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILI	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 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	FLAMMABILITY
1	Slight Hazard	\
2	Moderate Hazard	REACTIVITY
3	Severe Hazard	
4	Extreme Hazard	
ACD	Acidic	
ALK	Alkaline	
COR	Corrosive	/ X W X
W	Use No Water	HEALTH 💮
ОХ	Oxidizer	SPECIAL
TREFOIL	Radioactive	PRECAUTIONS

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 _{to} Lowest dose to cause a symptom		
TCLo Lowest concentration to cause a symptom		
TD _{Io} , LD _{Io} , & LD _o or	TD _{Io} , LD _{Io} , & LD _o or Lowest dose (or concentration) to cause lethal or toxic effects	
TC, TC _o , LC _{io} , & LC _o		
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 Kow or log Koc	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:

0	®	(2)	(2)	①	®		R
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:

	③	③	\Diamond			(! >		*
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment