


SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 1.2 SDS Revision Date: 5/1/2018

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	PULPRIOT SEMI-PERMANENT HAIR COLOR – ALL SHADES
1.2	Chemical Name:	NA
1.3	Synonyms:	PULPRIOT
1.4	Trade Names:	Pulpriot Semi-Permanent Hair Color – All Shades
1.5	Product Use:	Professional Cosmetic Use Only
1.6	Distributor's Name:	
1.7	Distributor's Address:	
1.8	Emergency Phone:	CHEMTEL: +1 (800) 255-3924 / +1 (813) 248-0585
1.9	Business Phone / Fax:	

2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	This product is classified as a HAZARDOUS SUBSTANCE but NOT as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). WARNING! CAUSES SERIOUS EYE IRRITATION. CAUSES MILD SKIN IRRITATION. Classification: Eye Irrit. 2; Skin Irrit. 3	
2.2	Label Elements:	Hazard Statements (H): H319 – Causes serious eye irritation. H314 – Causes mild skin irritation. Precautionary Statements (P): P264 – Wash thoroughly after handling. P280 – Wear protective gloves and eye/face protection. P305+P351+P338 – IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 – If skin irritation occurs: Get medical advice/attention. P337+P313 – If eye irritation persists: Get medical advice/attention. P405 – Store locked up. P501 – Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF).	
2.3	Other Warnings:	KEEP LOCKED UP AND OUT OF REACH OF CHILDREN. Preliminary patch testing is recommended. This product must not be used for dyeing the eyelashes or eyebrows; to do so may cause blindness.	

3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
WATER (AQUA/EAU)	7732-18-5	ZC0110000	231-791-2	60-100	NA	NA	NF	NF	NF	NA	NA	NA		
CETYL ALCOHOL	36653-82-4	MM0225000	253-149-0	3-13	NA	NA	NF	NF	NF	NA	NA	NA		
STEARALKONIUM CHLORIDE	122-19-0	NA	204-527-9	1-5	NA	NA	NF	NF	NF	NA	NA	NA		
GLYCERIN	56-81-5	MA8050000	200-289-5	1-5	NA	NA	NF	NF	NF	NA	NA	NA		
PROPYLENE GLYCOL	57-55-6	TY2000000	200-338-0	1-5	NA	NA	150	474	NF	NA	NA	NA		
GLYCERYL STEARATE	31566-31-1	RG19250000	250-705-4	1-5	NA	NA	NF	NF	NF	NA	NA	NA		
PEG-100 STEARATE	9004-99-3	MD0907300	NA	1-5	NA	NA	NF	NF	NF	NA	NA	NA		
GUAR HYDROXYPROPYL TRIMONIUM CHLORIDE	65497-29-2	NA	NA	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
STEARYL ALCOHOL	112-92-5	RG2010000	204-017-6	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
CETEARETH-20	68439-49-6	NA	NA	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
QUATERNIUM-75	NA	NA	NA	0.1-1	NA	NA	NF	NF	NF	NA	NA	NA		
FRAGRANCE (PARFUM)	NA	NA	NA	0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
HYDROLYZED QUINOA	227025-12-9	NA	309-353-8	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
TETRASODIUM EDTA	64-02-8	NA	200-573-9	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CITRIC ACID	77-92-9	GE7350000	201-069-1	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
METHYLCHLOROISOTHIAZOLINONE	26172-55-4	NX8157080	247-500-7	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
METHYLISOTHIAZOLINONE	2682-20-4	FE1250000	220-239-6	0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	

SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 1.2 SDS Revision Date: 5/1/2018

3. COMPOSITION & INGREDIENT INFORMATION – cont'd

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
MAY ALSO CONTAIN:														
CI 51004 (BASIC BLUE 3)	47367-75-9	NA	251-403-5	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 42595 (BASIC BLUE 7)	2390-60-5	NA	219-232-0	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC ORANGE 31	97404-02-9	NA	306-764-4	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC RED 22	12221-52-2	NA	NA	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC RED 51	77061-58-6	NA	278-601-4	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 42520 (BASIC VIOLET 2)	3248-91-7	NA	221-831-7	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 42536 (BASIC VIOLET 13)	81-48-1	NA	201-353-5	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC YELLOW 29	NA	NA	NA	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC YELLOW 40	29556-33-0	NA	249-694-9	0.-0.5	10	NA	10	NF	NF	10	NA	NA	RESP DUST	
BASIC YELLOW 87	68259-00-7	NA	269-503-2	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 60730 (EXT VIOLET 2)	4430-18-6	NA	224-618-7	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 56059 (BASIC BLUE 99)	68123-13-7	NA	268-544-3	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
HC BLUE 15	147-14-8	NA	205-685-1	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 12250 (BASIC BROWN 16)	26381-41-9	NA	247-640-9	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC RED 14	65122-06-7	NA	NA	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 11320 (BASIC ORANGE 1)	4438-16-8	NA	224-654-3	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 50240 (BASIC RED 2)	477-73-6	NA	207-518-8	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 12251 (BASIC BROWN 17)	68391-32-2	NA	269-944-0	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
HC YELLOW NO. 4	59820-43-8	NA	258-002-4	0.-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
Acute Tox. 4, Eye Irrit.2; H302, H319														

4. FIRST AID MEASURES

4.1	First Aid:	<p>Ingestion: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk 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.</p> <p>Eyes: Splashes are not likely; however, if product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Seek immediate medical attention.</p> <p>Skin: If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.</p> <p>Inhalation: Remove victim to fresh air at once.</p>
4.2	Effects of Exposure:	<p>Ingestion: If product is swallowed, may cause nausea, vomiting and/or diarrhea.</p> <p>Eyes: Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p>Skin: May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p> <p>Inhalation: None expected.</p>


SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 1.2 SDS Revision Date: 5/1/2018

4. FIRST AID MEASURES – cont'd

4.3	Symptoms of Overexposure:	Overexposure in eyes may cause redness, itching and watering. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.			
4.4	Acute Health Effects:	Moderate irritation to eyes. Moderate irritation to skin near affected areas.			
4.5	Chronic Health Effects:	No harmful or chronic health effects are expected to occur from a single accidental ingestion.			
4.6	Target Organs:	Eyes, Skin			
4.7	Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin).	HEALTH		1
			FLAMMABILITY		0
			PHYSICAL HAZARDS		0
			PROTECTIVE EQUIPMENT		B
			EYES	SKIN	

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	This product is non-flammable. When exposed to high temperatures, may produce hazardous decomposition products such as oxides of carbon (e.g., CO, CO ₂) and nitrogen (e.g., NO _x) and smoke.	
5.2	Extinguishing Methods:	Water, Foam, CO ₂ , Dry Chemical	
5.3	Firefighting Procedures:	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. 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

6.1	Spills:	<p>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE).</p> <p>For <u>small spills</u> (e.g., < 1 gallon (3.8 L)) or <u>large spills</u> (e.g., ≥ 1 gallon (3.8 L)), wear appropriate personal protective equipment (e.g., goggles, gloves). 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.</p>
-----	---------	--

7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Do not eat, drink, or smoke while handling this product.
7.2	Storage & Handling:	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans). Keep away from excessive heat and open flames. Avoid contamination. Do not store any tint, lightener lotion or bleach powder after it has been mixed with developer; the container may rupture. Never return unused material to original container. Avoid extreme heat and ignition sources.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.


8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Exposure Limits: ppm (mg/m ³)		ACGIH		NOHSC			OSHA			OTHER
		CHEMICAL NAME(S)	TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
		PROPYLENE GLYCOL	NA	NA	150	474	NF	NA	NA	NA	
		METHYLCHLOROISOTHIAZOLINONE	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
		METHYLISOTHIAZOLINONE	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
		BASIC YELLOW 40	10	NA	10	NF	NF	10	NA	NA	RESP DUST
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	Eye Protection:	AVOID EYE CONTACT DUE TO IRRITATION POTENTIAL. Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling large quantities (e.g., ≥ 1 gallon (3.8 L)) of this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants.									

SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 1.2 SDS Revision Date: 5/1/2018

8. EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd

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:	Off white to brightly colored liquid
9.2	Odor:	Characteristic
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	NA
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	NA
9.11	Relative Density:	NA
9.12	Solubility:	Partial to complete
9.13	Partition Coefficient (log P _{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	NA
9.17	Other Information:	NA

10. STABILITY & REACTIVITY

10.1	Stability:	This product is stable.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO ₂) and sulfur (SO ₂). Liberation of gas may result in dangerous pressure.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, sparks and high heat, direct sunlight.
10.5	Incompatible Substances:	Store away from flammable liquids, flammable solids, aerosols and other incompatible materials (e.g., reducing materials, combustible materials, metal contamination like iron, copper their alloys). Avoid contamination. Do not store any tint, lightener lotion or bleach powder after it has been mixed with developer; the container may rupture. Never return unused material to original container. Avoid extreme heat and ignition sources.

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. Toxicology data, found in scientific literature, is available for some of the components, but is not presented in this document.		
11.3	Acute Toxicity:	See Section 4.4		
11.4	Chronic Toxicity:	See Section 4.5		
11.5	Suspected Carcinogen:	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 www.P65Warnings.ca.gov .		
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.		
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.		
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.		
	Teratogenicity:	This product is not reported to cause teratogenic effects in humans.		
	Reproductive Toxicity:	This product is not reported to cause reproductive effects in humans.		
11.7	Irritancy of Product:	See Section 4.3		
11.8	Biological Exposure Indices:	NE		
11.9	Physician Recommendations:	Treat symptomatically.		

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There are no specific data available for this product.
12.2	Effects on Plants & Animals:	There are no specific data available for this product.
12.3	Effects on Aquatic Life:	The product itself has not been tested as a whole. There are no specific data available for this product.

SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 1.2 SDS Revision Date: 5/1/2018

13. DISPOSAL CONSIDERATIONS


13.1	Waste Disposal:	Dispose of in accordance with federal, state and local regulations.
13.2	Special Considerations:	NA

14. TRANSPORTATION INFORMATION

The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

14.1	49 CFR (GND):	NOT REGULATED	
14.2	IATA (AIR):	NOT REGULATED	
14.3	IMDG (OCN):	NOT REGULATED	
14.4	TDGR (Canadian GND):	NOT REGULATED	
14.5	ADR/RID (EU):	NOT REGULATED	
14.6	SCT (MEXICO):	NOT REGULATED	
14.7	ADGR (AUS):	NOT REGULATED	

15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product does not contain any substances subject to SARA Title III, section 313 reporting requirements	
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:	NA	
15.5	Other Federal Requirements:	<p>This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).</p> <p>This material does not contain any hazardous air pollutants. None of the components in this product are listed as priority pollutants under the CWA. None of the components in this product are listed as toxic pollutants under the CWA.</p>	
15.6	Other Canadian Regulations:	<p>This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. WHMIS D2B (Other Toxic Effects).</p>	
15.7	State Regulatory Information:	<p>No ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).</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 www.P65Warnings.ca.gov</p>	
15.8	Other Requirements:	NA	

SAFETY DATA SHEET


Page 6 of 7

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

SDS Revision: 1.2

SDS Revision Date: 5/1/2018

16. OTHER INFORMATION

16.1	Other Information:	WARNING! CAUSES SERIOUS EYE IRRITATION. CAUSES MILD SKIN IRRITATION. For external use only. Use only as directed. Discontinue use immediately if irritation develops. Keep away from children. Keep container tightly closed in a cool place. When using do not eat or drink. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. If skin irritation occurs: Get medical advice/attention. If case of accident or if you feel unwell seek medical advice immediately (show the label where possible). KEEP LOCKED UP AND OUT OF REACH OF CHILDREN. Preliminary patch testing is recommended. This product must not be used for dyeing the eyelashes or eyebrows; to do so may cause blindness.	
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 & TU-K Industries, Inc.'s (2K Industries) 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:	TU-K Industries, Inc. (2K) 5702 Firestone Place South Gate, CA 90280 USA Tel: +1 (562) 927-3365 Fax: +1 (562) 928-8154 http://www.2kindustries.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	

SAFETY DATA SHEET

Page 7 of 7

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

SDS Revision: 1.2

SDS Revision Date: 5/1/2018

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.
------------	--

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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

HEALTH
FLAMMABILITY
PHYSICAL HAZARDS
PERSONAL PROTECTION

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:

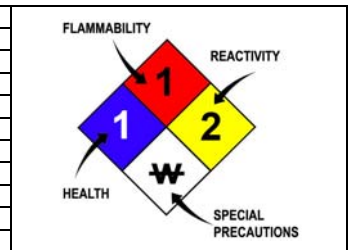
Carc	Carcinogenic
Irrit	Irritant
NA	Not Available
NR	No Results
ND	Not Determined
NE	Not Established
NF	Not Found
SCBA	Self-Contained Breathing Apparatus
Sens	Sensitization
STOT RE	Specific Target Organ Toxicity – Repeat Exposure
STOT SE	Specific Target Organ Toxicity – Single Exposure

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:	
Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source

HAZARD RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard
ACD	Acidic
ALK	Alkaline
COR	Corrosive
W	Use No Water
OX	Oxidizer
TREFOIL	Radioactive



TOXICOLOGICAL INFORMATION:

LD₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC₅₀	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD₁₀	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD₁₀, LD₁₀, & LD₀₁ or TC, TC₀₁, LC₁₀, & LC₀₁	Lowest dose (or concentration) to cause lethal or toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TL_m	Median threshold limit
log K_{OW} or log K_{OC}	Coefficient of Oil/Water Distribution

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System
DOT	U.S. Department of Transportation
TC	Transport Canada
EPA	U.S. Environmental Protection Agency
DSL	Canadian Domestic Substance List
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