

# SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards      SDS Revision: 1.1      SDS Revision Date: 9/21/2015

## 1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	<b>ARCTIC FOX SEMI-PERMANENT HAIR COLOR – ALL SHADES</b>
1.2	Chemical Name:	MIXTURE
1.3	Synonyms:	NA
1.4	Trade Names:	Arctic Fox Semi-Permanent Hair Color – All Shades
1.5	Product Uses & Restrictions:	Professional or Cosmetic Use Only
1.6	Distributor's Name:	TU-K Industries, Inc.
1.7	Distributor's Address:	5702 Firestone Place, South Gate, CA 90280
1.8	Emergency Phone:	<b>CHEMTEL: +1 (800) 255-3924 / +01-813-248-0585</b>
1.9	Business Phone / Fax:	+1 (562) 927-3365 / +1 (562) 928-8154

## 2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	<p>This product is NOT classified as a HAZARDOUS SUBSTANCE or as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia).</p> <p><b>WARNING! CAUSES EYE IRRITATION.</b></p> <p>Classification: Eye Irrit. 2B</p> <p>Hazard Statements (H): H320 – Causes eye irritation.</p> <p>Precautionary Statements (P): P264 – Wash thoroughly after handling. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 – If eye irritation persists get medical advice/attention.</p>
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## 3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> )									OTHER
					ACGIH		NOHSC			OSHA				
					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	3.0-13	NA	NA	NF	NF	NF	NA	NA	NA		
STEARALKONIUM CHLORIDE	122-19-0	NA	204-527-9	1.0-5.0	NA	NA	NF	NF	NF	NA	NA	NA		
GLYCERIN	56-81-5	MA8050000	200-289-5	1.0-5.0	NA	NA	NF	NF	NF	NA	NA	NA		
PROPYLENE GLYCOL	57-55-6	TY2000000	200-338-0	1.0-5.0	NA	NA	150	474	NF	NA	NA	NA		
GLYCERYL STEARATE	31566-31-1	RG19250000	250-705-4	1.0-5.0	NA	NA	NF	NF	NF	NA	NA	NA		
PEG-100 STEARATE	9004-99-3	MD0907300	NA	1.0-5.0	NA	NA	NF	NF	NF	NA	NA	NA		
GUAR HYDROXYPROPYL TRIMONIUM CHLORIDE	65497-29-2	NA	NA	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
STEARYL ALCOHOL	112-92-5	RG2010000	204-017-6	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CETEARETH-20	68439-49-6	NA	NA	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
QUATERNIUM-52	58069-11-7	NA	NA	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
FRAGRANCE (PARFUM)	NA	NA	NA	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
HYDROLYZED SOY PROTEIN	68607-88-5	NA	271-770-5	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
TETRASODIUM EDTA	64-02-8	NA	200-573-9	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CITRIC ACID	77-92-9	GE7350000	201-069-1	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
METHYLCHLOROISOTHIAZOLINONE	2682-20-4	NX8157080	220-239-6	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
METHYLISOTHIAZOLINONE	2682-20-4	FE1250000	220-239-6	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	

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					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
<b>MAY ALSO CONTAIN:</b>														
CI 51004 (BASIC BLUE 3)	47367-75-9	NA	251-403-5	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 42595 (BASIC BLUE 7)	2390-60-5	NA	219-232-0	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC ORANGE 31	97404-02-9	NA	306-764-4	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC RED 22	12221-52-2	NA	NA	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC RED 51	77061-58-6	NA	278-601-4	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 42520 (BASIC VIOLET 2)	3248-91-7	NA	221-831-7	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 42536 (BASIC VIOLET 13)	81-48-1	NA	201-353-5	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC YELLOW 29	NA	NA	NA	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
BASIC YELLOW 40	29556-33-0	NA	249-694-9	0.0-0.5	10	NA	10	NF	NF	10	NA	NA	RESP. DUST	
BASIC YELLOW 87	68259-00-7	NA	269-503-2	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		
CI 60730 (EXT VIOLET 2)	4430-18-6	NA	224-618-7	0.0-0.5	NA	NA	NF	NF	NF	NA	NA	NA		

## 4. FIRST AID MEASURES


4.1	First Aid:	<p><b>Ingestion:</b> 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><b>Eyes:</b> Splashes are not likely; however, if product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.</p> <p><b>Skin:</b> 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><b>Inhalation:</b> Remove victim to fresh air at once.</p>										
4.2	Effects of Exposure:	<p><b>Ingestion:</b> If product is swallowed, may cause nausea, vomiting and/or diarrhea.</p> <p><b>Eyes:</b> Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p><b>Skin:</b> May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p> <p><b>Inhalation:</b> None expected.</p>										
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).										
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #0000FF; color: white;"><b>HEALTH</b></td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td style="background-color: #FF0000; color: white;"><b>FLAMMABILITY</b></td> <td style="text-align: center;"><b>0</b></td> </tr> <tr> <td style="background-color: #FFA500; color: white;"><b>PHYSICAL HAZARDS</b></td> <td style="text-align: center;"><b>0</b></td> </tr> <tr> <td colspan="2" style="background-color: #000000; color: white;"><b>PROTECTIVE EQUIPMENT</b></td> </tr> <tr> <td style="background-color: #000000; color: white;"><b>EYES</b></td> <td style="background-color: #000000; color: white;"><b>SKIN</b></td> </tr> </table>	<b>HEALTH</b>	<b>1</b>	<b>FLAMMABILITY</b>	<b>0</b>	<b>PHYSICAL HAZARDS</b>	<b>0</b>	<b>PROTECTIVE EQUIPMENT</b>		<b>EYES</b>	<b>SKIN</b>
<b>HEALTH</b>	<b>1</b>											
<b>FLAMMABILITY</b>	<b>0</b>											
<b>PHYSICAL HAZARDS</b>	<b>0</b>											
<b>PROTECTIVE EQUIPMENT</b>												
<b>EYES</b>	<b>SKIN</b>											

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## 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 <sub>2</sub> ) and nitrogen (e.g., NO <sub>x</sub> ) and smoke.	
5.2	Extinguishing Methods:	Water, Foam, CO <sub>2</sub> , 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., &lt; 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>
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## 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.
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 <sup>3</sup> )		ACGIH		NOHSC			OSHA			OTHER
		<b>CHEMICAL NAME(S)</b>	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:	<b>AVOID EYE CONTACT DUE TO IRRITATION POTENTIAL.</b> 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.									
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:	However, 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:	Fruity odor
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	NA
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	NA

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## 9. PHYSICAL & CHEMICAL PROPERTIES – cont'd

9.11	Relative Density:	NA
9.12	Solubility:	Partial to complete
9.13	Partition Coefficient (log P <sub>ow</sub> ):	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 <sub>2</sub> ) and sulfur (SO <sub>2</sub> ).
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, sparks and high heat.
10.5	Incompatible Substances:	None known.

## 11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation: YES	Absorption: YES	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 presented below:		
11.3	Acute Toxicity:	See section 4.4		
11.4	Chronic Toxicity:	See section 4.5		
11.5	Suspected Carcinogen:	No.		
11.6	Reproductive Toxicity:	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.		
	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:	The components of this product will slowly degrade over time into a variety of organic compounds.
12.2	Effects on Plants & Animals:	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	There is no specific data available for this product.

## 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 Threshold Planning Quantity:	This product is not subject to the reporting requirements of SARA Title III, Section 302.
15.3	TSCA Inventory Status:	All components of this product are listed in the TSCA Inventory or are exempt.
15.4	CERCLA Reportable Quantity (RQ):	NA

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## 15. REGULATORY INFORMATION – cont'd

15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics). 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.	
15.6	Other Canadian Regulations:	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	
15.7	State Regulatory Information:	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).	
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Irritant (Xi). <b>Risk Phrases (R):</b> 36 – Irritating to eyes. <b>Safety Phrases (S):</b> 2-26 – Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	

## 16. OTHER INFORMATION

16.1	Other Information:	<p><b>WARNING! CAUSES EYE IRRITATION.</b> For external use only. Use only as directed. Discontinue use immediately if irritation develops. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Keep container tightly closed when not in use. <b>KEEP OUT OF REACH OF CHILDREN.</b></p> <p>This product is designed and intended for use by a licensed cosmetologist/professional hairdresser only, and carries no warranty expressed or implied if used by others. CAN CAUSE AN ALLERGIC REACTION. Preliminary patch testing is recommended. This product must not be used for dyeing the eyelashes or eyebrows; to do so may cause blindness.</p>	
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 (2K Industries), knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are 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:	<p><b>TU-K Industries, Inc. (2K)</b>                      5702 Firestone Place                      South Gate, CA 90280 USA                      Tel: +1 (562) 927-3365                      Fax: +1 (562) 928-8154  <a href="http://www.2kindustries.com">http://www.2kindustries.com</a></p>	
16.5	Prepared by:	<p><b>ShipMate, Inc.</b>                      P.O. Box 787                      Sisters, Oregon 97759-0787 USA                      Tel: +1 (310) 370-3600                      Fax: +1 (310) 370-5700  <a href="http://www.shipmate.com">http://www.shipmate.com</a></p>	

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## DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a SDS. Some of these that are commonly used include the following:

### GENERAL INFORMATION:

<b>CAS No.</b>	Chemical Abstract Service Number
<b>EXPOSURE LIMITS IN AIR:</b>	
<b>ACGIH</b>	American Conference on Governmental Industrial Hygienists
<b>C</b>	Ceiling Limit
<b>ES</b>	Exposure Standard (Australia)
<b>IDLH</b>	Immediately Dangerous to Life and Health
<b>OSHA</b>	U.S. Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>STEL</b>	Short-Term Exposure Limit
<b>TLV</b>	Threshold Limit Value
<b>TWA</b>	Time Weighted Average

### FIRST AID MEASURES:

<b>CPR</b>	Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body.
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### HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

<b>0</b>	Minimal Hazard
<b>1</b>	Slight Hazard
<b>2</b>	Moderate Hazard
<b>3</b>	Severe Hazard
<b>4</b>	Extreme Hazard

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

### PERSONAL PROTECTION RATINGS:

<b>A</b>		<b>G</b>	
<b>B</b>		<b>H</b>	
<b>C</b>		<b>I</b>	
<b>D</b>		<b>J</b>	
<b>E</b>		<b>K</b>	
<b>F</b>		<b>X</b>	Consult your supervisor or SOPs for special handling directions.

Safety Glasses	Splash Goggles	Face Shield & Protective Eyewear	Gloves
Boots	Synthetic 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:

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

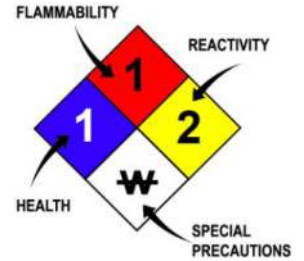
### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

#### FLAMMABILITY LIMITS IN AIR:

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

### HAZARD RATINGS:

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



### TOXICOLOGICAL INFORMATION:

<b>LD<sub>50</sub></b>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
<b>LC<sub>50</sub></b>	Lethal concentration (gases) which kills 50% of the exposed animal
<b>ppm</b>	Concentration expressed in parts of material per million parts
<b>TD<sub>10</sub></b>	Lowest dose to cause a symptom
<b>TCLo</b>	Lowest concentration to cause a symptom
<b>TD<sub>101</sub>, LD<sub>101</sub> &amp; LD<sub>50</sub> or TC, TC<sub>101</sub>, LC<sub>101</sub>, &amp; LC<sub>50</sub></b>	Lowest dose (or concentration) to cause lethal or toxic effects
<b>IARC</b>	International Agency for Research on Cancer
<b>NTP</b>	National Toxicology Program
<b>RTECS</b>	Registry of Toxic Effects of Chemical Substances
<b>BCF</b>	Bioconcentration Factor
<b>TL<sub>m</sub></b>	Median threshold limit
<b>log K<sub>ow</sub> or log K<sub>oc</sub></b>	Coefficient of Oil/Water Distribution

### REGULATORY INFORMATION:

<b>WHMIS</b>	Canadian Workplace Hazardous Material Information System
<b>DOT</b>	U.S. Department of Transportation
<b>TC</b>	Transport Canada
<b>EPA</b>	U.S. Environmental Protection Agency
<b>DSL</b>	Canadian Domestic Substance List
<b>NOHSC</b>	National Occupational Health and Safety Commission (Australia)
<b>NDSL</b>	Canadian Non-Domestic Substance List
<b>PSL</b>	Canadian Priority Substances List
<b>TSCA</b>	U.S. Toxic Substance Control Act
<b>EU</b>	European Union (European Union Directive 67/548/EEC)
<b>WGK</b>	Wassergefährdungsklassen (German Water Hazard Class)
<b>HMIS-III</b>	National Paint & Coatings Association Hazardous Materials Identification System

### 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

### EC (67/548/EEC) INFORMATION:

C	E	F	N	O	T	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

### 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