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KC-002 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 11/19/2018 1. PRODUCT & COMPANY IDENTIFICATION #mydentity 1.1 Product Name: PERMANENT HAIR COLOR (ALL SHADES) Chemical Name: 1.2 1.3 NA 1.4 Trade Names #mydentity™@GUY-TANG Permanent Hair Color (All Shades) 1.5 Product Uses & Restrictions Professional or Cosmetic Use Only Distributor's Name: C-CARE, LLC 1.6 Distributor's Address: 979 Corporate Boulevard, Linthicum Heights, MD 21090 USA 1.7 1.8 **Emergency Phone** CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN XXXXX) 1.9 Business Phone / Fax: +1 (410) 850-0035 2. HAZARDS IDENTIFICATION This product is classified as a HAZARDOUS SUBSTANCE but NOT as DANGEROUS GOODS according to the Hazard Identification: 2.1 classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). WARNING! CAUSES MILD SKIN IRRITATION. CAUSES EYE IRRITATION. Classification: Skin Irrit. 3; Eye Irrit. 2B 2.2 Label Elements: Hazard Statements (H): H316 - Causes mild skin irritation. H320 - Causes eye irritation. Precautionary Statements (P): P264 - Wash hands and exposed skin areas with soap and warm water thoroughly after handling. P270 - Do not eat, drink or smoke while using this product. 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. P337+P313 - If eye irritation persists: Get medical advice/attention. P332+P313 - If skin irritation occurs: get medical advice/attention. P405 - Store locked up. P501 - Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF). KEEP OUT OF REACH OF CHILDREN. NOTICE: This product is designed and intended for use by a licensed Other Warnings: 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. Tattoos, including black and temporary henna, may increase the risk of allergy. If a severe allergic reaction should occur, seek immediate medical attention. This product must not be used for dyeing the eyelashes or eyebrows - to do so may cause blindness 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) ACGIH NOHSC OSHA ppm ppm ppm ES. ES-ES-CHEMICAL NAME(S) RTECS No. EINECS No. STEL TWA STEL PEAK PEI STEL IDLH OTHER CAS No. ZC0110000 231-791-2 50-70 NA NA 7732-18-5 NA NA NF NF NF NA WATER / AQUA 267-008-6 NA 67762-27-0 NA 10-15 NA NA NF NF NF NA NA CETEARYL ALCOHOL NA NA NA NA 5-10 NA NA NF NF NF 68439-49-6 NA CETEARETH-20 NA NA 0.1-10 NA NA NF NF NF NA NA NA NA #mydentity/ PROPRIETARY BLEND 57-55-6 TY2000000 200-338-0 1-5 NA NA NF NF NF NA NA NA PROPYLENE GLYCOL Skin Irrit. 3; Eye Irrit. 2;H316; H320 NA 25 NIOSH 1336-21-6 BQ9625000 215-647-6 1-5 25 35 25 50 NF 25 NA AMMONIUM HYDROXIDE Skin Corr. 1B; H314 14450-07-8 NA 238-431-3 1-5 NA NA NF NF NF NA NA NA DIOLEYL PHOSPHATE 61789-40-0 NA 263-058-8 1-5 NA NA NF NF NF NA NA NA COCAMIDOPROPYL BETAINE Skin Irrit. 2; eye Irrit. 2; H315, H319 11099-07-3 NA 234-325-6 1-5 NA NA NF NF NF NA NA NA **GLYCERYL STEARATE** MAY ALSO CONTAIN: NA 0-2 54381-16-7 259-134-5 NA NA NF NF NF NA NA NA N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULFATE 2835-95-2 NA 220-618-6 0-1 NA NA NF NF NF NA NA NA 4-AMINO-2-HYDROXYTOLUENE NA 0-1 NA NF NF NA NA 123-30-8 204-616-2 NA NF NA

P-AMINOPHENOL

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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 11/19/2018 3. COMPOSITION & INGREDIENT INFORMATION - cont'd EXPOSURE LIMITS IN AIR (mg/m³) **ACGIH** NOHSC OSHA ppm ppm ppm ES-IDI H OTHER CHEMICAL NAME(S) RTECS No. **EINECS No** STFI PEAK STFI CAS No. TWA STFL MAY ALSO CONTAIN: NA NA 615-50-9 NA 210-431-8 0-1 NA NF NF NF NA NA TOLUENE-2,5-DIAMINE SULFATE 90-15-3 NA 201-969-4 0-1 NA NA NF NF NF NA NA NA 1-NAPHTHOL **TETRAAMINOPYRIMIDINE** 5392-28-9 NA 226-393-0 0-1 NA NA NF NF NF NA NA NA **SULFATE** 1-HYDROXYETHYL 4,5-DIAMINO 155601-30-2 NA 429-300-3 0-1 NA NA NF NA NA NF NF NA PYRAZOLE SULFATE 2-AMINO-4-HYDROXYETHYL-83763-48-8 NA 280-734-8 0-1 NA NA NF NF NF NA NA NA AMINOANISOLE SULFATE VG9625000 203-585-2 0-1 NA 108-46-3 NA NF NF NF NA NA NA RESORCINOL 591-27-5 NA 209-711-2 0-1 NA NA NF NF NF NA NA NA m-AMINOPHENOL 2,4-DIAMINOPHENOXYETHANOL 66422-95-5 NA 266-357-1 0-1 NA NA NF NF NF NA NA NA 89-25-8 NA 201-891-0 0-1 NA NA NF NF NF NA NA NA PHENYL METHYL PYRAZOLONE 78-70-6 NA 201-134-4 0-1 NA NA NF NF NF NA NA NA ALLERGEN LINALOOL GW6360000 227-813-5 NA NA NA ALLERGEN 5989-27-5 0-1 NA NA NF NF NF LIMONENE RG5830000 0-1 NA ALLERGEN 106-24-1 203-377-1 NA NA NF NF NF NA NA **GERANIOL** Skin Irrit. 2; Skin Sens. 1; Eye Dam. 1; H315, H317, H318 210-155-8 NA NA NF NF NF NA NA NA 608-25-3 NA 0-1 2-METHYLRESORCINOL 91-64-5 NA 202-086-7 0.0-0.5 NA NA NF NF NF NA NA NA ALLERGEN COUMARIN Acute Tox. Oral 3; Aquatic Acute 3; H301, H402 NA NA NF NF NA NA 25 106-50-3 SS8050000 203-404-7 0.0-5 0.1 p-PHENYLENEDIAMINE Acute Tox. 3 \*; Eye Irrit. 2; Skin Sens. 1; H331, H311, H301, H319, H317 2-METHYL-5-55302-96-0 259-583-7 NA NA NF NF NF NA NA HYDROXYETHYLAMINOPHENOL 4. FIRST AID MEASURES First Aid: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk 4.1 Inaestion: 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. Eyes: 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. 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. If irritation, redness or swelling persists, contact a physician immediately. Remove victim to fresh air at once. Inhalation: 42 Effects of Exposure: Ingestion: If product is swallowed, may cause nausea, vomiting and/or diarrhea. Eyes: Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in Skin: some sensitive individuals. None expected. 4.3 Symptoms of Overexposure: Nausea, intestinal discomfort, vomiting and/or diarrhea. Ingestion: Eyes: Overexposure in eyes may cause redness, itching and watering. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. Skin: product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. 4.4 Acute Health Effects: Moderate irritation to eyes. Symptoms of overexposure may include redness, itching, stinging, irritation and watering. 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.

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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 11/19/2018 4. FIRST AID MEASURES - cont'd 4.6 Target Organs: Eyes, Skin 47 Medical Conditions Pre-existing dermatitis, other skin conditions, and disorders of the HEALTH 1 Aggravated by Exposure: target organs (eyes, skin). **FLAMMABILITY** 0 PHYSICAL HAZARDS 0 PROTECTIVE EQUIPMENT В **EYES** SKIN 5. FIREFIGHTING MEASURES Fire & Explosion Hazards: 5.1 This product is not flammable. CO2, Halon (if permitted), Dry Chemical, Foam, as authorized. 52 Extinguishing Methods: 5.3 As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-Firefighting Procedures: 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: Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For small spills (e.g., < 1 gallon (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows) and secure all sources of ignition. Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse. For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water. 7. HANDLING & STORAGE INFORMATION Do not eat, drink, or smoke while handling this product. Wash thoroughly after handling. Avoid contact with flammable or 7.1 Work & Hygiene Practices: combustible materials. Avoid contamination from any source, including metals, dust and organic materials. Keep bulk covered. Wash unintentional residues with soap and warm water. Storage & Handling: Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans). Keep away from excessive 7.2 heat and open flames. Avoid temperatures above 120 °F. Keep away from incompatible substances. Protect containers from physical damage. 7.3 Special Precautions: Spilled material may present a slipping hazard if left unattended. Clean all spills promptly. 8. EXPOSURE CONTROLS & PERSONAL PROTECTION Exposure Limits: ACGIH NOHSC OSHA OTHER ppm (mg/m<sup>3</sup>) TLV STEL ES-TWA ES-STEL ES-PEAK PEL STEL IDLH CHEMICAL NAME(S) AMMONIUM HYDROXIDE NF 25 NIOSH 25 35 25 50 25 NA NA LINALOOL NA NA NF NF NA NA NA **ALLERGEN** LIMONENE NA NA NF NF NF NA NA NA **ALLERGEN GERANIOL** NF ALLERGEN NA NA NF NF NA NA NA COUMARIN NA NA NF NF NF NA NA ALLERGEN p-PHENYLENEDIAMINE NA NA NF (0.1) NF (0.1) 8.2 Ventilation & Engineering General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general Controls: exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product. Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station) 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.

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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 11/19/2018 8. EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd Avoid eye contact. None required under normal conditions of use. When handling large quantities 8 4 Eye Protection: (e.g., ≥ 1 gallon (3.8 L)) safety glasses with side shields should be used. 8.5 Hand Protection: Required under normal conditions of use to prevent staining and keep exposure level to a minimum. Use latex or PVC gloves. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear rubber or impervious plastic gloves must be worn. 8.6 Body Protection: No apron required when handling small quantities. Lab coat or apron should be worn to protect skin and clothing. When handling large quantities (e.g., ≥ 1 gallon), eye wash stations and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water. 9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Appearance: Paste, color varies 9.2 Odor: Mild to no odor 93 Odor Threshold: NA 94 pH: 10 - 11 9.5 Melting Point/Freezing Point: NA 9.6 Initial Boiling Point/Boiling NA Range: 97 Flashpoint: NA 9.8 Upper/Lower Flammability NA Limits: 9.9 Vapor Pressure: NA 9 10 Vapor Density: NA Relative Density: 9.11 NA 9.12 Solubility: Slightly soluble 9.13 Partition Coefficient (log Pow): NA 9.14 Autoignition Temperature: NA 9.15 Decomposition Temperature: NA 9.16 40.000-80.000 cPs Viscosity: 9.17 Other Information: NA 10. STABILITY & REACTIVITY 10.1 Stability: Stable under normal conditions; unstable with heat or contamination. 10.2 Hazardous Decomposition Oxides of carbon (CO, CO<sub>2</sub>), nitrogen (NO<sub>x</sub>) and sulfur (SO<sub>2</sub>). Products: 10.3 Hazardous Polymerization: Will not occur. 10.4 Conditions to Avoid: Open flames, sparks, high heat, incompatible substances and direct sunlight. 10.5 Incompatible Substances: Avoid extreme heat and ignition sources. Store away from oxidizers. 11. TOXICOLOGICAL INFORMATION Absorption: YES 11.1 Routes of Entry Inhalation: YES Ingestion: Toxicity Data: 11.2 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 but is not presented in this document. 11.3 Acute Toxicity: Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea. Chronic Toxicity: 11.4 This material may aggravate any pre-existing skin condition (e.g., dermatitis) 11.5 Suspected Carcinogen: This product contains p-Phenylenediamine and Resorcinol, which are not carcinogenic to humans, but are listed as Group 3 carcinogens by the IARC. This product contains p-Phenylenediamine listed by ACGIH in group A4 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: The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure. 11.8 Biological Exposure Indices: 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. 122 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.

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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 11/19/2018 13. DISPOSAL CONSIDERATIONS 13 1 Waste Disposal: Products covered by this SDS, in their original form, when disposed as waste, are considered non-hazardous waste according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with local, state and federal regulations. Dispose of in accordance with federal, state and local regulations. 13.2 Special Considerations: California Waste Code: 331 14. TRANSPORTATION INFORMATION The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR. 49 CFR (GND): 14.1 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 SCT (MEXICO): 14.6 NOT REGULATED ADGR (AUS): 14.7 NOT REGULATED 15. REGULATORY INFORMATION 15.1 SARA Reporting This product contains Ammonium Hydroxide (as ammonia) and p-Phenylenediamine, substances subject to SARA Title Requirements: III, Section 313 reporting requirements. SARA Threshold Planning 15.2 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 Ammonium Hydroxide (Ammonia): 454 kg (1,000 lbs); p-Phenylenediamine: 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 (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 Controlled Products Regulations (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). Ammonium Hydroxide (as ammonia) is found on the following state criteria list: Florida Toxic Substances List (FL), 15.7 State Regulatory Information: Massachusetts Hazardous Substances List (MA), Pennsylvania Right-to-Know List (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 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: 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.

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SDS Revision: 2.0

SDS Revision Date: 11/19/2018

		16. OTHER INFO	DRMATION			
16.1	Other Information:	WARNING! CAUSES MILD SKIN IRRITATION. CAUSES EYE IRRITATION. For external use only. Use only as directed. Discontinue use immediately if irritation develops. Wash hands and exposed skin areas with soap and warm water thoroughly after handling. Do not eat, drink or smoke while using this product. Wear protective gloves and eye/face protection. IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If skin irritation occurs: get medical advice/attention. Store locked up.  KEEP LOCKED UP AND OUT OF REACH OF CHILDREN.  California Proposition 65: 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.  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. Tattoos, including black and temporary henna, may increase the risk of allergy, If a severe allergic reaction should occur, immediately seek medical attention. 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:					
16.4	Prepared for:	C-Care, LLC 979 Corporate Blvd Linthicum Heights, MD USA Tel: +1 (410) 850-0035 http://www.c-care-company.com	C·Care  Full Filling Service			
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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SDS Revision: 2.0

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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.	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

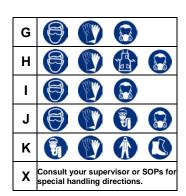
#### **HEALTH, FLAMMABILITY & REACTIVITY RATINGS:**

0	Minimal Hazard	
1 Slight Hazard		
2	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			





#### OTHER STANDARD ABBREVIATIONS:

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

#### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:					
Autoignition	toignition Minimum temperature required to initiate combustion in air with no other source				
Temperature	perature of ignition				
LEL	LEL Lower Explosive Limit - lowest percent of vapor in air, by volume, that w				
	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	/ <b>\ \ \</b> \ <b>\</b>		
W	Use No Water	HEALTH		
ОХ	Oxidizer	SPECIAL		
TREFOIL	Radioactive	PRECAUTIONS		

#### TOXICOLOGICAL INFORMATION:

LD <sub>50</sub>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC <sub>50</sub>	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD <sub>io</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>io</sub> , LD <sub>io</sub> , & LD <sub>o</sub> or	Lowest dose (or concentration) to cause lethal or toxic effects
TC, TCo, LCio, & LCo	
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	
TC	Transport Canada	
EPA	U.S. Environmental Protection Agency	
DSL	Canadian Domestic Substance List	
NDSL	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	WGK Wassergefährdungsklassen (German Water Hazard Class)	

#### WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

0	<b>®</b>			$\Theta$	(%)		
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:

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