1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	**PHYSAN 20™ DISINFECTANT GERMICIDE**
1.2	Chemical Name:	Quaternary Ammonium Compound
1.3	Synonyms:	EPA No. 55364-5
1.4	Trade Names:	Physan 20™ Disinfectant Germicide
1.5	Product Use:	Disinfectant/Sanitizer
1.6	Distributor's Name:	Maril Products, Inc.
1.7	Distributor's Address:	15421 Red Hill Ave, Tustin, CA 92780 USA
1.8	Emergency Phone:	**POISON CONTROL CENTER: +1-800-222-1222**
1.9	Business Phone / Fax:	Tel: +1 (800) 546-7711

2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	Prepared in accordance with UN Globally Harmonized standards. Intended to comply with OSHA 29 CFR 1910.1200. Canadian WHMIS and Australian Work Health and Safety. **DANGER! HARMFUL IF SWALLOWED. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. VERY TOXIC TO AQUATIC LIFE.** Classification: Acute Tox. 4(oral), Eye Dam 1, Aquatic Acute 1
2.2	Label Elements:	Hazard Statements (H): H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage. H400 - Very toxic to aquatic life. Precautionary Statements (P): P260 – Do not breathe dust or mist. P264 – Wash thoroughly after handling. P270 – Do not eat, drink or smoke when using this product. P273 – Avoid release to the environment. P280 – Wear protective gloves/protective clothes/ eye protection/ face protection. P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do not induce vomiting. P302+P361+P354 – IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. P363 – Wash contaminated clothing before reuse. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P316 – Get emergency medical help immediately. P321 – Specific treatment see section 4 (first aid) of this SDS. P305+P354+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P391 – Collect spillage. P405 – Store locked up. P501 – Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF).
2.3	Other Warnings:	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. Aqueous solution. **KEEP OUT OF REACH OF CHILDREN.**

3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m³) ACGIH ppm TLV	ACGIH ppm STEL	NOHSC ppm ES-TWA	NOHSC ppm ES-STEL	NOHSC ppm ES-PEAK	OSHA ppm PEL	OSHA ppm STEL	OSHA ppm IDLH	OTHER
PROPRIETARY	NA	NA	NA	25-85	NA	NA	NF	NF	NF	NA	NA	NA	
ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDES C12-C18	68391-01-5	BO3151000	269-919-4	7-13	NA	NA	NF	NF	NF	NA	NA	NA	
	Acute Tox. 4 (oral); Skin Corr. 1B; Aquatic Acute 1; H302, H314, H400												
ALKYL DIMETHYL ETHYL BENZYL AMMONIUM CHLORIDES C12-C14	85409-23-0	BS6125000	287-090-7	7-13	NA	NA	NF	NF	NF	NA	NA	NA	
	Acute Tox. 4 (oral); Skin Corr. 1B; Eye Dam. 1 Aquatic Acute 1; Aquatic Chronic 1; H302, H314, H318, H400, H410												
ETHANOL	64-17-5	KQ6300000	200-578-6	0.1-1	1000	3000	1000	1800	NF	1000	1900	3300	
	Flam. Liq. 2; H225												

4. FIRST AID MEASURES

4.1	First Aid:	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. Eyes: If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes lifting upper and lower lids, occasionally. Skin: Wash thoroughly with soap and water. In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Inhalation: Remove victim to fresh air at once. If breathing is difficult, administer oxygen. If breathing stops give artificial respiration. Keep person warm, quiet and get medical attention immediately.

4. FIRST AID MEASURES – cont'd

4.2	Effects of Exposure:	Ingestion:	If product is swallowed, immediate burning in mouth, throat and abdomen and severe swelling of the larynx, skeletal muscle paralysis affecting the ability to breathe, circulatory shock and convulsions.
		Eyes:	It is anticipated that this material will be corrosive to the eyes upon direct or prolonged contact. Irritating to the eyes direct contact can produce severe eye damage.
		Skin:	It is anticipated that this material will be corrosive to the skin upon direct or prolonged contact. Irritating to skin in (especially in some sensitive individuals), direct or prolonged contact can produce severe irritation to the skin especially after prolonged and/or repeated contact.
		Inhalation:	Inhalation vapors and mist of products can produce irritation of mucous membranes; however, inhalation of vapors in excess of the levels listed in Section 2 (Composition and Ingredient Information) can cause central nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).
4.3	Symptoms of Overexposure:	Ingestion:	Sensation of burning in mouth, throat and abdomen and severe swelling of the larynx, skeletal muscle paralysis affecting the ability to breathe, circulatory shock and convulsions.
		Eyes:	Exposure to vapors/fumes/mist/spray may cause eye irritation. Symptoms of overexposure may include redness, itching, irritation and watering.
		Skin:	May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.
		Inhalation:	Coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, nose and respiratory tract. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.
4.4	Acute Health Effects:	Causes corrosive burns. Brief exposures may cause irritation and defatting of the skin. Causes burns and may result in permanent injury to eyes including blindness. Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. May be fatal if inhaled. Symptoms may include headaches, dizziness, and drowsiness.	
4.5	Chronic Health Effects:	Ingestion of ethanol by pregnant women can cause reproductive toxicity to the fetus.	
4.6	Target Organs:	Eyes, Skin, Respiratory System, Digestive Tract, Central Nervous System (CNS).	
4.7	Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin) or impaired kidney function may be more susceptible to the effects of this substance.	

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARDS	0
PROTECTIVE EQUIPMENT	X

EYES	SKIN

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	Explosive mixtures can form with air. Combustion products are toxic. Solvent vapors can travel to an ignition source and flash back.
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 personnel. 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 (PPE). 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). Use ONLY non-sparking tools for recovery and cleanup. 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

7.1	Work & Hygiene Practices:	Avoid contact with skin and eyes. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water.
7.2	Storage & Handling:	Keep the container tightly closed and in a cool, well-ventilated place. Keep from freezing. Do not handle or store near an open flame, heat, or other sources of ignition. Prevent electrostatic charge buildup by using common bonding and grounding techniques.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

			ACGIH		NOHSC			OSHA			OTHER
8.1	Exposure Limits: ppm (mg/m^3)	CHEMICAL NAME(S)	TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
		ETHANOL	1000	3000	1000	1800	NF	1000	1900	3300	

8.2	Ventilation & Engineering Controls:	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.	
8.3	Respiratory Protection:	If exposure limits are exceeded or if irritation is experienced, NIOSH approved respiratory protection should be worn. Ventilation and other forms of engineering controls are often the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or emergency situations. 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, EU member states, or Australia.	
8.4	Eye Protection:	Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling this product. Always use protective eyewear when cleaning spills or leaks. Wear goggles and/or face shield if splashing or spraying is anticipated. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants. Have suitable eye wash water available. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).	
8.5	Hand Protection:	Use gloves constructed of chemical-resistant materials such as neoprene or heavy nitrile rubber if frequent or prolonged contact is expected. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, or the EU member states.	
8.6	Body Protection:	Avoid prolonged and/or repeated skin contact. Use clean and impervious protective clothing (e.g., neoprene or Tyvek®) if splashing or spraying conditions are present. Protective clothing should include long-sleeves, apron, boots and additional facial protection. If necessary, refer to appropriate standards of Canada, the EU member states, or U.S. OSHA.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Clear, colorless to straw liquid
9.2	Odor:	Benzaldehyde odor
9.3	Odor Threshold:	NA
9.4	pH:	6.5- 8.5 for 10% Aqueous Solution
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	>200°F (>94°C) – Pensky Martin Closed Cup
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	> 1
9.11	Relative Density:	0.988 (8.2 lbs/gal)
9.12	Solubility:	NA
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:	Carbon monoxide, carbon dioxide, toxic hydrogen chloride vapors.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, sparks and incompatible substances and direct sunlight.
10.5	Incompatible Substances:	Strong oxidizing agents, sources of ignition.

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 of the product, and is presented below: LD_{50} (oral, rat): 507 mg/kg; LD_{50} (dermal, rat): > 2000 mg/kg.					
11.3	Acute Toxicity:	Corrosive to skin and eyes. See also Section 4.4.					
11.4	Chronic Toxicity:	See Section 4.5					
11.5	Suspected Carcinogen:	NA					

11. TOXICOLOGICAL INFORMATION – cont'd

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 4.2
11.8	Biological Exposure Indices:	NE
11.9	Physician Recommendations:	Treat symptomatically.

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	This product is biodegradable.
12.2	Effects on Plants & Animals:	There are no specific data available for this product.
12.3	Effects on Aquatic Life:	Very toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with all applicable Federal, state, provincial and local regulations.
13.2	Special Considerations:	Although not considered a hazardous waste, the discarding or disposal of this material should be done at a properly permitted facility in accordance with the regulations of 40 CFR 262,263,264, and 268.

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):	UN1903, DISINFECTANTS, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS), 8, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.2	IATA (AIR):	UN1903, DISINFECTANTS, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS), 8, III (LTD QTY, IP VOL ≤ 0.5 L)	
14.3	IMDG (OCN):	UN1903, DISINFECTANTS, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS), 8, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.4	TDGR (Canadian GND):	UN1903, DISINFECTANTS, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS), 8, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.5	ADR/RID (EU):	UN1903, DESINFECTANTE LIQUIDO CORROSIVO, N.E.P., N.O.S. (COMPUESTOS DE AMONIO CUATERNARIO), 8, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.6	SCT (MEXICO):	UN1903, DISINFECTANTS, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS), 8, III (LTD QTY, IP VOL ≤ 5.0 L)	
14.7	ADGR (AUS):	UN1903, DISINFECTANTS, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS), 8, III (LTD QTY, IP VOL ≤ 5.0 L)	

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:	While three of four ingredients are listed on the TSCA Chemical Inventory, this product is regulated as a pesticide under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and not subject to the TSCA Inventory rules for FIFRA uses.
15.4	CERCLA Reportable Quantity:	NA
15.5	Other Federal Requirements:	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 HPR and the SDS contains all of the information required by the HPR. The components of this product are listed on the DSL/NDSL. WHMIS Class E, D1B (Corrosive, Toxic). 
15.7	State Regulatory Information:	Quaternary Ammonium Compounds is found on the following state criteria list: California Director's List of Hazardous Substances (CA); Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ) and Pennsylvania Right-to-Know List (PA). Ethanol is found on the following state criteria lists: AZ, CA, CT, FL, ID, MA, MN, NJ, PA and RI. 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). his 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
15.8	Other Requirements:	NA

16. OTHER INFORMATION

16.1	Other Information:	**DANGER! HARMFUL IF SWALLOWED. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. VERY TOXIC TO AQUATIC LIFE.** Use as directed. Discontinue use if irritation develops. Do not breathe dust or mist. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothes/ eye protection/ face protection. IF SWALLOWED: Rinse mouth. Do not induce vomiting. IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately. Specific treatment see section 4 (first aid) of this SDS. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage. Store locked up. **KEEP OUT OF REACH OF CHILDREN.**	
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 & Maril Products, Inc.'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:	**Maril Products, Inc.** 15421 Red Hill Ave, Suite D Tustin, CA 92780 USA Tel: +1 (714) 544-7711 Fax: +1 (714) 544-4830 http://www.physan.com	PHYSAN 20
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

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

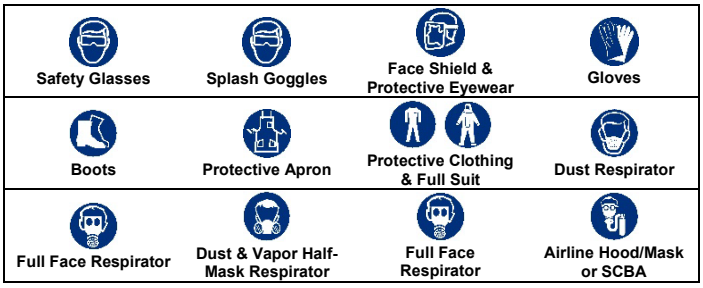
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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.**



OTHER STANDARD ABBREVIATIONS:

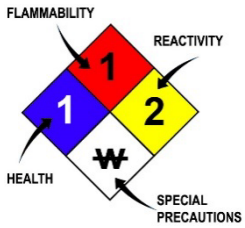
Carc	Carcinogenic
Irrit	Irritant
NA	Not Available
NR	No Results
ND	Not Determined
NE	Not Established
NF	Not Found
SCBA	Self-Contained Breathing Apparatus
Sens	Sensitization
STOT RE	Specific Target Organ Toxicity – Repeat Exposure
STOT SE	Specific Target Organ Toxicity – Single Exposure

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:

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_{lo}	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD_{lo}, LD_{lo}, & LD_o or TC, TC_o, LC_{lo}, & LC_o	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

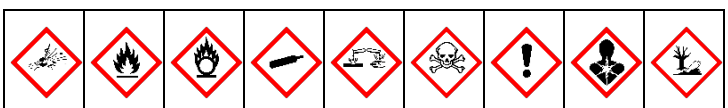
REGULATORY INFORMATION:

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