1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	**PLUM BROWN BARREL FINISH**
1.2	Chemical Name:	NA
1.3	Synonyms:	14130, 14145, PB5, PB-QT
1.4	Trade Names:	Plum Brown Barrel Finish
1.5	Product Use:	Metal Finishing
1.6	Distributor's Name:	Birchwood Casey.
1.7	Distributor's Address:	7887 Fuller Road, Suite #100, Eden Prairie, MN 55344 USA
1.8	Emergency Phone:	**ChemTrec +1 (800) 424-9300 / +1 (703) 527-3887** or **Poison Control Center +1 (866) 291-7152**
1.9	Business Phone / Fax:	+1 (952) 388-6717

NZ DISTRIBUTOR
Steve's Wholesale Ltd. Units 5 – 7 / 408
The Esplanade
Island Bay Wellington 6023
team@steveswholesale.nz
Emergency Contact: Steve Collings
0800 303 303
0274 905 708
Poison Control 0800 POISON (0800 764 766)

2. HAZARDS IDENTIFICATION

2.1 Hazard Identification:

This product is classified as a hazardous substance and as dangerous goods according to the classification criteria of [NOHSC: 1088 (2004)] and ADG Code (Australia).

DANGER! MAY CAUSE FIRE OR EXPLOSION; STRONG OXIDIZER. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. HARMFUL IF SWALLOWED. MAY CAUSE RESPIRATORY IRRITATION. TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

Hazard Statements (H): H271 – May cause fire or explosion; strong oxidizer. H314 – Causes severe skin burns and eye damage. H302 – Harmful if swallowed. H335 – May cause respiratory irritation. H411 – Toxic to aquatic life with long lasting effects.

Precautionary Statements (P): P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep away from clothing and other combustible materials. P260 – Do not breathe dust or mist. P264 – Wash with soap and water thoroughly after handling. P270 – Do not eat, drink, or smoke when using this product. P271 – Use only outdoors or in a well-ventilated area. P273 – Avoid release to the environment. P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection. P283 – Wear fire resistant or flame retardant clothing. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER +1 (866) 291-7152 or doctor/physician. P321 – Specific treatments see this container label and section 4 First Aid of this SDS. P330 – Rinse mouth. P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P363 – was contaminated clothing before reuse. P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P306+P360 – IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. P371+P380+P375 – In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. P370+P378 – In case of fire: Use fire-extinguishing media appropriate for surrounding materials. P403+P233 – Store in a well-ventilated place. Keep container tightly closed. P391 – Collect spillage. P405 - Store locked up. P420 – Store separately. P501 - Dispose of contents/ container to an approved waste disposal plant.

2.2	Effects of Exposure:	Eyes: Severe or permanent eye damage. Skin: Burns upon direct contact. Ingestion: Severe burns of mouth, throat, stomach. Inhalation: Severe irritation or burns in respiratory tract and mucous membranes. Possible lung damage.
2.3	Symptoms of Overexposure:	Eyes: Redness, burning, irritation, and swelling around eyes Skin: Redness, burning, itching, rash, blistering of skin. Ingestion: Nausea, vomiting, severe abdominal pain. Inhalation: Coughing, wheezing, swelling of throat, irritation in mucous membranes, difficulty breathing.
2.4	Acute Health Effects:	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful if swallowed. Causes burns. May be harmful if absorbed through skin.
2.5	Chronic Health Effects:	May damage the nervous system, kidney and/or liver.
2.6	Target Organs:	Eyes, skin, nervous system, kidneys, liver, respiratory system.

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 TLV	OSHA ppm STEL	OSHA ppm IDLH	OTHER
WATER	7732-18-5	ZC0110000	231-791-2	60-100	NA	NA	NF	NF	NF	NA	NA	NA	
SODIUM NITRATE	7631-99-4	WC560000	231-554-3	5-10	NA	NA	NF	NF	NF	NA	NA	NA	
	Ox. Sol. 3; Eye Irrit. 2; H272, H319												
POTASSIUM CHLORATE	3811-04-9	FO0350000	232-289-7	5-10	NA	NA	NF	NF	NF	NA	NA	NA	
	Ox. Sol. 1; Acute Tox. 4 *; Acute Tox. 4 *; Aquatic Chronic 2; H271, H332, H302, H411												
COPPER CHLORIDE, DIHYDRATE	13933-17-0	GL7040000	215-704-5	1-5	1	NA	NF	NF	NF	1	NA	NA	
	Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H301, H315, H319, H335												

3. COMPOSITION & INGREDIENT INFORMATION cont'd

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 TLV	OSHA ppm STEL	OSHA ppm IDLH	OTHER
NITRIC ACID	7697-37-2	QU5775000	231-714-2	1-5	2	4	2	4	NF	2	NA	25	
	Ox. Liq. 3; Skin Corr. 1A; H272, H314												

4. FIRST AID MEASURES

4.1 First Aid:

Ingestion: DO NOT INDUCE VOMITING. Contact Poison Control Center +1 (866) 291-7152 or the nearest Poison Control Center or local emergency telephone number for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.

Eyes: If product gets in the eyes, flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If the eyes or face become swollen during or following use, consult a physician or emergency room immediately.

Skin: Remove contaminated clothing and wash affected areas with soap and water. If discomfort persists and/or the skin reaction worsens, contact a physician immediately. Do not wear contaminated clothing until after it has been properly cleaned.

Inhalation: Remove victim to fresh air at once. Under extreme conditions, if breathing stops, perform artificial respiration. Seek immediate medical attention.

4.2 Medical Conditions Aggravated by Exposure:

Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin, blood, liver and kidney disorders.) or impaired kidney function may be more susceptible to the effects of this substance.

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARDS	2
PROTECTIVE EQUIPMENT	B
EYES / SKIN	

5. FIREFIGHTING MEASURES

5.1 Fire & Explosion Hazards:

May cause fire or explosion; strong oxidizer. May react with metals to release hydrogen gas, which can form explosive mixtures with air. The presence of large amounts of PLUM BROWN at the site of a fire could result in the generation of potentially hazardous amounts of chlorine gas and acid fumes.

5.2 Extinguishing Methods:

Use fire-extinguishing media appropriate for surrounding materials.

5.3 Firefighting Procedures:

As with any fire, firefighters should wear appropriate protective equipment including a MSHA/NIOSH approved or equivalent self-contained breathing apparatus (SCBA) and protective clothing. Fight fires as for surrounding materials. Hazardous decomposition products may be released. Thermal degradation may produce oxides of carbon, phosphorous, selenium and/or nitrogen, hydrocarbons and/or derivatives. Fire should be fought from a safe distance. 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.

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). Use safety glasses or safety goggles and face shield; use gloves and other protective clothing (e.g., apron, boots, etc.) to prevent skin contact.

Small Spills: Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible, inert material such as vermiculite or sand to soak up the product and place into an acid-resistant container for later disposal.

Large Spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. Recover as much free liquid as possible and collect in acid-resistant container. Use absorbent to pick up residue. Avoid discharging liquid directly into a sewer or surface waters.

7. HANDLING & STORAGE INFORMATION

7.1 Work & Hygiene Practices:

Avoid breathing mists or spray. Avoid eye and skin contact. Wear protective equipment when handling product. Keep out of the reach of children. Do not eat, drink or smoke when handling this product. Wash thoroughly after handling. Do not expose to heat and flame. Use only in ventilated areas. Keep out of the reach of children. Immediately clean-up and decontaminate any spills or residues.

7.2 Storage & Handling:

Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Store in acid-resistant containers. Keep containers covered when not in use. Avoid temperatures above 40°C (120°F). Keep away from incompatible substances (see Section 10). Protect containers from physical damage.

7.3 Special Precautions:

Empty containers may retain hazardous product residues.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Ventilation & Engineering Controls:	Use local or general 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).	
8.2	Respiratory Protection:	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.	
8.3	Eye Protection:	Safety glasses with side shields must be used when handling or using this product. A protective face shield is also recommended.	
8.4	Hand Protection:	Wear protective, chemical-resistant gloves (e.g., neoprene) when using or handling this product.	
8.5	Body Protection:	A chemical resistant apron and/or protective clothing are recommended when handling or using this product.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Clear pale blue liquid
9.2	Odor:	Odorless
9.3	Odor Threshold:	NA
9.4	pH:	1.0
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	> 102 °C (> 216 °F)
9.7	Flashpoint:	NA
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	< 1.0 (air = 1.0)
9.11	Relative Density:	1.13
9.12	Solubility:	Soluble
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:	Evaporation Rate: < 1.0 (ethyl ether = 1.0)

10. STABILITY & REACTIVITY

10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Reaction with organics and strong reducing agents can produce organoselenides and hydrogen selenide. Thermal decomposition may produce selenium, nitrogen, phosphoric and copper oxides.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Excessive heat, shock, friction.
10.5	Incompatible Substances:	Cyanides, water-reactive substances, strong reducing agents, chlorinated cleaners or sanitizers, combustible organic materials, most metals.

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 but is not presented in this document. Potassium chlorate : LD_{50} 1870 mg/kg. Copper chloride: LD_{50} 140 mg/kg.					
11.3	Acute Toxicity:	See Section 2.4					
11.4	Chronic Toxicity:	See Section 2.5					
11.5	Suspected Carcinogen:	Components in this product are listed by IARC as Group 3 (Not classifiable as to its carcinogenicity to humans).					
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 2.3					
11.8	Biological Exposure Indices:	NE					
11.9	Physician Recommendations:	Treat symptomatically.					

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	No data available.
12.2	Effects on Plants & Animals:	No data available.
12.3	Effects on Aquatic Life:	Very toxic to aquatic life with long lasting effects. Marine Pollutant – Cupric Chloride.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state, and federal laws and regulations. Contact the appropriate agency for specific information. Treatment, transport, storage and disposal of hazardous waste must be provided by a licensed facility or waste hauler.
13.2	Special Considerations:	U.S. EPA Hazardous Waste – Characteristic - Corrosive (D002).

14. TRANSPORTATION INFORMATION

14.1	49 CFR (GND):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION), 8, II, LTD QTY (IP VOL ≤ 1.0 L) CONSUMER COMMODITY; EXCEPTED QUANTITY
14.2	IATA (AIR):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION), 8,II, LTD QTY (IP VOL ≤ 0.1 L)
14.3	IMDG (OCN):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION), 8, II, LTD QTY (IP VOL ≤ 1.0 L) EXCEPTED QUANTITY Marine Pollutant – Cupric Chloride Solution.
14.4	TDGR (Canadian GND):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION), 8, II, LTD QTY (IP VOL ≤ 1.0 L)
14.5	ADR/RID (EU):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION), 8, II, LTD QTY (IP VOL ≤ 1.0 L) EXCEPTED QUANTITY
14.6	SCT (MEXICO):	UN3264, LIQUIDOS, CORROSIVOS, ACIDO, INORGANICO, N.E.P. (ACIDO NITRICO SOLUCIÓN), 8, II, CANTIDAD LIMITADA (IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION), 8, II, LTD QTY (IP VOL ≤ 1.0 L) EXCEPTED QUANTITY

* This product may also be shipped as an Excepted Quantity (Inner Package Volume ≤ 30 mL, Total Quantity ≤ 500 mL per Outer Package)

15. REGULATORY INFORMATION

HSR002632

15.1	SARA Reporting Requirements:	This product contains Nitric Acid a substance subject to SARA Title III, section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	302 TPQ (Nitric Acid): 1,000 lbs (454 kg)
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
15.4	CERCLA Reportable Quantity (RQ):	Nitric Acid: 1,000 lbs (454 kg).
15.5	Other Federal Requirements:	NA
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the MSDS 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 Class C (Oxidizing Material). WHMIS Class D1B (Materials Causing Immediate and Serious Toxic Effects).
15.7	State Regulatory Information:	Sodium nitrate is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), and Pennsylvania Right-to-Know List (PA). Nitric Acid is found on the following state criteria lists: FL, MA, MN, NJ, PA, and WA. Potassium chlorate is found on the following sate criteria list: PA and NJ. 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. REGULATORY INFORMATION – cont'd

15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC. Sodium nitrate: Harmful (XN); Oxidizer (O). Risk Phrases (R): 22-28 Safety Phrases (S): 17-24/25-3/7/9-36/37 Nitric Acid: Irritaant (Xi). Risk Phrases (R): 36/38 – Irritating to eyes and skin. Safety Phrases (S):1/2-23-26-36-45 – Keep locked up and out of reach of children. Do not breathe fumes/vapors. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. In case of accident or if you feel unwell seek medical advice immediately (show label where possible). Postassium chlorate: Oxidizer (O); Harmful (Xn); Environmental danger (N). Risk phrases (R): 9-20/22-51/53 Safety Phrases (S) 2-13-16-27-61

16. OTHER INFORMATION

SW revised 12.01.2021

16.1	Other Information:	**DANGER! May cause fire or explosion; strong oxidizer. Causes severe skin burns and eye damage. Harmful if swallowed. May cause respiratory irritation. Toxic to aquatic life with long lasting effects.** May be fatal if swallowed or harmful if inhaled. Causes severe burns to eyes and skin. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. Avoid breathing fume/vapors. Wash with soap and water thoroughly after handling. Do not eat, drink, or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. **KEEP LOCKED UP AND 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 & Birchwood Casey'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:	**Birchwood Casey** 7887 Fuller Road, Suite #100 Eden Prairie, MN 55344 USA Tel: +1 (952) 388-6701 Fax: +1 (952) 388/6702 http://www.birchwoodCasey.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

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

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
TLV	Threshold Limit Value
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
IDLH	Immediately Dangerous to Life and Health

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	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	
X	**Consult your supervisor or SOPs for special handling directions.**

OTHER STANDARD ABBREVIATIONS:

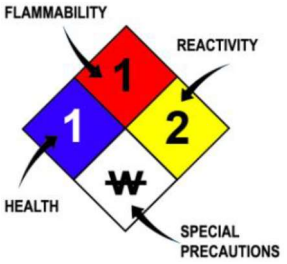
NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus
Flam.	Flammable
Liq.	Liquid
Sol.	Solid
Tox.	Toxicity
Irrit.	Irritation
Sens.	Senitization
Ox.	Oxidizing
Corr.	Corrosion
Repr.	Reproductive (Harm)
Asp.	Aspiration
Inh.	Inhalation
Dam.	Damage
STOT SE	Specific Target Organ Toxicity – Single Exposure
STOT RE	Specific Target Organ Toxicity – Repeated 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



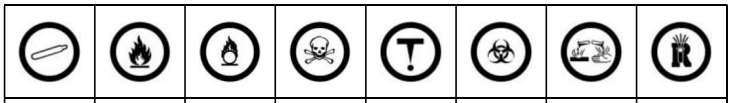
TOXICOLOGICAL INFORMATION:

LD_{50}	Lethal Dose (solids & liquids) which kills 50% of the exposed animals s
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:

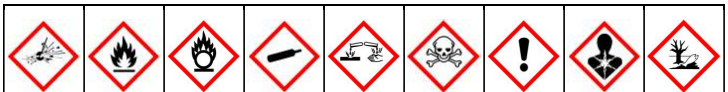


Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

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	Environ-ment