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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision Date: 3/14/2017 SDS Revision: 2.0 1. PRODUCT & COMPANY IDENTIFICATION 11 Product Name ABC BLACKENER 1.2 Chemical Name: Acid Mixture 1.3 Synonyms 45910, 45911 1.4 Trade Names: ABC Blackener 1.5 Product Use: Blackening Solution for Non-Ferrous Metals Distributor's Name: 1.6 Precision Brand Products, Inc. 2250 Curtiss Street, Downers Grove IL 60515 USA Distributor's Address: 17 18 Emergency Phone: ChemTrec +1 (800) 424-9300 / +1 (703) 527-3887 or Poison Control Center +1 (855) 281-1742 1.9 Business Phone / Fax: +1 (630) 969-7200 / +1 (630) 969-0310 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! TOXIC IF SWALLOWED. MAY CAUSE SEVERE SKIN BURNS OR EYE DAMAGE. MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE. Classification: Acute Tox. 3; Skin Corr. 1A; Serious Eye Dam. 1; Chronic Aquatic Tox. 1; STOT RE1. Label Elements: 2.2 Hazard Statements (H): H301 - Toxic if swallowed. H314 - Causes severe skin burns and eye damage. H373 - May cause damage to organs through prolonged or repeated exposure. H272 -May intensify fire; oxidizer. H410 – Very toxic to aquatic life with long lasting effects. Precautionary Statements (P): P220 - Keep/Store away from clothing/ combustible materials. P273 - Avoid release to the environment. P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 - Dispose of contents/ container to an approved waste disposal plant. 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. Keep out of reach of children. 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) ACGIH NOHSC **OSHA** ppm ppm ppm FS-FS-FS-CHEMICAL NAME(S) RTECS No. EINECS No. TI V STEL PEAK PFI STFI IDLH OTHER CAS No TWA STEL 7732-18-5 ZC0110000 231-791-2 60-100 NA NA NF NF NF NA NA NA WATER 16872-11-0 240-898-3 10-30 NA NF NF NF NA NA NA FLUOBORIC ACID Acute Toxicity-Oral 3; Skin Corrosion 1A; Serious Eye Damage 1; H301, H314 7758-99-8 NA NA 5-10 (1) NA NF NF NF (1) NA 1000 **CUPRIC SULFATE** Acute Toxicity 4; H302 7783-00-8 VS7175000 231-974-7 1-5 (0.2) NA (0.2) NF NF (0.2) NA NA SELENIOUS ACID Acute Toxicity-Inh 3; Acute Toxicity-Oral 3; STOT-Repeated Exp 2; Acute Aquatic Toxicity 1; Chronic Aquatic Toxicity 1; H301, H331, H400, H410 (1) (3) NF NF NF NA NA 1000 7664-38-2 TB6300000 231-633-2 1-5 PHOSPHORIC ACID Metal Corrosion 1; Skin Corrosion1B; H290, H314 7786-81-4 QR9600000 232-104-9 (0.1) NA NF NF NF 0.1-1 Acute Toxicity 4; Skin Irritation 2; Skin Sensitization 1; Respiratory Sensitization 1; Mutagenic 2; Carcinogenic 1A; NICKEL SULFATE

Reproductive Toxicity 1B; Specific Target Organ Toxicity – Repeated Exposure 1; Acute Aquatic Toxicity 1; Chronic

Aquatic Toxicity 1; H302, H315, H317, H332, H334, H350i, H360D, H372, H400, H410



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		A FIDST AID MEASURES
4.1	First Aid:	4. FIRST AID MEASURES Ingestion: DO NOT INDUCE VOMITING. Contact SafetyCall +1 (855) 281-1742 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	Effects of Exposure:	Eyes: Severe or permanent eye damage. Skin: Burns upon direct contact. Ingestion: Severe burns of mouth, throat, stomach.
4.3	Symptoms of Overexposure:	Inhalation: Severe irritation or burns in respiratory tract and mucous membranes. Possible lung damage. 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.
4.4	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.
4.5	Chronic Health Effects:	May damage the nervous system, kidney and/or liver.
4.6	Target Organs:	Eyes, Skin, Nervous System, Kidneys, Liver, Respiratory System, Spleen, Blood Forming Organs, Bones.
4.7	Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin conditions, and disorders of the target HEALTH 3
	Aggravated by Exposure.	organs (eyes, skin, respiratory system, liver, blood-forming organs) or impaired kidney function may be more supportible to the offsets of this
		Impaired kidney idirection may be more susceptible to the effects of this
		PROTECTIVE EQUIPMENT H
		EYES SKIN LUNGS
4.8	Notes to Physician:	This product contains <u>Selenious Acid</u> and is potentially fatal if ingested even in small amounts. 24-hour admission should be considered in asymptomatic or minimally symptomatic patients as delayed toxic effects including pulmonary edema and multi-organ failure may occur. 24/7 medical toxicology consultation is available at +1 (855) 281-1742.
		5. FIREFIGHTING MEASURES
5.1	Fire & Explosion Hazards:	Non-flammable. May react with metals to release hydrogen gas, which can form explosive mixtures with air. May intensity fire; oxidizer.
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 a 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.



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7.1	Work & Hygiene Practices:	7. HANDLING & STORAGE INFORMATION 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:	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.									
		8. EXPOSURE CO	ONTROLS	& PE	RSON	AL PF	ROTEC	TION			
3.1	Exposure Limits:		AC	GIH		NOHSC			OSHA		OTHER
	ppm (mg/m³)	CHEMICAL NAME(C)	71.17	ett:	F6 7344	ES-	ES-	DE:	CTC:	ID:]
		CHEMICAL NAME(S) CUPRIC SULFATE	TLV	STEL	ES-TWA NF	STEL NF	PEAK NF	PEL (1)	STEL	1000	
		SELENIOUS ACID	(1)	NA NA		NF NF	NF NF	(1)	NA NA	1000	
			(0.2)	NA (0)	(0.2)			(0.2)	NA	NA	
		PHOSPHORIC ACID	(1)	(3)	NF	NF	NF	NA	NA	1000	<u> </u>
0.0	V 0.E	NICKEL SULFATE	(0.1)	NA	NF	NF	NF	(1)	NA	NA	
8.2	Ventilation & Engineering Controls:	Use local or general exhaus handling of this product. E wash station).									
8.3	Respiratory Protection:	In instances where vapors o use only protection authorize CAS Standard Z94.4-93 at Australia.	ed by 29 CFR §	1910.13	4, applicat	le U.S. S	state regul	ations, or	the Can	adian	
8.4	Eye Protection:	Safety glasses with side shi shield is also recommended.	elds must be u	used whe	en handling	g or using	g this pro	duct. A p	orotective	e face	
8.5	Hand Protection:	Wear protective, chemical-re	sistant gloves	(e.g., ne	oprene) wh	en using	or handlir	ng this pr	oduct.		
8.6	Body Protection:	A chemical resistant apron and/or protective clothing are recommended when handling or using this product.									
		9. PHYSIC	AI & CH	FMIC	AI PRO)PFR	TIFS				
9.1	Appearance:	Clear, blue liquid	7 (2 0, 011.								
9.2	Odor:	Odorless									
9.3	Odor Threshold:	NA									
9.4	pH:	< 1.0									
9.5	Melting Point/Freezing Point:										
9.6	Initial Boiling Point/Boiling	NA									
9.7	Range: Flashpoint:	> 100 °C (> 212 °F)									
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:	1.099									
9.12	Solubility:	Complete (water)									
9.13	Partition Coefficient (log Pow):	NA								-	
9.14	Autoignition Temperature:	NA									
9.15	Decomposition Temperature:	NA									
9.16	Viscosity:	NA									
9.17	Other Information:	Evaporation Rate: < 1.0 (eth	vl ether = 1 0)								
		Evaporation rate. 11.0 (ctil	yr ctrici 1.0)								
10.4	Chabilitus		STABILIT	Y & R	EACTI	VITY					
10.1	Stability:	Stable at normal temperature									
10.2	Hazardous Decomposition Products:	Reaction with organics and decomposition may produce									
10.3	Hazardous Polymerization:	Will not occur.									
10.4	Conditions to Avoid: Incompatible Substances:	Excessive heat.									
10.5		10 11 1 11			sina agant	a ablaria	otod alaa	nore or c	anitizoro	comb	ustible organi



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision Date: 3/14/2017 SDS Revision: 2.0 11. TOXICOLOGICAL INFORMATION Inhalation: YES Absorption: YES Routes of Entry 11 1 Inaestion: YES 11.2 Toxicity Data: Solution: LD₅₀ (oral, rat) = 1,030 mg/kg; Phosphoric Acid: LD₅₀ (oral, rat) = 1,530 mg/kg; LD₅₀ (oral, rat) = 4,640 mg/kg; Nickel Sulfate: LD_{50} (oral, rat) = 361 mg/kg; LC_{50} (4h, rat) = 2.48 mg/L; Fluoboric Acid: LD_{50} (oral, rat) – 100 mg/kg; 11.3 Acute Toxicity: See Section 4.4 See Section 4.5 11.4 Chronic Toxicity Suspected Carcinogen: 11.5 Nickel Sulfate is listed as a human carcinogen (IARC Group 1, NTP) 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 contains nickel sulfate, which is reported to cause teratogenic effects in humans Reproductive Toxicity: This product is not reported to cause reproductive effects in humans. Irritancy of Product: 117 See Section 4.2 Biological Exposure Indices: 118 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 Effects on Aquatic Life: 12.3 Very toxic to aquatic life with long lasting effects. Phosphoric Acid: EC₅₀ (Daphnia magna, 12h) = 4.6 mg/L 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. Special Considerations: U.S. EPA Hazardous Waste - Characteristic - Corrosive (D002), Characteristic - Toxic (D010) 13 2 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): UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L) IATA (AIR): 14.2 UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 0.1 L) UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, IMDG (OCN): 14.3 PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L) 14.4 TDGR (Canadian GND): UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L) ADR/RID (EU): 14.5 UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L) SCT (MEXICO): 14 6 UN3264, LIQUIDOS, CORROSIVOS, ACIDO, INORGANICO, N.E.P. (ACIDO SELENIO, ACIDO FOSFORICO), 8, II, (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L) ADGR (AUS): 14.7 UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID. PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L) 15. REGULATORY INFORMATION This product contains Selenious Acid, Cupric Sulfate and Phosphoric Acid, substances subject to SARA Title III, section 15.1 SARA Reporting Requirements: 313 reporting requirements. SARA TPO: 152 15.3 TSCA Inventory Status: The components of this product are listed on the TSCA Inventory. Selenious Acid: 10 lbs (4.54 kg); Cupric Sulfate: 10 lbs (4.54 kg); Phosphoric Acid: 5,000 lbs (2,270 kg) 15.4 CERCLA Reportable Quantity 15.5 Other Federal Requirements 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 E (Corrosive Material). WHMIS Class D1 (Materials Causing Immediate and Serious Toxic Effects).



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		15. REGULATORY INFORMATION – cont'd
15.7	State Regulatory Information:	Selenious Acid is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN), Pennsylvania Right-to-Know List (PA), and Wisconsin Hazardous Substances List (WI). Nickel Sulfate is found on the following state criteria lists: MA, and PA. Fluoboric Acid is found on the following state criteria lists: NJ. Phosphoric Acid is found on the following state criteria lists: FL, MA, MN, and 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:	NA
		16. OTHER INFORMATION
16.1	Other Information:	DANGER! TOXIC IF SWALLOWED. MAY CAUSE SEVERE SKIN BURNS OR EYE DAMAGE. MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE. Keep/Store away from clothing/ combustible materials. Avoid release to the environment. P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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 & Precision Brand 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:	Precision Brand Products, Inc. 2250 Curtiss Street Downers Grove, IL 60515 USA Tel: +1 (630) 969-7200 Fax: +1 (630) 969-0310 http://www.precisionbrand.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



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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. 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	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

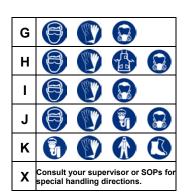
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:

Α			
В			
С		THE STATE OF THE S	
D		THE STATE OF THE S	
Е			
F		TH.	





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 sou 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	FLAMMABILITY
1	Slight Hazard	\
2 Moderate Hazard		REACTIVITY
3	Severe Hazard	
4 Extreme Hazard ACD Acidic ALK Alkaline		
COR	Corrosive	/ \ \ \
₩	Use No Water	HEALTH 🔪
ОХ	Oxidizer	SPECIAL
TREFOIL	Radioactive	PRECAUTIONS

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 _{Io}	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD _{Io} , LD _{Io} , & LD _o or	Lowest dose (or concentration) to cause lethal or toxic effects
TC, TC _o , LC _{io} , & LC _o	
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
TL _m	Median threshold limit

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System			
DOT	U.S. Department of Transportation			
TC	Transport Canada			
EPA	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:

0	®	(2)	(X)	Θ	(%)		
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:

	③		\Diamond			\Diamond		*
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment



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1								10.						
	T =		PRODUC	F & COM	PANY	IDE	NTIF	ICA	TIO	N				
1.1	Product Name:	ABC SEA	LANT											
1.2	Chemical Name:	Aqueous Solut	ion											
1.3	Synonyms:	45915, 45916												
1.4	Trade Names: Product Use:	ABC Sealant [™]	otrato Dienlaco	Mater Prote	et Surfac	oc from	Corro	cion						
1.6	Distributor's Name:	Lubricate, Penetrate, Displace Water, Protect Surfaces from Corrosion Precision Brand Products. Inc.												
1.7	Distributor's Address:	2250 Curtiss S			15 USA									
1.8	Emergency Phone:	ChemTrec +				887 or	Pois	on Co	ntro	Cen	ter +	(855)	281-1	742
1.9	Business Phone / Fax:	+1 (630) 969-7			0, 02. 0	001 01	1 0.0	011 01	,,,,,,	0011		(000)		<i>1</i> -1 -
		1 1 (000) 000 7	200 7 1 (000)	000 0010										
			2. HA	ZARDS I	DENT	IFIC/	ATIC	N						
2.1	Hazard Identification:	This product is classified as a hazardous substance but not as dangerous goods according to the classification criteria of [NOHSC: 1088 (2004)] and ADG Code (Australia). DANGER! MAY CAUSE AN ALLERGIC SKIN REACTION.												
2.2	Label Elements:	Classification:												
2.2	Lauci Elements.	Hazard Statements (H): H317 – May cause an allergic skin reaction. Precautionary Statements (P): P261 Avoid breathing mist/sprays. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/eye protection. P302+P352 – IF ON SKIN: Wash with plenty of soap and water. P333+P313 – If skin irritation or rash occurs: Get medical advice/attention. P321 – Specific treatment – see section 4 of this Safety Data Sheet. P363 Wash contaminated clothing before reuse. P501 - Dispose of contents/container to licenses treatment, storage and disposal facility (TSDF).												
2.3	Other Warnings:		an exposure	or medical inq	uiry invol	ving thi	s prod	uct, pl	ease (l poison contro
	I													
		3. CC	MPOSITI	<u>ON & INC</u>	REDI	<u>ENT</u>	INF	<u>ORI</u>						
											IMITS I	N AIR (m		
						ACC			NOHSC			OSHA		
						pp	m	ES-	ppm ES-	ES-		ppm		
СНЕМІ	CAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	TWA	STEL	PEAK	PEL	STEL	IDLH	OTHER
WATE	R	7732-18-5	NA	231-791-2	60-100	NE	NE	NF	NF	NF	NE	NE	NE	
		65997-10-6	NA	NA	7-13	NA	NA	NF	NF	NF	NA	NA	NA	
MODII	FIED ROSIN		•	1					· ·					
TALL	OILFATTY ACIDS		NA	263-107-3	7-13	NA	NA	NF	NF	NF	NA	NA	NA	
.,		Skin Sens. 1; F												
ETHE	NE, HOMOPOLYMER			N I A	15.40	LALA	N. A	NE I	NE	NIE	N.I.A.	A L A		
		68441-17-8	NA	NA	5-10	NA	NA	NF	NF	NF	NA	NA	NA	
		68441-17-8	[NA	NA	5-10	NA	NA	NF	NF	NF	NA	NA	NA	
			4.	FIRST All	D ME	SUF	RES							
4.1	First Aid:	Ingestion: DO em	4. I	FIRST AII VOMITING: one number foully, keep vict	D MEA	ASUF Call +1 once and	RES (855) 2 d instru	281-17 uctions	42 or See o redu	the ne	arest ediate	Poison medic	Control al attent ation.	ion. If vomiting
4.1	First Aid:	Ingestion: DO em occ	4. In NOT INDUCE ergency telephours spontaneo product gets in	FIRST AII VOMITING. one number for usly, keep vict the eyes, flus open to ensure	D MEA Contact (or assista im's head sh eyes to e comple	ASUF Call +1 (nce and I lowere horoug te flush	RES (855) 2 d instrued (for hly winding. In	281-17 uctions ward) th cop f the e	42 or . See o redu	the ne k imm ice the moun	arest ediate e risk o	Poison medic of aspir	Control al attent ation. or at lea	ion. If vomiting ast 15 minutes,
4.1	First Aid:	Ingestion: DO em occ Eyes: If p hol use Skin: Rei	A. I NOT INDUCE ergency teleph curs spontaneo product gets in ding eyelid(s) of e, consult a phy move contamir skin reaction	FIRST AII VOMITING. one number for usly, keep vict the eyes, flus open to ensure sician or emer ated clothing worsens, conta	D MEA Contact (or assista im's head sh eyes the comple- rgency ro and wash	Call +1 once and lowere horoug te flush om imm	(855) 2 d instrued (for hly wir ing. Inediate	281-17 uctions ward) th cop f the e ely. as wit	42 or . See o redu ous a yes or	the nek immuce the mount face	arest ediate e risk of ts of v becon	Poison medic of aspir vater for ne swo	Control al attent ation. or at lea	ion. If vomiting ast 15 minutes, ing or following persists and/or
4.1	First Aid:	Ingestion: DO em occ Eyes: If p hold use Skin: Rethe has Inhalation: Re	A. In the property of the property of the product gets in the product gets in the product gets in the product gets in the property of the product of the property of the product of the property of the product of t	FIRST AII VOMITING. one number for usly, keep vict the eyes, flust open to ensure sician or emeriated clothing worsens, contact cleaned. fresh air at one nedical attention	Contact (or assistation's head im's	ASUF Call +1 (nce and I lowere horoug te flush om imm n affect sician i	(855) 2 d instrued (form hly wing. Inediate ed are mmed	281-17 uctions ward) the cop f the e ely. as wit iately.	42 or . See o redu ous a yes or n soap Do no	the nek immuce the mount face and of wea	arest ediate e risk of ts of v becon water r cont	Poison medic of aspir vater for ne swo If dis- aminate	Control al attent ation. or at lea llen duri comfort ed cloth	ion. If vomiting ast 15 minutes, ing or following persists and/or ing until after it
4.1	First Aid: Effects of Exposure:	Ingestion: DO em occ Eyes: If p hold use Skin: Rel the has Inhalation: Re Se Eyes: M Skin: Fr Ingestion: No	PNOT INDUCE ergency telephores spontaneo product gets in ding eyelid(s) de, consult a phymove contamir skin reaction is been properly move victim to ek immediate nild irritation upor equent or proleausea, gastroir	FIRST AII VOMITING. one number for usly, keep vict the eyes, flus open to ensure sician or emer lated clothing worsens, conta cleaned. fresh air at one nedical attention on direct contact onged contact testinal irritation	Contact (or assistation assistation) head on a comple regency roand waslact a phy ce. Under the contact and irritation, diarrh	ASUF Call +1 (noce and I lowere horough te flush om immen affect sician i er extrement te and	(855) 2 d instructed (formall help with ing. Inhediate ed are mmed	281-17 uctions ward) th cop f the e ely. as wit iately.	42 or . See o redu ous a yes on n soap Do no	the nek immuce the mount face and of wea	arest ediate e risk of ts of v becon water r cont	Poison medic of aspir vater for ne swo If dis- aminate	Control al attent ation. or at lea llen duri comfort ed cloth	Center or local ion. If vomiting ast 15 minutes, ing or following persists and/or ing until after it icial respiration
		Ingestion: DO em occ Eyes: If p hol use Skin: Re the has Inhalation: Re Eyes: M Skin: Fr Ingestion: N: Inhalation: M Eyes: Re	PNOT INDUCE ergency teleph curs spontaneo oroduct gets in ding eyelid(s) of e, consult a phy move contamir skin reaction of see the property move victim to ek immediate mild irritation upon requent or prole ausea, gastroir lild irritation of upon edness, burning edness, burning edness, burning edness, telepart telepart or prole edness, burning edness, burning edness, burning edness, burning edness, telepart telepart edness, burning edness, ed	FIRST AII VOMITING. one number for usly, keep vict the eyes, flus open to ensure sician or emer lated clothing worsens, conta cleaned. fresh air at one medical attention on direct conta onged contact latestinal irritatic upper respirato g, irritation, an	D MEA Contact (or assista im's head sh eyes to e comple rgency ro and wast act a phy ce. Unde on. ct. may irrita on, diarrh ory tract. d swelling	ASUF Call +1 (nce and I lowere horoug te flush om imm n affect sician i er extrer te and ea.	RES (855) 2 d instructed (formula formula form	281-17 uctions ward) the cop f the ely. as wit iately. ndition	42 or . See o reduous a soap Do no	the nek immuce the mount of ace	arest ediate e risk of ts of v becon water r cont	Poison medic of aspir vater for ne swo If dis- aminate	Control al attent ation. or at lea llen duri comfort ed cloth	ion. If vomiting ast 15 minutes, ing or following persists and/or ing until after it
4.2	Effects of Exposure:	Ingestion: DO em occ Eyes: If p hol use Skin: Re Inhalation: Re Eyes: M Skin: Fr Ingestion: N: Inhalation: M Eyes: Re Skin: Re Inhalation: M	A. D NOT INDUCE ergency teleph curs spontaneo product gets in ding eyelid(s) of expensive consult a phymove contamination of the consult and the consult are quent or prolument	FIRST AII VOMITING. one number for usly, keep vict the eyes, flus open to ensure sician or emeriated clothing worsens, contact cleaned. fresh air at one nedical attention on direct contact onged contact thestinal irritatic upper respirato g, irritation, an g, itching, rash g, severe abdo	D MEA Contact (or assista im's head sh eyes to e comple rgency ro and wast act a phy ce. Unde on. ct. may irrita on, diarrh ory tract. d swelling a, and sca ominal pa	ASUF Call +1 (noce and I lowere horoug te flush om imm n affect sician i er extrer te and ea.	RES (855) 2 d instructed (formula formula form	281-17 uctions ward) th cop th cop f the e ly. as wit iately. derma	42 or . See o redu ous a yes on soap Do no so, if br tititis.	the ne k imm coe this mount of ace of and of weathin	arest ediate e risk (ts of v becon water. r cont	Poison medic of aspir vater fone swo If disa aminato	Control al attent ation. or at lea llen duri comfort ed cloth	ion. If vomiting ast 15 minutes, ing or following persists and/or ing until after it
4.2	Effects of Exposure:	Ingestion: DO em occ Eyes: If p hol use Skin: Rei the has Inhalation: Re Eyes: M Skin: Fr Ingestion: N: Inhalation: M Eyes: Re Skin: Re Inhalation: M Inhalation: M Inhalation: N: Inhalation: C	PNOT INDUCE ergency teleph curs spontaneo oroduct gets in ding eyelid(s) of e, consult a phy move contamir skin reaction of seen properly move victim to ek immediate mild irritation upon requent or prole ausea, gastroir lild irritation of upon edness, burning edness, burning edness, burning edness, burning edness, service edness, burning edness, burning edness, service edness, ed	FIRST AII VOMITING. one number for usly, keep vict the eyes, flus open to ensure sician or emeriated clothing worsens, conta cleaned. fresh air at one nedical attention on direct conta onged contact thestinal irritati upper respirato g, irritation, an g, itching, rash g, severe abdo zing, swelling o	D MEA Contact (or assista im's head sh eyes to e comple regency ro and wast act a phy ce. Unde on. ct. may irrita on, diarrh ory tract. d swelling a, and sca ominal pa of throat,	ASUF Call +1 ince and I lowere horoug te flush om imm n affect sician i er extrent te and ea.	RES (855) 2 d instructed (formula with ing. It is need are mediated are mediated are caused as a second cause in in minimum and in minimum are considered as a second are second as a second as a second are second as a second as a second are second as a second as a second are	281-17 uctions ward) th cop th cop f the e ly. as wit iately. derma	42 or . See o redu ous a yes on soap Do no so, if br tititis.	the ne k imm coe this mount of ace of and of weathin	arest ediate e risk (ts of v becon water. r cont	Poison medic of aspir. vater fone swo If disa aminato	Control al attent ation. or at lea llen duri comfort ed cloth	ion. If vomiting ast 15 minutes, ing or following persists and/or ing until after it



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			D MEASURES	– cont	'd					
4.6	Target Organs:	Eyes, skin, respiratory system.								
1.7	Medical Conditions Aggravated by Exposure:	Persons with pre-existing central						1		
	Aggravated by Exposure.	neurological conditions, skin disord	ers, chronic respiratory	diseases,	FLAMM	ABILIT	Υ			0
		or impaired liver or kidney function s	should avoid exposure.		PHYSIC					0
					PROTE			MENT		В
					EYES	SKI	N			
		5 FIDEFI	GHTING MEAS	IIDES						
.1	Fire & Explosion Hazards:	Water-based product. Non-flammab			urrounding	firo		1		
.2	Extinguishing Methods:	Carbon dioxide, foam, water spray,	Halon (if permitted), dr.	chemical	artinguicher					
5.3	Firefighting Procedures:	As with any fire, firefighters sl					ludina	a		
	Thenghang Troocdarco.	MSHA/NIOSH approved or equival								
		clothing. Hazardous decomposition	products may be relea	sed. Thern	nal degrada	tion may	protectiv	e <		0
		oxides of carbon, and/or nitrogen,								/
		safe distance. Prevent runoff from								
		water supply, or any natural waterw			J	•	•			
_	10.11		AL RELEASE N							4- 0
.1	Spills:	Before cleaning any spill or leak, Equipment (PPE). Use safety glass								
		apron, boots, etc.) to prevent skin c		iiu iace sii	ieiu, use gic	ives and	i otner p	rolective	e ciotiiii	g (e.
		Small Spills: Wear appropriate prot		lina aloves	and protec	tive eve	wear I	lse a no	n-comb	ustih
		inert material such as vermiculite or	sand to soak up the pro	nduct and r	place into a	containe	er for late	er dispos	sal	usub
		Large Spills: Keep incompatible m								om s
		or release. Isolate immediate haza								
		done with minimal risk. Wear app								
		Recover as much free liquid as pos								
		discharging liquid directly into a sev	ver or surface waters.							
		7 HANDLING	CTODACE IN		TION					
	Mark 9 Hygiana Drasticas	7. HANDLING &				mont w	han han	dling pr	aduat K	
1.1	Work & Hygiene Practices:	Avoid breathing mists or spray. Avo	id eye and skin contact.	Wear prot	ective equip					
'.1	Work & Hygiene Practices:	Avoid breathing mists or spray. Avo of the reach of children. Do not e	id eye and skin contact. eat, drink or smoke wh	Wear prot en handlir	ective equip					
		Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan	id eye and skin contact. eat, drink or smoke wh ninate any spills or resid	Wear prot en handlir ues.	ective equip g this prod	uct. W	ash tho	roughly	after ha	andlin
	Work & Hygiene Practices: Storage & Handling:	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-	id eye and skin contact. eat, drink or smoke wh ninate any spills or resid ventilated location (e.g	Wear prot en handlir ues. , local ext	ective equip g this prod naust ventila	uct. W	ash thoins) away	roughly y from	after ha	andlir
.2		Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-sunlight. Keep away from incompat	id eye and skin contact. eat, drink or smoke wh ninate any spills or resid ventilated location (e.g ible substances (see Se	Wear prot en handlir ues. , local ext	ective equip g this prod naust ventila	uct. W	ash thoins) away	roughly y from	after ha	andlir
.2	Storage & Handling:	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-	id eye and skin contact. eat, drink or smoke wh ninate any spills or resid ventilated location (e.g ible substances (see Se	Wear prot en handlir ues. , local ext	ective equip g this prod naust ventila	uct. W	ash thoins) away	roughly y from	after ha	andlin
.2	Storage & Handling:	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-sunlight. Keep away from incompat	id eye and skin contact, eat, drink or smoke who ninate any spills or residuentilated location (e.g. ible substances (see Sedous product residues.	Wear proten handlir ues. , local extection 10).	ective equip ig this prod naust ventila Protect cont	uct. W ation, far ainers fr	ash thoins) away	roughly y from	after ha	andlin
7.2	Storage & Handling: Special Precautions: Exposure Limits:	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-sunlight. Keep away from incompat Empty containers may retain hazard	id eye and skin contact, eat, drink or smoke who ninate any spills or residuentilated location (e.g. ible substances (see Sedous product residues.	Wear proten handling ues. , local extection 10).	ective equip ig this prod naust ventila Protect cont	uct. W ation, far ainers fr	ash thoins) away	roughly y from	after ha	andlin
7.1	Storage & Handling: Special Precautions:	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-sunlight. Keep away from incompat Empty containers may retain hazard	id eye and skin contact. eat, drink or smoke wh ninate any spills or resid ventilated location (e.g ible substances (see Se dous product residues. ROLS & PERSO ACGIH	Wear proten handling ues. , local extection 10). NORL P NOHSC ES-	ective equip g this prod naust ventila Protect cont	uct. W ation, far ainers fr	ash thorage and the complex of the c	y from sical da	after ha	andlin
7.2	Storage & Handling: Special Precautions: Exposure Limits:	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-sunlight. Keep away from incompat Empty containers may retain hazard 8. EXPOSURE CONTR	id eye and skin contact. eat, drink or smoke when the any spills or residuentilated location (e.g. ible substances (see Selous product residues. ROLS & PERSO ACGIH TLV STEL ES-TW	Wear proten handling ues. , local extection 10). PNAL P NOHSC ES- A STEL	ective equipg this production protect contect conte	uct. W ation, far ainers fr	ns) away	y from sical da	after ha	andlin
7.2	Storage & Handling: Special Precautions: Exposure Limits: ppm (mg/m³)	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-sunlight. Keep away from incompat Empty containers may retain hazard 8. EXPOSURE CONTR CHEMICAL NAME(S) NA	id eye and skin contact. eat, drink or smoke when the any spills or residuentilated location (e.g., ible substances (see Selous product residues.) ROLS & PERSO ACGIH TLV STEL ES-TW NA NA NF	Wear proten handling ues. , local extection 10). PNAL P NOHSC A STEL NF	ective equipg this production protect content	uct. W ation, far ainers fr TION PEL NA	osha stel NA	y from sical dan	after ha	andlin
7.3	Storage & Handling: Special Precautions: Exposure Limits:	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-sunlight. Keep away from incompat Empty containers may retain hazard 8. EXPOSURE CONTE CHEMICAL NAME(S) NA Use local or general exhaust ventilians.	id eye and skin contact. eat, drink or smoke when the any spills or residuentiated location (e.g. ible substances (see Selous product residues. ROLS & PERSO ACGIH TLV STEL ES-TW NA NA NF ation to effectively removes.	Wear proten handling ues. In local extention 10). INAL P NOBSC A STEL NF OVE and proten handling in the protein in the p	ective equipg this produced the protect content of the protect conte	ation, far ainers fr TION PEL NA p of vap	OSHA STEL NA DOORS OF IN	y from sical dan	after hat heat and mage. OTHER erated fi	andlin
7.3	Storage & Handling: Special Precautions: Exposure Limits: ppm (mg/m³) Ventilation & Engineering	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontan Use and store in a cool, dry, well-sunlight. Keep away from incompat Empty containers may retain hazard 8. EXPOSURE CONTR CHEMICAL NAME(S) NA	id eye and skin contact. eat, drink or smoke when the any spills or residuentiated location (e.g. ible substances (see Selous product residues. ROLS & PERSO ACGIH TLV STEL ES-TW NA NA NF ation to effectively removes.	Wear proten handling ues. In local extention 10). INAL P NOBSC A STEL NF OVE and proten handling in the protein in the p	ective equipg this produced the protect content of the protect conte	ation, far ainers fr TION PEL NA p of vap	OSHA STEL NA DOORS OF IN	y from sical dan	after hat heat and mage. OTHER erated fi	d dire
.2	Storage & Handling: Special Precautions: Exposure Limits: ppm (mg/m³) Ventilation & Engineering	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontant. Use and store in a cool, dry, well-sunlight. Keep away from incompate Empty containers may retain hazard. 8. EXPOSURE CONTECTION OF THE CHEMICAL NAME(S) NA Use local or general exhaust ventile handling of this product. Ensure a wash station).	id eye and skin contact. eat, drink or smoke when the smoke and spills or residuentiated location (e.g., ible substances (see Selous product residues. ROLS & PERSO ACGIH TLV STEL ES-TW NA NA NF attion to effectively remaining appropriate decontaming	Wear proten handling ues. , local extection 10). WAL P NOHSC ES- A STEL NF Ove and proation equip	ROTEC ES-PEAK NF event buildu metric equipment is av	TION PEL NA p of vapailable (OSHA STEL NA DORS OF NA (e.g., sin	y from sical dan	after hat heat and mage. OTHER erated fi	andlin
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7.2	Storage & Handling: Special Precautions: Exposure Limits: ppm (mg/m³) Ventilation & Engineering Controls:	Avoid breathing mists or spray. Avo of the reach of children. Do not e Immediately clean-up and decontant. Use and store in a cool, dry, well-sunlight. Keep away from incompate Empty containers may retain hazard. 8. EXPOSURE CONTRUMENTAL NAME(S) NA Use local or general exhaust ventile handling of this product. Ensure a wash station). In instances where vapors or sprays use only protection authorized by 25 CAS Standard Z94.4-93 and app	id eye and skin contact. eat, drink or smoke when the any spills or residuentiated location (e.g., ible substances (see Selous product residues. ROLS & PERSC ACGIH TLV STEL ES-TW NA NA NF ation to effectively remorappropriate decontaminus of this product are gered CFR §1910.134, appli	Wear proten handling ues. , local extection 10). INAL P NOHSC ES- STEL NF ove and protention equipmerated, an cable U.S.	ective equiper general transfer equiper service equiper equiper expected ex	TION PEL NA p of vapailable (y protecations, o	osha osha osha osha stel NA oors or n (e.g., sin r the Cai	y from sical dar	after hat heat and mage. OTHER erated fi	d dire
7.2	Storage & Handling: Special Precautions: Exposure Limits: ppm (mg/m³) Ventilation & Engineering Controls: Respiratory Protection:	Avoid breathing mists or spray. Avo of the reach of children. Do not elimmediately clean-up and decontant. Use and store in a cool, dry, well-sunlight. Keep away from incompate Empty containers may retain hazard. 8. EXPOSURE CONTRUCTORY CHEMICAL NAME(S) NA Use local or general exhaust ventile handling of this product. Ensure a wash station). In instances where vapors or sprays use only protection authorized by 25 CAS Standard Z94.4-93 and app Australia.	id eye and skin contact. eat, drink or smoke when the any spills or residue ventilated location (e.g., ible substances (see Sections product residues. ROLS & PERSO ACGIH TLV STEL ES-TW NA NA NA NA attion to effectively remoral propropriate decontaminals of this product are get a CFR §1910.134, applicable standards of C	Wear proten handling ues. , local extection 10). NAL P NOHSC A STEL NF Dive and proper ation equipments and proper ation equipments and proper ation equipments.	ROTEC ES-PEAK NF event buildu pment is av d respirator State regula rovinces, E	TION PEL NA p of vapailable (y protections, o C mem	OSHA STEL NA POORS OF INC. (e.g., sin r the Cal ber Stat	IDLH NA nist gen nik, safeteeded, nadian tes, or	after hat heat and mage. OTHER erated fi	andlin
.2	Storage & Handling: Special Precautions: Exposure Limits: ppm (mg/m³) Ventilation & Engineering Controls:	Avoid breathing mists or spray. Avo of the reach of children. Do not elimmediately clean-up and decontant. Use and store in a cool, dry, well-sunlight. Keep away from incompate Empty containers may retain hazard. 8. EXPOSURE CONTRUCTORY CHEMICAL NAME(S) NA Use local or general exhaust ventile handling of this product. Ensure a wash station). In instances where vapors or sprays use only protection authorized by 25 CAS Standard Z94.4-93 and app Australia. Safety glasses with side shields must be supported to the control of the control o	id eye and skin contact. eat, drink or smoke when the any spills or residue ventilated location (e.g., ible substances (see Sections product residues. ROLS & PERSO ACGIH TLV STEL ES-TW NA NA NA NA attion to effectively remoral propropriate decontaminals of this product are get a CFR §1910.134, applicable standards of C	Wear proten handling ues. , local extection 10). NAL P NOHSC A STEL NF Dive and proper ation equipments and proper ation equipments and proper ation equipments.	ROTEC ES-PEAK NF event buildu pment is av d respirator State regula rovinces, E	TION PEL NA p of vapailable (y protections, o C mem	OSHA STEL NA POORS OF INC. (e.g., sin r the Cal ber Stat	IDLH NA nist gen nik, safeteeded, nadian tes, or	after hat heat and mage. OTHER erated fi	andlir
1 2 3	Storage & Handling: Special Precautions: Exposure Limits: ppm (mg/m³) Ventilation & Engineering Controls: Respiratory Protection:	Avoid breathing mists or spray. Avo of the reach of children. Do not elimmediately clean-up and decontant. Use and store in a cool, dry, well-sunlight. Keep away from incompate Empty containers may retain hazard. 8. EXPOSURE CONTR CHEMICAL NAME(S) NA Use local or general exhaust ventile handling of this product. Ensure a wash station). In instances where vapors or sprays use only protection authorized by 25 CAS Standard Z94.4-93 and app Australia. Safety glasses with side shields mushield is also recommended.	id eye and skin contact. eat, drink or smoke when the any spills or residue ventilated location (e.g., ible substances (see Sedous product residues. ROLS & PERSO ACGIH TLV STEL ES-TW NA NA NF ation to effectively remoration to effective the effective to effective the effective to effective the effective to effective the effecti	Wear proten handling ues. , local extection 10). NAL P NOHSC A STEL NF OVE and protent ation equipmerated, and cable U.S. anadian P ling or using the same and single using the same and protent ation equipmerated.	ROTEC ES-PEAK NF event buildu pment is av d respirator State regula rovinces, E	TION PEL NA p of vapailable (y protections, o C mem uct. A p	OSHA STEL NA Ocean or n (e.g., sin tion is no r the Cal ber Stat	IDLH NA nist gen nik, safeteeded, nadian tes, or	after hat heat and mage. OTHER erated fi	andlir
3 3 3	Storage & Handling: Special Precautions: Exposure Limits: ppm (mg/m³) Ventilation & Engineering Controls: Respiratory Protection:	Avoid breathing mists or spray. Avo of the reach of children. Do not elimmediately clean-up and decontant. Use and store in a cool, dry, well-sunlight. Keep away from incompate Empty containers may retain hazard. 8. EXPOSURE CONTRUCTORY CHEMICAL NAME(S) NA Use local or general exhaust ventile handling of this product. Ensure a wash station). In instances where vapors or sprays use only protection authorized by 25 CAS Standard Z94.4-93 and app Australia. Safety glasses with side shields must be supported to the control of the control o	id eye and skin contact. eat, drink or smoke when the any spills or residue ventilated location (e.g., ible substances (see Sedous product residues. ROLS & PERSO ACGIH TLV STEL ES-TW NA NA NF ation to effectively remoration to effective the effective to effective the effective to effective the effective to effective the effecti	Wear proten handling ues. , local extection 10). NAL P NOHSC A STEL NF OVE and protent ation equipmerated, and cable U.S. anadian P ling or using the same and single using the same and protent ation equipmerated.	ROTEC ES-PEAK NF event buildu pment is av d respirator State regula rovinces, E	TION PEL NA p of vapailable (y protections, o C mem uct. A p	OSHA STEL NA Ocean or n (e.g., sin tion is no r the Cal ber Stat	IDLH NA nist gen nik, safeteeded, nadian tes, or	after hat heat and mage. OTHER erated fi	andlir
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13.1

13.2

Waste Disposal:

Special Considerations:

NA

SAFETY DATA SHEET

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PBP-005 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision Date: 3/14/2017 SDS Revision: 2.0 9. PHYSICAL & CHEMICAL PROPERTIES Opaque, light brown liquid 9 1 Appearance: 9.2 Odor: Mild ammonia-like odor 9.3 Odor Threshold: NA 9.0-9.5 94 pH: 9.5 Melting Point/Freezing Point: NA Initial Boiling Point/Boiling 9.6 100 °C (212 °F) Range: 9.7 Flashpoint NA Upper/Lower Flammability 9.8 LEL: NA; UEL: NA Limits: Vapor Pressure: < 0.1 mm Hg 9.9 Vapor Density: > 1.0 (air = 1.0) 9.10 9.11 Relative Density: 1.01 Solubility Miscible 9.12 9.13 Partition Coefficient (log Pow) NA 9.14 Autoignition Temperature NA 9.15 Decomposition Temperature: NA 9.16 Viscosity: NA Evaporation Rate: < 1.0 (ethyl ether = 1.0) Other Information: 9.17 10. STABILITY & REACTIVITY 10.1 Stability: Stable under normal storage and use conditions. 10.2 Hazardous Decomposition Thermal decomposition may produce carbon, sulfur and nitrogen oxides, hydrocarbons and/or derivatives. Products: Hazardous Polymerization: Will not occur. 10.3 10.4 Conditions to Avoid: Avoid high temperatures, ignition sources and incompatible materials. 10.5 Incompatible Substances Strong reducing agents, acids, alkalis, oxidizing agents 11. TOXICOLOGICAL INFORMATION 11.1 Routes of Entry: YES 11.2 Toxicity Data: NA 11.3 Acute Toxicity: See Section 4.4 11.4 Chronic Toxicity: See Section 4.5 Suspected Carcinogen: 11.5 NA Reproductive Toxicity: 11.6 This product is not reported to cause reproductive toxicity in humans Mutagenicity: This product is not reported to produce mutagenic effects in humans. Embryotoxicity This product is not reported to produce embryotoxic effects in humans. Teratogenicity: This product is not reported to cause teratogenic effects in humans. Reproductive Toxicity: This product is not reported to cause reproductive effects in humans. 11.7 Irritancy of Product: See Section 4.2 11.8 Biological Exposure Indices: ΝE 11.9 Physician Recommendations: Treat symptomatically. 12. ECOLOGICAL INFORMATION 12.1 Environmental Stability: This product is expected to have a low potential to degrade and thus is expected to persist in the environment. Do not allow to enter into soil/subsoil. If product enters soil, it will be mobile and may contaminate groundwater Effects on Plants & Animals: No data available. 12.2 12.3 Effects on Aquatic Life: NA

13. DISPOSAL CONSIDERATIONS

disposal of hazardous waste must be provided by a licensed facility or waste hauler.

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



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		14. TRANSPORTATIO	N INFORMATION			
			, packing group) is shown for each mode of transportation. Additional			
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 I	NFORMATION			
15.1	SARA Reporting Requirements:	This product does not contain any substances su	ubject to SARA Title III, section 313 reporting requirements.			
15.2	SARA TPQ:	NA				
15.3	TSCA Inventory Status:	The components of this product are listed on the	TSCA Inventory.			
15.4	CERCLA Reportable Quantity:	NA				
15.5	Other Federal Requirements:	NA				
15.6	Other Canadian Regulations:	contains all of the information required by the C the DSL/NDSL. None of the components of the List. WHMIS Class D2B (Materials Causing Oth				
15.7	15.7 State Regulatory Information: None of the 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:	NA				
		16. OTHER INFO	DRMATION			
16.1	Other Information:		IN REACTION. Wear protective gloves/eye protection. If swallowed, ician. Avoid breathing mist/sprays. If skin irritation or rash occurs: Get H OF CHILDREN.			
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.				
16.3	occitat page of this duriety Buttu officet.					
16.4	Prepared for:	Precision Brand Products, Inc. 2250 Curtiss Street Downers Grove, IL 60515 USA Tel: +1 (630) 969-7200 Fax: +1 (630) 969-0310 http://www.precisionbrand.com	PRECISION BRAND.			
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			

http://www.shipmate.com



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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	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

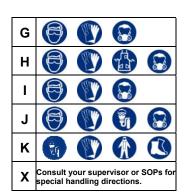
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:

Α			
В			
С		型	
D		型	
Ε			
F			





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	FLAMMABILITY		
1	Slight Hazard			
2	Moderate Hazard	REACTIVITY		
3	Severe Hazard			
4	Extreme Hazard			
ACD	Acidic			
ALK	Alkaline			
COR	Corrosive	/ \ \ \ \ \		
W	Use No Water	HEALTH		
ОХ	Oxidizer	SPECIAL		
TREFOIL	Radioactive	PRECAUTIONS		

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	Lowest dose (or concentration) to cause lethal or toxic effects			
TC, TC _o , LC _{lo} , & LC _o				
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 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	PA U.S. Environmental Protection Agency					
DSL	Canadian Domestic Substance List					
NDSL	L Canadian Non-Domestic Substance List					
PSL	PSL Canadian Priority Substances List					
TSCA	TSCA U.S. Toxic Substance Control Act					
EU	EU European Union (European Union Directive 67/548/EEC)					
WGK	WGK Wassergefährdungsklassen (German Water Hazard Class)					

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

0	®			Θ	(%)		
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:

	③		\Diamond			\Diamond		*
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment