


<p>SDS Revision Date: 3/16/2017</p>

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	TOOL-BLACK® LIQUID
1.2	Chemical Name:	Acid Mixture
1.3	Synonyms:	45109, 45110, 45112, 45117
1.4	Trade Names:	Tool-Black® Liquid
1.5	Product Use:	Solution for Blackening Iron and Steel
1.6	Distributor's Name:	Precision Brand Products, Inc.
1.7	Distributor's Address:	2250 Curtiss Street, Downers Grove IL 60515 USA
1.8	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:	<p>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).</p> <p>DANGER! TOXIC IF SWALLOWED. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.</p> <p><u>Classification:</u> Acute Toxicity 3; Skin Corrosion 1B; Acute Tox. 4; Chronic Aquatic Toxicity 1</p>	
2.2	Label Elements:	<p><u>Hazard Statements</u> (H): H301 – Toxic if swallowed. H314 – Causes severe skin burns and eye damage. H319 Causes serious eye irritation. H335 – May cause respiratory irritation. H410 – Very toxic to aquatic life with long lasting effects.</p> <p><u>Precautionary Statements</u> (P): P260 – Do not breathe the dust or mist. P264 – Wash thoroughly with soap and water 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/ eye and face protection. P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P332+P313 – If skin irritation occurs: Get medical advice/attention. P363 – Wash contaminated clothing before reuse. P304+P340 – IF INHALED: Remove person to fresh air at once and keep comfortable for breathing. P310 – Immediately call a POISON CENTER/doctor. P321 Specific treatments see this container label. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 – If eye irritation persists: Get medical advice/attention. P391 – Collect spillage. P403+P233 – Store in a well ventilated place. Keep container tightly closed. P405 – Store locked up. P501 - Dispose of contents/ container to an approved waste disposal plant.</p>	
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

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
WATER	7732-18-5	ZC0110000	231-791-2	60-100	NE	NE	NF	NF	NF	NE	NE	NE		
SELENIOUS ACID	7783-00-8	VS7175000	231-974-7	1-5	(0.2)	NA	(0.2)	NF	NF	(0.2)	NA	NA		
	Acute Tox.-Inh 3; Acute Tox.-Oral 3; STOT-RE 2; Acute Aq. Tox. 1; Chronic Aq. Tox. 1; H301, H331, H400, H410													
COPPER (II) NITRATE, TRIHYDRATE	10031-43-3	GI7875000	221-838-5	1-5	(1)	NA	NF	NF	NF	NA	NA	NA		
	Metal Corr. 1; Skin Corr. 1B; H290, H314													
NITRIC ACID	7697-37-2	QU5775000	231-714-2	1-5	2	4	2	NF	NF	2	NA	25		
	Ox. Liq. 3; Skin Corr. 1A; H272, H314													
HYDROCHLORIC ACID	7647-01-0	MW4025000	231-595-7	1-5	2	NA	NF	NF	5	5	NA	50		
	Skin Corr. 1B; STOT SE- 3; H314, H335													
PHOSPHORIC ACID	7664-38-2	TB6300000	231-633-2	1-5	(1)	(3)	NF	NF	NF	NA	NA	1000		
	Metal Corr. 1; Skin Corr. 1B; H290, H314													

4. FIRST AID MEASURES

4.1	First Aid:	<p><u>Ingestion:</u> Do not induce vomiting. Call +1 (855) 281-1742 for emergency medical advice. If vomiting occurs, keep victim's head lowered (forward) to keep vomit from entering the lungs. Call 911 for emergency medical transport if any symptoms noted.</p> <p><u>Eyes:</u> Remove and discard contact lenses if worn and flush eyes with large amounts of water for at least 20 minutes. Seek immediate medical attention when done rinsing eyes.</p> <p><u>Skin:</u> Remove contaminated clothing and wash exposed skin with large amounts of soap and water. Seek medical attention if any blistering, swelling or open sores develop.</p> <p><u>Inhalation:</u> Move victim to fresh air. Contact emergency medical services (911) if any difficulty in breathing occurs or if victim loses consciousness.</p>																				
4.2	Effects of Exposure:	<p><u>Eyes:</u> Severe or permanent eye damage.</p> <p><u>Skin:</u> Burns upon direct contact.</p> <p><u>Ingestion:</u> Severe burns of mouth, throat, stomach.</p> <p><u>Inhalation:</u> Severe irritation or burns in respiratory tract and mucous membranes. Possible lung damage.</p>																				
4.3	Symptoms of Overexposure:	<p><u>Eyes:</u> Redness, burning, irritation, and swelling around eyes</p> <p><u>Skin:</u> Redness, burning, itching, rash, blistering of skin.</p> <p><u>Ingestion:</u> Nausea, vomiting, severe abdominal pain.</p> <p><u>Inhalation:</u> Coughing, wheezing, swelling of throat, irritation in mucous membranes, difficulty breathing.</p>																				
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.																				
4.7	Medical Conditions Aggravated by Exposure:	<div><div>Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin, and respiratory system) or impaired kidney function may be more susceptible to the effects of this substance. 1*</div><table><tr><td colspan="3">HEALTH</td><td>3</td></tr><tr><td colspan="3">FLAMMABILITY</td><td>0</td></tr><tr><td colspan="3">PHYSICAL HAZARDS</td><td>2</td></tr><tr><td colspan="3">PROTECTIVE EQUIPMENT</td><td>H</td></tr><tr><td>EYES</td><td>SKIN</td><td>LUNGS</td><td></td></tr></table></div>	HEALTH			3	FLAMMABILITY			0	PHYSICAL HAZARDS			2	PROTECTIVE EQUIPMENT			H	EYES	SKIN	LUNGS	
HEALTH			3																			
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PHYSICAL HAZARDS			2																			
PROTECTIVE EQUIPMENT			H																			
EYES	SKIN	LUNGS																				
4.8	Notes to Physician:	This product contains Selenious Acid 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 intensify fire; oxidizer. Keep/Store away from clothing/ combustible materials.	
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:	<p>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.</p> <p><u>Small Spills:</u> 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.</p> <p><u>Large Spills:</u> 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.</p>
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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. Keep/Store away from clothing/ combustible materials.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

.8.1	Exposure Limits: ppm (mg/m ³)	CHEMICAL NAME(S)	ACGIH		NOHSC			OSHA			OTHER
			TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
		SELENIOS ACID	(0.2)	NA	(0.2)	NF	NF	(0.2)	NA	NA	
		COPPER (II) NITRATE, RIHYDRATE	(1)	NA	NF	NF	NF	NA	NA	NA	
		NITRIC ACID	2	4	2	NF	NF	2	NA	25	
		HYDROCHLORIC ACID	2	NA	NF	NF	5	5	NA	50	
		PHOSPHORIC ACID	(1)	(3)	NF	NF	NF	NA	NA	1000	
8.2	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).									
8.3	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.									
8.4	Eye Protection:	Safety glasses with side shields must be used when handling or using this product. A protective face shield is also recommended.									
8.5	Hand Protection:	Wear protective, chemical-resistant gloves (e.g., neoprene) when using or handling this product.									
8.6	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 liquid
9.2	Odor:	Odorless
9.3	Odor Threshold:	0.29 to 0.98 ppm (Nitric Acid)
9.4	pH:	0.85
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	> 100 °C (> 212 °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:	1.055
9.12	Solubility:	Complete (water)
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:	Phosphoric Acid: LD ₅₀ (oral, rat) = 1,530 mg/kg; LD ₅₀ (oral, rat) = 4,640 mg/kg; Hydrochloric Acid: LD ₅₀ (oral, rat) = 900 mg/kg; Copper Nitrate Trihydrate: LD ₅₀ (oral, rat) = 794 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 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.		



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11. TOXICOLOGICAL INFORMATION – cont'd

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:	<u>Hydrochloric Acid</u> : LC ₅₀ (gambusia affinis-mosquito fish, 96h) - 282 mg/L
12.2	Effects on Plants & Animals:	No data available.
12.3	Effects on Aquatic Life:	Very toxic to aquatic life with long lasting effects. <u>Phosphoric Acid</u> : EC ₅₀ (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.
13.2	Special Considerations:	U.S. EPA Hazardous Waste – Characteristic - Corrosive (D002), Characteristic - Toxic (D010)

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):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L)
14.2	IATA (AIR):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 0.1 L)
14.3	IMDG (OCN):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L)
14.4	TDGR (Canadian GND):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L)
14.5	ADR/RID (EU):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L)
14.6	SCT (MEXICO):	UN3264, LIQUIDOS, CORROSIVOS, ACIDO, INORGANICO, N.E.P. (ACIDO SELENIO, ACIDO FOSFORICO), 8, II, (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOS ACID, PHOSPHORIC ACID), 8, II, (LTD QTY, IP VOL ≤ 1.0 L)



15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product contains <u>Nitric Acid</u> , <u>Hydrochloric Acid</u> , <u>Selenious Acid</u> , <u>Cupric Nitrate</u> , and <u>Phosphoric Acid</u> , substances subject to SARA Title III, section 313 reporting requirements.
15.2	SARA TPQ:	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:	<u>Selenious Acid</u> : 10 lbs (4.54 kg); <u>Nitric Acid</u> : 1,000 lbs (454 kg); <u>Phosphoric Acid</u> : 5,000 lbs (2,270 kg); <u>Hydrochloric Acid</u> : 5,000 lbs (2,270 kg); <u>Cupric Nitrate</u> : 100 lbs (45.4 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/NDL. 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).
15.7	State Regulatory Information:	<u>Selenious Acid</u> 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) <u>Nitric Acid</u> is found on the following state criteria lists: FL, MA, MN, New Jersey Right-to-Know List (NJ), PA, and Washington Permissible Exposures List (WA). <u>Hydrochloric Acid</u> is found on the following state criteria lists: FL, MA, MN, NJ, PA, WA <u>Phosphoric Acid</u> is found on the following state criteria lists: FL, MA, MN, 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





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16. OTHER INFORMATION

16.1	Other Information:	DANGER! TOXIC IF SWALLOWED. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS. Causes severe burns to eyes and skin. Avoid excessive heat. Do not breathe dust/fumes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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 & 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	 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 <i>Dangerous Goods Training & Consulting</i>



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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	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.
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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.

Safety Glasses	Splash Goggles	Face Shield & Protective Eyewear	Gloves
Boots	Protective Apron	Protective Clothing & Full Suit	Dust Respirator
Full Face Respirator	Dust & Vapor Half-Mask Respirator	Full Face Respirator	Airline Hood/Mask or SCBA

OTHER STANDARD ABBREVIATIONS:

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

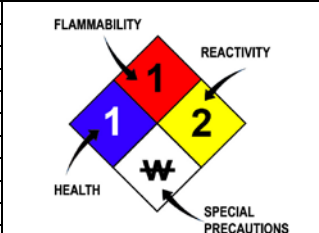
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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 ₁₀	Lowest dose to cause a symptom
TCLO	Lowest concentration to cause a symptom
TD ₁₀ , LD ₁₀ , & LD ₀ or TC, TC ₀ , LC ₁₀ , & LC ₀	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



MATERIAL SAFETY DATA SHEET

DATE REVISED: 6/1/10
REVISION MSDS NO. 880246-5

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **CLEANER DEGREASER** UPC Nos. **45104, 45105**

MANUFACTURED BY: PRECISION BRAND PRODUCTS, INC.

2250 Curtiss Street

Downers Grove IL 60515 USA

Product Information Telephone Number: (630) 969-7200 (8:00-4:00pm CST)

Fax Number: (630) 969-0310

24 HOUR TRANSPORTATION EMERGENCY NUMBER: CHEMTREC 800-424-9300 U.S. & CANADA

703-527-3887 INTERNATIONAL (Collect)

24 HOUR POISON CONTROL EMERGENCY NUMBER: 866-291-7152 U.S. & CANADA

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: **WARNING! Flammable liquid and vapor.** Keep away from sparks and open flames. Cans involved in fire may explode. Harmful if inhaled or swallowed. Irritating to eyes, skin, upper respiratory tract.

APPEARANCE/ODOR: Pink liquid with alcohol odor

EYE CONTACT: Irritation upon direct contact. Symptoms may include stinging, tearing, redness and swelling.

SKIN CONTACT: Mildly irritating. Prolonged or repeated skin contact can result in de-fatting, drying of the skin with symptoms of redness, stinging.

INGESTION: Irritation to the gastrointestinal tract. This material can enter the lungs during swallowing or vomiting and cause lung damage.

INHALATION: Inhalation may cause irritation to the respiratory tract (nose, throat and lungs). Inhalation of high vapor concentrations may cause central nervous system effects, and symptoms such as headache, dizziness, disorientation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Description	CAS #	Weight %	OSHA PEL* TWA	OSHA PEL STEL/C	ACGIH TLV TWA	ACGIH TLV STEL/C
Isopropyl Alcohol	67-63-0	< 15	400 ppm	NE	200 ppm	400 ppm
Sodium Tetaborate (Borax)	1303-96-4	< 2	NE	NE	2 mg/m ^{3(I)}	6 mg/m ^{3-STEEL}
Disodium Pyrophosphate	7758-16-9	< 2	NE	NE	NE	NE
Biodegradable Surfactant Blend	-	< 10	NE	NE	NE	NE
Water	7732-18-5	>71	NE	NE	NE	NE

TWA – Time-weighted Average **STEL** – Short-term exposure limit **C** – Ceiling **I** – inhalable fraction (skin) – skin designation means that harmful amounts may be absorbed through the skin

* Certain States enforce PELs that were in place in 1989, but were later removed by the U.S. Supreme Court. Check with your State OSHA to determine which PEL is enforced in your State.

NE = not established **NA** = not applicable **NDA** = no data available

4. FIRST AID MEASURES

EYE CONTACT: Flush immediately with clean water. Continue for at least 15 minutes. Seek medical attention if necessary.

SKIN CONTACT: Remove contaminated clothing to avoid prolonged contact. Wash affected areas with water. Seek medical attention if irritation develops.

INGESTION: Call Poison Control Center immediately. DO NOT induce vomiting. If victim is conscious, give 1 – 2 glasses of water.

INHALATION: Remove from exposure. Seek medical attention if necessary if breathing is difficult. Seek medical attention if symptoms of overexposure develop or persist.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: 85°F

METHOD USED: Closed Cup

FLAMMABLE LIMITS LFL: NDA

UFL: NDA

EXTINGUISHING MEDIA: Water, carbon dioxide.

FIRE & EXPLOSION HAZARDS: Vapors may form an explosive mixture in air. Closed containers may rupture when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear approved SCBA and full turn-out gear.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear recommended protective equipment. Remove all sources of ignition. Ventilate area. Absorb spill with an absorbent material such as sawdust, vermiculite or sand and place material into a closed container. Use only non-sparking tools for cleanup. Prevent material from entering water systems or sewers.

Review current local, state and federal laws, codes, statutes, and regulations to determine appropriate agencies to be notified, and the conditions under which they are to be notified. (See Section 13 for waste disposal comments).

7. HANDLING AND STORAGE

HANDLING: Avoid breathing vapors. Avoid eye and skin contact. Prohibit smoking in the area and exclude sources of spark or open flame. Avoid static discharge. Wear protective equipment when handling product. Empty containers may still have product residue and flammable vapors. Keep container tightly closed. Keep out of the reach of children.

STORAGE: Do not store where temperature may exceed 120°F. Store liquid in closed containers.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY PROTECTION: Use a NIOSH approved respirator (Full or half-face organic vapor cartridge type) if any of the occupational exposure limits in Section 3 may be exceeded.

EYE PROTECTION: safety glasses with side shields, or goggles

PROTECTIVE GLOVES / BODY PROTECTION: not required for incidental contact

VENTILATION: Use general/dilution or local exhaust ventilation as needed to ensure that occupational exposure limits are not exceeded. Do not use in enclosed spaces.

OTHER PROTECTIVE EQUIPMENT: Eyewash

NOTE: All PPE should be selected on the basis of an exposure assessment performed by a competent person.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 176 °F	SPECIFIC GRAVITY: (Water = 1): 0.991
VAPOR PRESSURE: 23 mm Hg (Calculated)	VOLATILE BY VOLUME: < 20% (not including water)
VAPOR DENSITY: (Air = 1): > 1	EVAPORATION RATE: (Ethyl Ether = 1): < 1
SOLUBILITY IN WATER: Miscible	pH: 9.76
APPEARANCE: Pink liquid	ODOR: alcohol odor

10. STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: Avoid high temperatures and ignition sources.

INCOMPATIBILITY (materials to avoid): Strong oxidizers, acids

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce carbon monoxide, carbon dioxide, nitrogen and sulfur oxides

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

There is no product based toxicological information for this product. Toxicology information is provided based on individual ingredients.

LD₅₀, oral, rat: 5045 mg/kg (isopropanol) Chronic animal feeding studies have suggested sodium tetraborate exposure results in reproductive disorders and teratogenic effects. Human studies have shown no adverse reproductive effects as have been reported from oral ingestion studies in animals.

TARGET ORGANS: Eyes, skin, lungs (irritant), liver, CNS.

Medical conditions that may be aggravated by exposure: Pre-existing skin, eye, respiratory, CNS, liver disease.

Carcinogenicity: IARC: 3* (isopropanol) NTP: None OSHA: None

* unclassifiable as to carcinogenicity in humans

12. ECOLOGICAL INFORMATION

ECOTOXICITY: NDA

ENVIRONMENTAL FATE: NDA

13. DISPOSAL CONSIDERATIONS

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 dealt with by a licensed facility or waste hauler.

14. TRANSPORT INFORMATION

D.O.T. HAZARDOUS MATERIALS DESCRIPTION AND PROPER SHIPPING NAME:

Flammable Liquid, N.O.S. (Isopropyl Alcohol), 3 / UN1993 / P.G. III. Exceptions: 49CFR 173.150

15. REGULATORY INFORMATION

TSCA (TOXIC SUBSTANCES CONTROL ACT): the materials in this product are listed on the TSCA Inventory.

CERCLA (Comprehensive Response compensation and Liability Act, 40 CFR 117, 302: Reportable Quantities: NDA

SARA TITLE III (Superfund Amendments and Authorization Act):

Section 311/312:

Immediate Health Effects: Yes

Delayed Health Effects: Yes

Fire Hazard: Yes

Sudden Release of Pressure Hazard: No

Reactivity Hazard: No

Section 313 Reportable Ingredients: Isopropanol

STATE "RIGHT-TO-KNOW": This product may contain components cited on certain state lists. Consult with your individual State regarding this product's components.

16. OTHER INFORMATION

National Fire Protection Association (NFPA): Health: 2 Flammability:3 Reactivity:0

The data here is for hazard communication to our employees, our customers and their employees, and authorized regulatory agencies. For the intended purpose, this MSDS (Material Safety data Sheet) may be duplicated or the data transcribed to an alternative form.

NOTE: The information contained herein is provided in good faith and is believed to be correct as of the date hereof.

However, PRECISION BRAND PRODUCTS, INC. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular period. Accordingly, PRECISION BRAND PRODUCTS, INC. will not be responsible for damages of any kind resulting from the use of or reliance upon such information. NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HEREUNDER TO WHICH THE INFORMATION REFERS. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.



SAFETY DATA SHEET

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PBP-004

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards


SDS Revision: 1.2

SDS Revision Date: 4/7/2015

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	PREVENT® NON-VOC FORMULA
1.2	Chemical Name:	Petroleum Distillate
1.3	Synonyms:	45119, 45116
1.4	Trade Names:	Prevent® Non-VOC Formula
1.5	Product Use:	Lubricate, Penetrate, Displace Water, Protect Surfaces from Corrosion
1.6	Distributor's Name:	Precision Brand Products, Inc.
1.7	Distributor's Address:	2250 Curtiss Street, Downers Grove IL 60515 USA
1.8	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:	<p>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).</p> <p>DANGER! MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAY. MAY CAUSE AN ALLERGIC SKIN REACTION.</p> <p><u>Classification:</u> Asp. Tox. 1; Skin Sens. 1</p> <p><u>Hazard Statements</u> (H): H304 – May be fatal if swallowed and enters airways. H317 – May cause an allergic skin reaction.</p> <p><u>Precautionary Statements</u> (P): P280 – Wear protective gloves/eye protection. P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P301 – Do NOT induce vomiting. P261 Avoid breathing mist/sprays. P272 – Contaminated work clothing should not be allowed out of the workplace. 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. P405 – Store locked up. P501 - Dispose of contents/container to licensed treatment, storage and disposal facility (TSDF).</p>	
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3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³)									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
					TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	TLV	STEL	IDLH		
WHITE MINERAL OIL	8042-47-5	PY8047000	232-455-8	60-100	(5)	NA	(5)	NA	NA	(5)	(10) *	(2500) *	NIOSH	
Asp. Tox. 1; H304, H226														
SEVERELY HYDROTREATED NAPHTHENIC PETROLEUM OIL *	64742-52-5	NA	265-155-0	10-30	(5)	(10)	(5)	NA	NA	(5)	NA	NA	OIL MIST	
* contains less than 3% Dimethyl Sulfoxide														
BARIUM ALKYLNAPHTHALENE SULFATE	25619-56-1	NA	247-132-7	7-13	NA	NA	NF	NF	NF	NA	NA	NA		
Acute Tox. 4; Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; H302, H315, H317, H319, H332														

4. FIRST AID MEASURES

4.1	First Aid:	<p><u>Ingestion:</u> DO NOT INDUCE VOMITING. Contact ChemTrec +1 (800) 424-9300 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.</p> <p><u>Eyes:</u> 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.</p> <p><u>Skin:</u> 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.</p> <p><u>Inhalation:</u> Remove victim to fresh air at once. Under extreme conditions, if breathing stops, perform artificial respiration. Seek immediate medical attention.</p>
4.2	Effects of Exposure:	<p><u>Eyes:</u> Irritation upon direct contact.</p> <p><u>Skin:</u> Irritation and possible dermatitis.</p> <p><u>Ingestion:</u> Irritation to the gastrointestinal tract. Aspiration of mineral oil into the lungs can cause chemical pneumonia.</p> <p><u>Inhalation:</u> Inhalation of high vapor concentrations may cause central nervous system effects, and symptoms such as headache, dizziness, and disorientation.</p>
4.3	Symptoms of Overexposure:	<p><u>Eyes:</u> Redness, burning, irritation, and swelling around eyes.</p> <p><u>Skin:</u> Redness, burning, itching, rash, and scaling of the skin (dermatitis).</p> <p><u>Ingestion:</u> Nausea, vomiting, severe abdominal pain.</p> <p><u>Inhalation:</u> Coughing, wheezing, swelling of throat, irritation in mucous membranes, difficulty breathing.</p>
4.4	Acute Health Effects:	May be fatal if swallowed and enters airways. May cause an allergic skin reaction. May be harmful if swallowed. Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, disorientation.



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SDS Revision: 1.2

SDS Revision Date: 4/7/2015

4. FIRST AID MEASURES – cont'd

4.5	Chronic Health Effects:	Prolonged or repeated skin exposure may cause dermatitis.						
4.6	Target Organs:	Eyes, Skin, Respiratory System, Lungs.						
4.7	Medical Conditions Aggravated by Exposure:	Persons with pre-existing central nervous system (CNS) disease, neurological conditions, skin disorders, chronic respiratory diseases, or impaired liver or kidney function should avoid exposure.	HEALTH				1	
			FLAMMABILITY				1	
			PHYSICAL HAZARDS				0	
			PROTECTIVE EQUIPMENT				B	
			EYES	SKIN				

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	High heat will cause product to boil, evolving vapor that could cause explosive rupture of closed containers. Avoid all ignition sources such as sparks, heat and open flames. Product or residue can ignite explosively.	
5.2	Extinguishing Methods:	Carbon Dioxide, Foam, Low Velocity Water Fog, Halon (if permitted), Dry Chemical Extinguisher.	
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. Treat as hot oil. Hazardous decomposition products may be released. Thermal degradation may produce oxides of carbon, 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. <u>Small Spills:</u> 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. <u>Large Spills:</u> 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. Use ONLY non-sparking tools. 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. 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. 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 closed containers. 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	Exposure Limits: ppm (mg/m ³)	CHEMICAL NAME(S)	ACGIH		NOHSC			OSHA			OTHER
			TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
			NA	NA	NF	NF	NF	NA	NA	NA	
8.2	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).									
8.1	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).									
8.3	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.									
8.4	Eye Protection:	Safety glasses with side shields must be used when handling or using this product. A protective face shield is also recommended.									





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8. EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd

8.5	Hand Protection:	Wear protective, chemical-resistant gloves (e.g., neoprene) when using or handling this product.	
8.6	Body Protection:	Not required under normal conditions of use. A chemical resistant apron and/or protective clothing are recommended when handling or using large quantities (e.g., > 5 gallons (18.9 L)) of this product.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Opaque, light brown liquid
9.2	Odor:	Kerosene odor
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	> 110 °C (> 230 °F)
9.7	Flashpoint:	120 °C (248 °F), open cup
9.8	Upper/Lower Flammability Limits:	LEL: NA; UEL: NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	> 1.0 (air = 1.0)
9.11	Relative Density:	0.8057
9.12	Solubility:	Immiscible (water)
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); VOC: 0.2 lbs/gallon

10. STABILITY & REACTIVITY

10.1	Stability:	Stable under normal storage and use conditions.
10.2	Hazardous Decomposition Products:	Thermal decomposition may produce carbon and nitrogen oxides, hydrocarbons and/or derivatives.
10.3	Hazardous Polymerization:	Will not occur.
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:	Inhalation: YES	Absorption: YES	Ingestion: YES
11.2	Toxicity Data:	Severely Hydrotreated Naphthenic Petroleum Oil (Mineral Oil): LD50 (oral, rat) > 5,000 mg/kg		
11.3	Acute Toxicity:	See Section 2.4		
11.4	Chronic Toxicity:	See Section 2.5		
11.5	Suspected Carcinogen:	IARC 3 (not classifiable as to carcinogenicity in humans (for mineral oils, highly refined))		
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 produce 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:	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.
12.2	Effects on Plants & Animals:	No data available.
12.3	Effects on Aquatic Life:	No data available.

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:	If incinerated, the resulting ash will contain extractable barium. A waste with extractable barium of 100 ppm or greater is assigned EPA Hazardous Waste Number D005 (Toxicity Characteristic – Barium).

14. TRANSPORTATION INFORMATION

The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

14.1	49 CFR (GND):	NOT REGULATED
14.2	IATA (AIR):	NOT REGULATED
14.3	IMDG (OCN):	NOT REGULATED
14.4	TDGR (Canadian GND):	NOT REGULATED
14.5	ADR/RID (EU):	NOT REGULATED
14.6	SCT (MEXICO):	NOT REGULATED
14.7	ADGR (AUS):	NOT REGULATED

15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product does not contain any substances subject to SARA Title III, section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	NA
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
15.4	CERCLA Reportable Quantity (RQ):	NA
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/NDL. None of the components of this product are listed on the Priorities Substances List. WHMIS Class D2B (Materials Causing Other Toxic Effects). 
15.7	State Regulatory Information:	Severely Hydrotreated Naphthenic Petroleum Oil (Mineral Oil) is found on the following state criteria lists: New Jersey Right-to-Know List (NJ), and Pennsylvania Right-to-Know List (PA). No other ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC. Severely Hydrotreated Naphthenic Petroleum Oil (Mineral Oil): Harmful (Xn). Risk Phrases (R): R36/37/38-65 – Irritating to eyes, respiratory system and skin. Harmful – may cause lung damage if swallowed. Safety Phrases (S): S(2)-23-24-62 - Keep out of the reach of children. Do not breathe fumes/mists/vapors/spray. Avoid contact with skin. If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label where possible. 



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SDS Revision Date: 4/7/2015

16. OTHER INFORMATION

16.1	Other Information:	DANGER! MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAY. MAY CAUSE AN ALLERGIC SKIN REACTION. May cause an allergic skin reaction. Wear protective gloves/eye protection. If swallowed, immediately call a Poison Center or doctor/physician. Avoid breathing mist/sprays. If skin irritation or rash occurs: Get medical advice/attention. 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	 PRECISION BRAND
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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards

SDS Revision: 1.2

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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
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EXPOSURE LIMITS IN AIR:

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

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.
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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.

Safety Glasses	Splash Goggles	Face Shield & Protective Eyewear	Gloves
Boots	Synthetic Apron	Protective Clothing & Full Suit	Dust Respirator
Full Face Respirator	Dust & Vapor Half-Mask Respirator	Full Face Respirator	Airline Hood/Mask or SCBA

OTHER STANDARD ABBREVIATIONS:

ML	Maximum Limit
NA	Not Available
ND	Not Determined
NE	Not Established
NF	Not Found
NR	No Results
SCBA	Self-Contained Breathing Apparatus

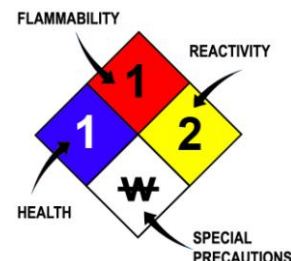
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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 ₁₀	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD ₁₀ , LD ₁₀ , & LD ₅₀ or TC, TC ₁₀ , LC ₁₀ , & LC ₅₀	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	Environment