15.6.1. This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

15.7. **California Proposition 65:**

15.7.1. The product does not contain chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

15.8. **New Jersey Right-to-Know Label**

15.8.1. Petroleum Oil

16.OTHER INFORMATION

16.1.

HAZARD RANKINGS			
HMIS		NFPA	
HEALTH HAZARD	2	HEALTH HAZARD	2
FIRE HAZARD	1	FIRE HAZARD	1
PHYSICAL HAZARD	0	INSTABILITY/REACTIVITY	0
Personal Protection	B		

Components Hazard Statements	
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes Serious Eye Irritation
H332	Harmful if inhaled
H413	May cause long lasting harmful effects to aquatic life.

16.2. **Date of preparation:** 5/7/2015

16.3. **MANUFACTURER DISCLAIMER:**

16.3.1. The data presented herein is based upon tests and information, which we believe to be reliable. However, users should make their own investigations to determine the suitability of the information for their particular purpose.

SAFETY DATA SHEET – ATP AUTOMATIC TRANSMISSION FLUID SYNTHETIC M FIVE ALTERNATE #AT-206

1. IDENTIFICATION

1.1. PRODUCT IDENTIFIER USED ON LABEL:

Item	LABEL DESCRIPTION	BRAND
AT-206	ATP AUTOMATIC TRANSMISSION FLUID SYNTHETIC M FIVE ALTERNATE	ATP

1.2. **OTHER MEANS OF IDENTIFICATION:**

1.2.1. AUTOMATIC TRANSMISSION FLUID

1.3. **RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE;**

1.3.1. PETROLEUM LUBRICATING OIL

1.3.2. TRANSMISSION FLUID

1.4. **NAME, ADDRESS, AND TELEPHONE NUMBER OF THE CHEMICAL MANUFACTURE R, IMPORTER, OR OTHER RESPONSIBLE PARTY:**

1.4.1.

Life Automotive Products, Inc.

500 Industrial Park Drive
Selmer, TN 38375-3276
United States of America

Product Information

MSDS Requests: (800) 264-6457 or +17316454972
Technical Information: (800) 264-6457 or +17316454972
General Information: vswedley@spectrumcorporation.com

1.5. **EMERGENCY PHONE NUMBER:**

1.5.1.

Emergency Response
North America: CHEMTREC (800) 424-9300 after 5:00pm CST Or +17035273887
Health Emergency
USA: (800) 264-6457 or +17316454972

2. HAZARD(S) IDENTIFICATION

2.1. **CLASSIFICATION OF THE CHEMICAL IN ACCORDANCE WITH PARAGRAPH (d) of §1910.1200:**
- 2.1.1. Acute Inhalation Category 4
- 2.1.2. Skin Irritant Category 2
- 2.1.3. Eye Irritant Category 2

2.2. **Signal Word:**
- 2.2.1. Warning

2.3. **Symbol:**

2.4. **Hazard Statements:**
- 2.4.1. Harmful if Inhaled
- 2.4.2. Causes Skin Irritation
- 2.4.3. Causes Serious Eye Irritation

2.5. **Precautionary Statements:**
- 2.5.1. Prevention:
  - 2.5.1.1. Avoid breathing dust/fume/gas/mist/vapors/spray.
  - 2.5.1.2. Use only outdoors or in a well-ventilated area.
  - 2.5.1.3. Wash thoroughly after handling.
  - 2.5.1.4. Wear protective gloves.
  - 2.5.1.5. Wear eye protection/face protection.
- 2.5.2. Response:
  - 2.5.2.1. If inhaled: Remove person to fresh air and keep comfortable for breathing.
  - 2.5.2.2. If on skin wash with plenty of water.
  - 2.5.2.3. If skin irritation or rash occurs: Get medical advice/attention.
  - 2.5.2.4. Take off contaminated clothing and wash it before reuse.
  - 2.5.2.5. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - 2.5.2.6. Immediately call a poison center/doctor.

3. Composition/ information on ingredients

3.1. **The chemical name and concentration (exact percentage) or concentration ranges of all ingredients which are classified as health hazards in accordance with paragraph (d) of §1910.1200**
- 3.1.1.

COMPONENTS	CAS Number	EU Number	Concentration (%)	Hazard Statements (see Section 16)
Polyalphaolefin	68037-01-4	500-183-1	25-50	H332, H319
Noneylated diphenylamine derivatives	36878-20-3	253-249-4	20-40	H315, H319, H413
Branched alkanes	68649-11-6	500-228-5	<10	H304, H332
Hydrotreated distillate, heavy paraffinic	64742-54-7	265-157-1	<2	H304, H315, H319, H413

4. FIRST AID MEASURES

4.1.

Skin:	Wash skin with soap and warm water. Wash clothing before re-use. If skin irritation or rash occurs: Get medical advice/attention.
Eye:	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
Inhalation:	Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell
Ingestion:	If ingested, do not induce vomiting. Call a physician.

5. FIRE FIGHTING MEASURES

5.1. **Flash Point:** 345°F (173.89°C)

5.2. **Protective Equipment/Fire Fighting Instructions:**

5.2.1. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

5.3. **Extinguishing Media:**

5.3.1. Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.

5.4. **Special Firefighting Procedures:**

5.4.1. Cool exposed containers with water spray.

5.5. **Unusual Fire and Explosion Hazards:**

5.5.1. Pressure increase in over heated closed containers. Cool containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1. **Spill Procedures:**

6.1.1. Remove ignition sources. Recover Liquid. Add absorbent to spill area. Ventilate confined spaces. Advise authorities if product enters sewers, etc.

6.2. **Waste Disposal:**

6.2.1. Assure conformity with applicable disposal regulations. Dispose of absorbed material at approved waste site

6.3. **Precautionary Measures:**

6.3.1. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Wash thoroughly after handling.

6.3.2. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

7. HANDLING AND STORAGE

7.1. **Handling**

7.1.1. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum re-conditioner or disposed of properly.

7.2. **Storage**

7.2.1. Keep container closed when not in use. Do not store with strong oxidizing agents. Do not store at elevated temperatures.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1. **Component Exposure Limits:**

8.1.1. **AUTOMATIC TRANSMISSION FLUID 5mg/m3 (oil mist) ACGIH TLV OSHA PEL**

COMPONENTS	ACGIH TLV	OSHA PEL
Polyalphaolefin	5mg/m³ (oil mist) TWA	5mg/m³ (oil mist) TWA
Noneylated diphenylamine derivatives	5mg/m³ (oil mist) TWA	5mg/m³ (oil mist) TWA
Branched alkanes	5mg/m³ (oil mist) TWA	5mg/m³ (oil mist) TWA
Hydrotreated distillate, heavy paraffinic	5mg/m³ (oil mist) TWA	5mg/m³ (oil mist) TWA

8.2. **Engineering Controls:**

8.2.1. Ventilate as needed to comply with exposure limit

8.3. **Eye Protection:**

8.3.1. Use goggles/face shield to avoid eye contact

8.4. **Glove Protection:**

8.4.1. Use impervious gloves to avoid repeated/prolonged skin contact.

8.5. **Work/Hygienic Practices:**

8.5.1. If clothing becomes contaminated, change to fresh clean clothing. Do not wear until thoroughly laundered.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Appearance/Odor:**	Red colored liquid with mild hydrocarbon odor.	9.2. **Odor Threshold:**	No data available
9.3. **pH:**	No data available	9.4. **Boiling Point:**	Wide range
9.5. **Melting Point:**	No data available	9.6. Solubility (H_2O):	Negligible
9.7. **Specific Gravity:**	0.8571 @ 15.6°C	9.8. **Density:**	7.153 lbs/gal
9.9. Octanol H_2O Coeff.:	No data available	9.10. **Evaporation Rate (BUAC=1):**	<1
9.11. **Molecular Weight:**	No data available	9.12. **Decompostion Temp:**	No data available
9.13. **Auto Ignition:**	No data available	9.14. **Lower Flammability Limit:**	No data available
9.15. **Flash Point:**	345°F (173.89°C)	9.16. **Upper Flammability Limit:**	No data available
9.17. **Vapor Density (Air=1):**	>1	9.18. **Vapor Pressure:**	<1mmHg @ 20°C
9.19. **VOC:**	Nill	9.20. **Flammability Class:**	Not classified
9.21. **Viscosity @ 40°C**	25.76cSt (25.76 mm^2/s)	9.22. **Viscosity @ 100°C**	5.27cSt (5.27 mm^2/s)

10.STABILITY AND REACTIVITY

10.1. **Reactivity:**

10.1.1. Material does not pose a significant reactivity hazard.

10.2. **Chemical Stability:**

10.2.1. Stable

10.3. **Incompatibility/Conditions to avoid:**

10.3.1. Avoid strong oxidants

10.4. **Possibility of Hazardous Reactions:**
10.4.1. Will not undergo hazardous polymerization.
10.5. **Hazardous Decomposition Products:**
10.5.1. Partial burning produces fumes, smoke and carbon monoxide

11. TOXICOLOGY INFORMATION

11.1. **Likely Routes of Exposure:**
11.1.1. Ingestion, Inhalation, Eye contact, Skin contact.
11.2. **Acute Effects:**
11.2.1. Inhalation: Harmful if inhaled. May cause respiratory irritation.
11.2.2. Eye Contact: Causes serious eye irritation.
11.2.3. Skin Contact: Causes skin irritation.
11.2.4. Ingestion: Expected to be low ingestion hazard.
11.3. **Component Data/ Analysis**

COMPONENTS	Oral (LD50) (Rat)	Inhalation (LC50) (Rat)	Dermal (LD50) (Rabbit)
Petroleum distillates, hydrotreated heavy paraffinic	>5000 mg/kg	2.18 mg/l (4hr)	>2000 mg/kg
Hydrotreated distillate, heavy paraffinic	>5000 mg/kg	2.18 mg/l (4hr)	>2000 mg/kg
Noneylated diphenylamine derivatives	>5000 mg/kg		

11.4. **Sensitization:**
11.4.1. None known.
11.5. **Carcinogenicity:**
11.5.1. None greater than 0.1%.
11.6. **Mutagenicity:**
11.6.1. None known.
11.7. **Reproductive Toxicity:**
11.7.1. None known.
11.8. **Teratogenicity:**
11.8.1. None known.

12.ECOLOGICAL INFORMATION

12.1. **Ecotoxicity**
12.1.1. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport

into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

12.2. **Environmental Fate**

12.2.1. Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.

13. DISPOSAL CONSIDERATIONS

13.1. **Waste Disposal**:

13.1.1. Assure conformity with applicable disposal regulations. Dispose of absorbed material at approved waste site.

14.TRANSPORTATION INFORMATION

The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.

14.1. **ROAD AND RAIL**

14.1.1. DOT: NOT REGULATED

14.2. **VESSEL**

14.2.1. IMDG: NOT REGULATED

14.3. **AIR**

14.3.1. IATA: NOT REGULATED

15.REGULATORY INFORMATION

15.1. **TSCA Inventory**

15.1.1. This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

15.2. **SARA 302/304 Emergency Planning and Notification**

15.2.1. No components were identified.

15.3. **SARA 311/312 Hazard Identification**

15.3.1. Acute (Immediate) Health Hazard

15.4. **SARA 313 Toxic Chemical Notification and Release Reporting**

15.4.1. : No components were identified.

15.5. **CERCLA**

15.5.1. No components were identified.

15.6. **Clean Water Act (CWA)**

15.6.1. This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

15.7. **California Proposition 65:**

15.7.1. The product does not contain chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

15.8. **New Jersey Right-to-Know Label**

15.8.1. Petroleum Oil

16.OTHER INFORMATION

16.1.

HAZARD RANKINGS			
HMIS		NFPA	
HEALTH HAZARD	1	HEALTH HAZARD	1
FIRE HAZARD	1	FIRE HAZARD	1
PHYSICAL HAZARD	0	INSTABILITY/REACTIVITY	0
Personal Protection	B		

Components Hazard Statements	
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes Serious Eye Irritation
H332	Harmful if inhaled
H413	May cause long lasting harmful effects to aquatic life.

16.2. **Date of preparation:** 5/6/2015

16.3. **MANUFACTURER DISCLAIMER:**

16.3.1. The data presented herein is based upon tests and information, which we believe to be reliable. However, users should make their own investigations to determine the suitability of the information for their particular purpose.

232554

MATERIAL SAFETY DATA SHEET

This MSDS complies with OSHA'S Hazard Communication Standard 29 CFR 1910.1200 and OSHA Form 174

IDENTITY AND MANUFACTURER'S INFORMATION

NFPA Rating: Health-2; Flammability-3; Reactivity-0; Special--None	**HMIS Rating:** Health-2; Flammability-3; Reactivity-0; Personal Protection-B
Manufacturerd By: **Amrep Automotive Products Group** Address: 2910 West Beaver Street Jacksonville, Florida 32254	**DOT Description:** Consumer Commodity ORM-D **Identity** (trade name as used on label): AUTO ZONE BRAKE CLEANER AZP-10
Date Prepared: 6/12/04 Prepared By: LMA	MSDS Number: 501701684 Revision: 0
Information Calls: (904) 388-5732 **DOT EMERGENCY RESPONSE PHONE NUMBER: (800) 424-9300**	NOTICE: JUDGEMENT BASED ON INDIRECT TEST DATA

SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION

COMPONENTS-CHEMICAL NAMES AND COMMON NAMES (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)	CAS Number	SARA III LIST	OSHA PEL (ppm)	ACGIH TLV (ppm)	Carcinogen Ref. Source **
TOLUENE	108-88-3	Yes	200	50 (skin)	d
HEPTANE	142-82-5	No	500	400	d
CARBON DIOXIDE (propellant)	124-38-9	No	5000	5000	d
WARNING: This product contains a chemical or chemicals known to the State of California to cause birth defects or other reproductive harm.					

SECTION 2 - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: 200-232°F (range for the concentrate)	**Specific Gravity** (H2O = 1): 0.82 (for the concentrate only)
Vapor Pressure (PSIG @ 70°F) (Aerosols): 85-100	**Vapor Pressure** (Non-Aerosols) (mm Hg and Temperature): N/Ap
Vapor Density (Air = 1): N/E	**Evaporation Rate** (butyl Acetate = 1): N/E
Solubility in Water: Partial	**Water Reactive:** No
Appearance and Odor: Clear, colorless with strong solvent odor.	**VOC (Federal EPA Definition) = 94.62% (by weight)**

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

Flammability as per USA Flame Projection Test (aerosols): **EXTREMELY FLAMMABLE**	Auto Ignition Temperature: N/E	Flammability Limits in Air by % in Volume: % LEL: N/E % UEL: N/E
FLASH POINT AND METHOD USED (non-aerosols): N/Ap	**EXTINGUISHER MEDIA:** Foam, dry chemical; use water spray to cool exposed surfaces.	
SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus.		

Unusual Fire & Explosion Hazards: Do not expose aerosols to temperatures above 120°F or the container may rupture. Vapors are heavier than and may accumulate in low or inadequately ventilated areas. Vapors may travel along the ground to be ignited at locations distant fron handling site. Flashback or flame to the handling site may occur.

SECTION 4 - REACTIVITY HAZARD DATA

STABILITY [X] STABLE [ ] UNSTABLE	**HAZARDOUS POLYMERIZATION** [ ] WILL [X] WILL NOT OCCUR
Incompatibility (Mat. to avoid): Acids and strong oxidizers.	**Conditions to Avoid:** Open flame, welding arcs, heat, sparks.

Hazardous Decomposition Products: Includes, but not limited to smoke, fumes, carbon monoxide, carbon dioxide.

SECTION 5 - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: [X] INHALATION [ ] INGESTION [X] SKIN ABSORPTION [X] EYE [ ] NOT HAZARDOUS

ACUTE EFFECTS:

Inhalation: May cause headache, dizziness, asphyxia, anesthetic effects (CNS depression), unconsciousness, brain damage, and possibly death.

Eye Contact: May cause irritation	**Skin Contact:** May irritate and/or cause dermatitis.

Ingestion: Nausea, vomiting, and diarrhea; possible chemical pneumonitis or mild to severe pulmonary injury if aspirated into lungs.

CHRONIC EFFECTS: Concentrated, prolonged or deliberate inhalation may cause brain and CNS damage, and adverse fetal developmental effects. Chronic overexposure has been suggested as a cause of mild reversible kidney effects and/or CNS damage in laboratory animals.

Medical Conditions Generally Aggravated by Exposure: May aggravate existing eye, skin or upper respiratory conditions.

EMERGENCY FIRST AID PROCEDURES

Eye Contact: Flush with water for at least 15 minutes. If irritated, seek medical attention.

Skin Contact: Remove contaminated clothing; launder before re-use. Wash skin with soap and water; if irritated, seek medical attention.

Inhalation: Remove to fresh air; resuscitate if necessary. Administer oxygen if breathing is difficult. Seek medical attention.

Ingestion: DO NOT INDUCE VOMITING. Seek immediate medical attention.

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

Respiratory Protection (specify type): If vapor concentration exceeds TLV, use respirator approved by MSHA/NIOSH for organic vapor.

Protective Gloves: Disposable nitrile gloves are suggested.	**Eye Protection:** Safety glasses recommended.

Ventilation Requirements: Adequate ventilation to keep vapor concentration below TLV.

Other Protective Clothing & Equipment: Eyewash station; explosion proof local exhaust if conditions of use allow vapors to accumulate.

Hygienic Work Practices: Do not eat, drink or smoke in work areas. Wash hands after handling.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken If Material Is Spilled Or Released: Absorb spilled liquid with suitable medium. Do NOT flush to sewers or drains. Dispose according to local, state and federal regulations.

Waste Disposal Methods: Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.

Precautions To Be Taken In Handling & Storage: Do not puncture or incinerate containers. Do not store at temperatures above 120°F.

Other Precautions &/or Special Hazards: KEEP OUT OF REACH OF CHILDREN. Read and follow all label directions. Remove ignition sources. Avoid breathing vapors. Avoid food contamination.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind.

** Chemical Listed as Carcinogen or Potential Carcinogen. [a] NTP [b] IARC Monograph [c] OSHA [d] Not Listed [e] Animal Data Only

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

Identity (As Used on Label and List)
MAPP GAS

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION I

Supplier's Name
Bernz-O-matic

Emergency Telephone Number
585-798-4949

Address
Number, Street, City, State and ZIP Code
One BernzOmatic Drive
Medina, NY 14103

Telephone Number for Information
585-798-4949

Date Prepared
November 10, 2005

Signature of Preparer (Optional)

SECTION II - Hazardous Ingredients / Identity Information

Hazardous Components Specific Chemical Identity, Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Liquefied Petroleum Gas w/ Methylacetylene	N/A	N/A	N/A	
Liquefied Petroleum Gas CAS NO. 68476-85-7	1000PPM			56.0
Methyl Acetylene-Propadiene CAS NO. 56960-91-9	1000PPM			44.0

NFPA HAZARD RATINGS
Health -2
Flammability -4
Reactivity -2

HMIS RATINGS
Health -0
Flammability -4
Reactivity -2

Notes

SECTION III - Physical / Chemical Characteristics

Boiling Point
-54° F to -10° F

Specific Gravity (H_2O - 1)
0.571

Vapor Pressure (mm Hg)
@ 70° F 97 psig

Melting Point
N/A

Vapor Density (AIR=1)
1.48

Evaporation Rate
Butyl Acetate -1)
N/A

Solubility in Water
Slight

Appearance and Odor
Colorless - unpleasant odor at approx. 100ppm

SECTION IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Closed Cup -156° F	In air by volume	3.0	11.0

Extinguishing Media
Eliminate oxygen source or stop flow of gas. Use water to cool cylinder. Dry chemical or CO_2 to reduce oxygen.

Special Fire Fighting Procedures
Cool cylinders with water. Keep personnel away.

Unusual Fire and Explosion Hazards
Auto Ignition temp. 850° F. Keep ignition sources away from cylinder and continue to cool cylinder until gas flow is shut off. Escaping gas from cylinder may be ignited.

SECTION V - Reactivity Data

Stability →
Unstable
Stable X

Conditions to Avoid
Do not expose to tempatures above 125° F.

Incompatibility (Materials to Avoid)
Extremely flammable. Avoid uncontrolled contact with oxidizers.

Hazardous Decomposition or Byproducts
None

Hazardous Polymerization →
May Occur
Will Not Occur X

Conditions to Avoid
N/A

SECTION VI - Health Hazard Data

Routes of Entry →	Inhalation?	Skin?	Ingestion?
	YES	YES	UNLIKELY

Health Hazards (Acute and Chronic)

Asphyxiant. May reduce oxygen required for breathing. Liquid gas may freeze skin.

Carcinogenicity →	NTP?	IARC Monographs?	OSHA Regulated?
	N/A	N/A	NO

Signs and Symptoms of Exposure

Dizziness to unconsciousness if high concentrations of gas replace oxygen for breathing.

Medical Conditions Generally Aggravated by Exposure

N/A

Emergency and First Aid Procedures

Remove person to fresh air.. If unconscious, seek medical attention.

Warning

This fuel, and byproducts of combustion of this fuel, contain chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm.

SECTION VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Remove ignition sources. Ventilate area.

Waste Disposal Method

Vent to atmosphere in outdoor area free of all sources of ignition.

Precautions to be Taken in Handling and Storing

Store in well ventilated area away from all ignition sources.
Store at tempatures below 125° F. Store out of direct sunlight.

Other Precautions

N/A

SECTION VIII - Control Measures

Respiratory Protection (Specify Type)

Not required with normal use.

Ventilation →	Local Exhaust	Mechanical (General)	Special	Other
	Advisable when welding.	N/A	N/A	N/A

Protective Gloves	Eye Protection
Advisable when welding.	Use filter shade No. 4 or darker when welding.

Other Protective Clothing or Equipment

N/A

Work / Hygienic Practices

N/A

SECTION IX - Shipping Information

WHMIS Classification: A - Compressed Gas & B1-Flammable Gas — Class: 2.1

DOT	Proper Shipping Name	Hazard Classification	UN. No.
	Methyl Acetylene and Propadiene Mixtures, Stablized	Flammable Gas	1060

SAFETY DATA SHEET

1. Identification

Product identifier Butane

Other means of identification

SDS number WC026

Recommended use Hand Torch Fuel

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier Worthington Cylinder Corporation

Address 200 Old Wilson Bridge Road
Columbus, OH 43085
United States

Email: cylinders@worthingtonindustries.com

Telephone Number: 866-928-2657

CHEMTREC - 24 HOURS:

Within US and Canada 800-424-9300

Outside US and Canada +1 703-741-5970 (collect calls accepted)

2. Hazard(s) identification

Physical hazards Flammable gases — Category 1
Gases under pressure — Liquefied gas

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Extremely flammable gas. Contains gas under pressure; may explode if heated.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Storage Protect from sunlight. Store in a well-ventilated place.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) May displace oxygen and cause rapid suffocation.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Isobutane	75-28-5	60-80
Butane	106-97-8	20-40

4. First-aid measures

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center immediately.

Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. If frostbite occurs, immerse involved area in warm water (between 100°F/38°C and 110°F/43°C, not exceeding 112°F/44°C). Keep immersed for 20 to 40 minutes. Seek medical assistance.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Ingestion is not a typical route of exposure for gases or liquefied gases.
Most important symptoms/effects, acute and delayed	Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness.
Indication of immediate medical attention and special treatment needed	Exposure may aggravate pre-existing respiratory disorders. Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical, CO2, water spray, fog, or foam.
Unsuitable extinguishing media	Full water jet.
Specific hazards arising from the chemical	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move container from fire area if it can be done without risk. Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Extremely flammable gas.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary personnel away. Ensure adequate ventilation. In case of inadequate ventilation, use respiratory protection. Wear appropriate personal protective equipment (See Section 8).
Methods and materials for containment and cleaning up	Ventilate well, stop flow of gas or liquid if possible. Immediately contact emergency personnel. For waste disposal, see Section 13 of the SDS.
Environmental precautions	Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sanitary sewers, waterways and/or groundwater.

7. Handling and storage

Precautions for safe handling	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Use only with adequate ventilation. Do not breathe gas. Do not get in eyes, on skin, on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Keep away from heat, spark, open flames and other sources of ignition. Wear appropriate personal protective equipment (See Section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Risk of vapor concentration on the floor and in low-lying areas.

Conditions for safe storage, including any incompatibilities

Do not store, incinerate, or heat this material above 120 degrees Fahrenheit. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Secure cylinders in an upright position at all times, close all valves when not in use. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local, regional, national, and international regulations. Keep container tightly closed and sealed until ready for use. Protect cylinders from damage.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Isobutane (CAS 75-28-5)	STEL	1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Isobutane (CAS 75-28-5)	TWA	1900 mg/m3 800 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines Follow standard monitoring procedures.

Appropriate engineering controls Provide adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear approved safety glasses or goggles.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear protective clothing appropriate for the risk of exposure.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.

9. Physical and chemical properties

Appearance

Physical state Gas (Liquefied).

Form Compressed liquefied gas.

Color Colorless.

Odor Faint. Gasoline-like.

Odor threshold Not available.

pH Not available.

Melting point/freezing point -216.76 °F (-138.2 °C)

Initial boiling point and boiling range -11.7 °F (-24.28 °C)

Flash point -76.3 °F (-60.2 °C)

Evaporation rate Not available.

Flammability (solid, gas) Flammable gas.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 1.8 %

Flammability limit - upper (%)	8.4 %
Vapor pressure	28 psig (Approximate)
Vapor density	> 2 (Air = 1)
Relative density	0.57 (H2O = 1)
Solubility(ies)	
Solubility (water)	< 0.1 % in water at 70°F
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	548.33 °F (286.85 °C)
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Molecular formula	C4-H10
Molecular weight	58.12 g/mol
Percent volatile	100 %

10. Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions	Polymerization will not occur. May form explosive mixture with air. This product may react with oxidizing agents.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Strong acids. Halogens.
Hazardous decomposition products	Carbon oxides. Hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Inhalation	High concentrations: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.
Skin contact	Contact with liquefied gas may cause frostbite.
Eye contact	Contact with liquefied gas may cause frostbite.
Ingestion	Not likely, due to the form of the product.
Symptoms related to the physical, chemical and toxicological characteristics	Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness.

Information on toxicological effects

Acute toxicity	High concentration: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels.
Skin corrosion/irritation	Contact with liquefied gas might cause frostbites, in some cases with tissue damage.
Serious eye damage/eye irritation	Direct contact with liquefied gas may cause eye damage from frostbite.
Respiratory or skin sensitization	
Respiratory sensitization	Not classified.
Skin sensitization	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	Not classified.

Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not classified.
Chronic effects	May cause central nervous system effects.

12. Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	The product is readily biodegradable.
Bioaccumulative potential	The product is not expected to bioaccumulate.

Partition coefficient n-octanol / water (log Kow)

Butane (CAS 106-97-8)	2.89
Isobutane (CAS 75-28-5)	2.76

Mobility in soil	May evaporate quickly.
Mobility in general	May evaporate quickly.
Other adverse effects	None known.

13. Disposal considerations

Disposal instructions	Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 °F
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1011
UN proper shipping name	Butane
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	19, T50
Packaging exceptions	306
Packaging non bulk	304
Packaging bulk	314, 315

IATA

UN number	UN1011
UN proper shipping name	Butane
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1011
UN proper shipping name	Butane

Transport hazard class(es)

Class	2.1
Subsidiary risk	-
Label(s)	2.1

Packing group Not applicable.

Environmental hazards

Marine pollutant No.

EmS F-D, S-U

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Butane (CAS 106-97-8)	LISTED
Isobutane (CAS 75-28-5)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)

US. New Jersey Worker and Community Right-to-Know Act

Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)

US. Pennsylvania Worker and Community Right-to-Know Law

Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)

US. Rhode Island RTK

Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 28-May-2015

Revision date -

Version # 01

Further information Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS® ratings

Health: 1
Flammability: 4
Physical hazard: 1

NFPA ratings

Disclaimer

All information in this Material Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations. Worthington Cylinder Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Safety Data Sheet

Safety Data Sheet

SDS Name: Vacuum Pump Oil

1. Identification

Product Name: Vacuum Pump Oil

Catalog Number: Vacuum Pump Oil

Supplier Address: Uniweld Products, Inc.
2850 Ravenswood Rd.
Ft. Lauderdale, FL 33324

Information Phone No.: (954) 584-2000

EMERGENCY Phone No.: Call CHEMTREC day or night within USA and Canada 1-800-424-9300.
Outside USA and Canada +1 703-527-3887. Collect calls accepted.

SDS DATE REVISED: 08.07.2015

2. Hazard(s) identification

This material is not considered to be hazardous according to regulatory guidelines see Section 15.
Please see Section 3 and 15 for country specific classification information, and Section 11 for additional details

HEALTH HAZARDS
Classification of the substance or mixture

Hazard Classification: Not hazardous.

Label Elements Including Precautionary Statements
Symbol: None.

Signal Word: None.

Hazard Risk Statement: Not hazardous.

Precautionary Statement: Avoid contact with skin and eyes.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN: Wash with plenty of soap and water.

Other Hazard: None known.

Note : This information is based on test data from similar products. This product is not formulated to contain ingredients which have exposure limits established by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage. This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

3. Component Information

Substance/mixture Mixture

Other means of identification Not available.

CAS number/other identifiers
CAS number Not applicable.

EC number Mixture

Product code Not Available

Hazardous Substance(s) or Complex Substance(s) required for disclosure None Required

Ingredient Name Codes	CAS #	EC #	Concentration*	GHS Hazard
Hydrotreated Distillate, Heavy Paraffin	64742-54-7,	265-157-1	>95%	None Required
Proprietary			<0.2%	None Required

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i). If no EU or no CAS numbers are given for classified components the raw material supplier has applied for / will apply for exemption, have not sent the complete information yet , or there could be no obligation to give the EU or CAS numbers.

4. First Aid Measures

Inhalation: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Skin: Wash with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops get medical attention.

Eye : Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion: First aid is normally not required. Seek medical attention if discomfort occurs.

5. Firefighting Measures

EXTINGUISHING MEDIA Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.
Inappropriate Extinguishing Media: Straight streams of water

FIRE FIGHTING Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.
Hazardous Combustion Products: Smoke, Fume, Carbon Monoxide, Aldehydes,

FLAMMABILITY PROPERTIES Flash Point ASTM D92 (open cup typical)
216 (420)

Flammable Limits
(Approximate volume % in air):
LEL: N/D UEL: N/D

Autoignition Temperature: N/D

6. Spill or Leak Handling Procedures

SPILL MANAGEMENT

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn others of possible slipping hazard if applicable. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and Storage

HANDLING Prevent small spills and leakage to avoid slip hazard.
Static Accumulator: This material is a static accumulator.

STORAGE Do not store in open or unlabelled containers.

8. Exposure Controls / Personal Protection

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m^3 - ACGIH TLV, 10 mg/m^3 - ACGIH STEL.

Note: Information about recommended monitoring procedures can be obtained from the relevant agency(ies)/institute(s)

ENGINEERING CONTROLS The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation

PERSONAL PROTECTION Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Eye Protection:	If contact is likely, safety glasses with side shields are recommended.
Skin and Body Protection:	Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
Specific Hygiene Measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
ENVIRONMENTAL CONTROLS	See Sections 6, 7, 12, 13.

9. Physical and Chemical Properties

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

General Information

Physical State	Liquid
Color	Clear colorless to pale yellow
Odor	Characteristic
Odor Threshold	ND

OTHER INFORMATION

Pour Point °C (°F)	-12 (10) or below
Freezing Point	ND

Viscosity are +/- 10% cSt at 40°C 46

HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Density at 20°C	0.855 - 0.863
Flash Point typical °C (°F)	>205 (401) See Section 5
Flammable Limits	LEL: N/D UEL: N/D
Autoignition Temperature:	ND
Boiling Point °C (°F)	>200°C
Vapor Density (Air=1)	NA
Vapor Pressure	< 0.013 kPa (0.1 mm Hg) at 20°C
Evaporation Rate (N-Butyl Acetate = 1):	ND
Solubility in Water	Nil
Oxidizing Properties	See Sections 3, 15, 16.

10. Ecological Information

STABILITY:	Material is stable under normal conditions.
CONDITIONS TO AVOID:	Excessive heat. High energy sources of ignition.
MATERIALS TO AVOID:	Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS:	Material does not decompose at ambient temperatures.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. Toxicological Information

ACUTE TOXICITY

Potential acute health effects
Inhalation: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Eye contact: No known significant effects or critical hazards.

PRODUCT

Route of Exposure	**Conclusion / Remarks**
INHALATION **Toxicity: LC50 > 5000 mg/m3** **Irritation: No end point data.**	Minimally Toxic. Based on test data for structurally similar materials. Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
INGESTION **Toxicity: LD50 > 5000 mg/kg**	Minimally Toxic. Based on test data for structurally similar materials.
Skin **Toxicity: LD50 > 5000 mg/kg** **Irritation: Data available.**	Minimally Toxic. Based on test data for structurally similar materials. Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Eye **Irritation: Data available.**	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.
CHRONIC/OTHER EFFECTS **For the product itself:**	Repeated and/or prolonged exposure may cause irritation to the skin, eyes, or respiratory tract.
Base oil severely refined:	Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitising in test animals.
CARCINOGENIC EFFECTS:	Contains no carcinogens. Similar compounds essentially non-toxic. No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA), NTP or IARC. Although there is no specific test data on all the base oil components, the mineral base oil would not be expected to exhibit carcinogenic potential based on what is known of the toxicity of mineral base oils in general. The DMSO extract by IP 346 of the oil is less than 3%.(Typical 0.2% with Maximum 0.5%) Consequently it is not classified as a carcinogen. The base oil in this product is severely hydro-treated by all hydro-processing route. By this refining history would be showed no evidence of carcinogenic potential.
MUTAGENIC EFFECTS:	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.
TERATOGENIC EFFECTS/ DEVELOPMENTAL TOXICITY:	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.
REPRODUCTION TOXICITY:	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin. Additional information is available by request.

OVER – EXPOSURE SIGNS/SYMPTOMS

Skin	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.

12. Ecological Information

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY	Material -- Not expected to be harmful to aquatic organisms.
MOBILITY	Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.
PERSISTENCE AND DEGRADABILITY **Biodegradation:**	Base oil component -- Expected to be inherently biodegradable
BIOACCUMULATION POTENTIAL	Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.
ECOLOGICAL DATA	Data for Highly Refined Severely Hydrotreated Base oil for similar materials

TEST	Duration	Organism Type	Test Results
Aquatic - Chronic Toxicity	21 day(s)	Water Flea	NOELR 1.05 mg/l: data for similar materials
	7 days	Fish	NOEC: > 5000mg/L (IUCLID Dataset)
	7 days	Aquatic Invertebrates,	NOEC: > 5000mg/L (IUCLID Dataset)

Care should be taken to minimize release of this product into the environment

Environmental Fate & Distribution	No Data Available	**Other Typical (not a specification)**	
Persistence & Degradation Toxicity	No Data Available	Acute Toxicity to Fish:	No Data Available
Effect on Effluent Treatment	Product may be partially removed in biological treatment processes.	Effect Concentration on Algae:	No Data Available
		Ready Biodegradability:	No Data Available
		Respiration Inhibition:	No Data Available
		Adsorption/Desorption:	No Data Available
		Abiotic Degradability-Hydrolysis :	Not measurable

13. Disposal Considerations

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

European Waste Code: 13 01 10

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

This material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

14. Transport Information

LAND (ADR/RID) =: Not Regulated for Land Transport

INLAND WATERWAYS (ADNR): Not Regulated for Inland Waterways Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

US DOT Classification: Not Regulated
Marine Pollutant: Not a Pollutant
Special Provisions for transport: None Identified

ICAO/IATA Classification
Proper shipping name: Not regulated
IATA Class
UN number: Not regulated.
Packing Group: Not regulated.

ADR/RID Classification
UN number: Not regulated.
Proper shipping name: Not regulated.
ADR/RID Class: Not regulated.
Packing Group: Not regulated.

IMO/IMDG Classification
Proper shipping name: Not regulated
IMDG Class: Not regulated
UN number: Not regulated.
Packing Group: Not regulated.
Marine Pollutant: Not pollutant.

USA: No special warning labels are required under OSHA 29CFR 1910.1200. OSHA hazard warnings are not applicable for this product; therefore no OSHA Warnings would appear on the label. No EPA hazard classification code.

15. Regulatory Information Product Component Ingredients

Europe	**Material is not dangerous as defined by the EU Dangerous Substances/ Preparations Directives.**
EU LABELING:	**Not regulated according to EC Directives Material is not dangerous as defined by the EU Dangerous**
Substances/Preparations Directives.	Classification and labeling have been performed according to EU Directives 67/548/EEC, 1999/45/EC and 2001/58/EC (including amendments) and the intended use. - Consumer applications.
United States	**EPA SARA Title III Chemical Listings** Section 302 Extremely Hazardous Substances: None. Section 304 CERCLA Hazardous Substances: None.
OSHA HAZARD COMMUNICATION STANDARD:	When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.
Canada	**WHMIS** (Canadian Workplace Hazardous Materials Information System) This product when tested as a whole is not a controlled substance within the meaning of the Hazardous Products Act.
Germany:	Water Hazardous Class (WGK): 1 (low hazard to water)

NATIONAL LEGISLATION / REGULATIONS
Ozone depleting chemicals: No ozone depleting chemicals are present or used in manufacture.

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Complies with the following national/ regional chemical inventory requirements: DSL, ENCS, TSCA Special:

Inventory	Status
AICS	All components are listed or exempted.
ELINCS	Restrictions Apply
IECSC	All components are listed or exempted.
KECI	All components are listed or exempted.
PICCS	All components are listed or exempted.

Detail
U.S. Regulations

US INVENTORY (TSCA 8b): Listed on inventory.
SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355)::
This product is not regulated under Section 302 of SARA and 40 CFR Part 355.
SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370)::
Defined as non-hazardous by OSHA under 29 CFR 1910.1200(d).
SARA 313 toxic chemical notification and release reporting: No products were found.
CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4)::
This material is not regulated under CERCLA Sections 103 and 107.

State Regulations
California prop. 65: No products were found.
No products were found

16. Other Information

This product safety data sheet was prepared in compliance Conforms to HazCom 2012/United States. Certain elements refer to Commission Directive 2001/58/EC , 91/155/EEC, 67/548/EEC and 1999/45/EC for reference, as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.

History 17 September 2011 – minor organization update toward GHS format
21 –March 2014 - moved NFPA and HMIS to section 16 for GHS update in format

Date of issue: 8 August 2015

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations
N/D = Not determined, N/A = Not applicable

KEY TO THE RISK CODES CONTAINED IN SECTION 2 AND 3 OF THIS DOCUMENT (for information only)

U.S.A. Hazardous Material Information System and National Fire Protection Association (U.S.A.)

Degree of Hazard	NFPA	HMIS	HAZARD RATINGS
Health	1	1	0 Insignificant
Fire	1	1	1 Slight
Reactivity	0	0	2 Moderate
Personal Protection		B	3 High

The information and recommendations contained herein are, to the best of our knowledge and belief, accurate and reliable as of the date issued. You can contact us to insure that this document is the most current available. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.

SAFETY DATA SHEET

ECOLAB

CHLORINE BLEACH 2000

Section 1. Chemical product and company identification

Product name : CHLORINE BLEACH 2000

Recommended use and restrictions : Laundry product

Use only for the purpose on the product label.

Product dilution information : Not applicable

Supplier's information : Ecolab Inc.Textile Care Division
370 N. Wabasha Street
St. Paul, MN 55102
1-800-553-8683

Code : 914096

Date of issue : **12 Dec 2013**

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
Outside United States and Canada CALL 1-651-222-5352 (in USA)

Section 2. Hazards identification

Product AS SOLD

GHS Classification : SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

Product AT USE DILUTION

Product is sold ready to use.

GHS label elements

Signal word : Danger

Symbol :

Hazard statements : Causes severe skin burns and eye damage.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.

Response : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

Section 2. Hazards identification

do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage : No other specific measures identified.

Disposal : See section 13 for waste disposal information.

Other hazards : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product AS SOLD

Hazardous ingredients	Concentration Range (%)	CAS number
sodium hypochlorite	13	7681-52-9

Product AT USE DILUTION

Hazardous ingredients	Concentration Range (%)	CAS number
Product is sold ready to use.		

Section 4. First aid measures

Product AS SOLD

Eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Skin contact : Take off immediately all contaminated clothing. Rinse skin with water or shower. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.

Ingestion : Get medical attention immediately. Rinse mouth. Do not induce vomiting.

Product AT USE DILUTION

Product is sold ready to use.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See toxicological information (section 11)

Section 5. Fire-fighting measures

Product AS SOLD

Suitable fire extinguishing media : Use water spray, fog or foam.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
halogenated compounds
metal oxide/oxides

Specific fire-fighting methods : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Product AS SOLD

Personal precautions : Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see section 8). Do not touch or walk through spilled material.

Environmental precautions : Avoid contact of spilled material and runoff with soil and surface waterways.

Methods for cleaning up : Follow company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see section 8). Absorb/ neutralize liquid material. Use a tool to scoop up solid or absorbed material and put into appropriate labeled container. Use a tool to scoop up solid or absorbed material and place into appropriate labeled waste container. Use a water rinse for final clean-up.

Product AT USE DILUTION

Product is sold ready to use.

Section 7. Handling and storage

Product AS SOLD

Handling : Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Use only with adequate ventilation. Wash thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.

Storage : Keep out of reach of children. Keep container tightly closed.

Store between the following temperatures: 0 and 40°C

Product AT USE DILUTION

Product is sold ready to use.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
sodium hypochlorite chlorine	**AIHA WEEL (United States, 10/2011).** STEL: 2 mg/m³ 15 minutes. **ACGIH TLV (United States, 3/2012).** STEL: 2.9 mg/m³ 15 minutes. STEL: 1 ppm 15 minutes. TWA: 1.5 mg/m³ 8 hours. TWA: 0.5 ppm 8 hours. **OSHA PEL (United States, 6/2010).** CEIL: 3 mg/m³ CEIL: 1 ppm **NIOSH REL (United States, 6/2009).** CEIL: 0.5 ppm 15 minutes. CEIL: 1.45 mg/m³ 15 minutes.

Section 8. Exposure controls/personal protection

Product AS SOLD

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION
Product is sold ready to use.

Personal protection

Eye protection : Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.

Hand protection : Use chemical-resistant, impervious gloves.

Skin protection : Use synthetic apron, other protective equipment as necessary to prevent skin contact.

Respiratory protection : A respirator is not needed under normal and intended conditions of product use.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Section 9. Physical and chemical properties

Product AS SOLD

Product AT USE DILUTION
Product is sold ready to use.

Physical state : Liquid.

Color : Yellow [Light]

Odor : chlorine

pH : 12.5 (100%)

Flash point : > 100°C

Explosion limits : Not available.

Flammability (solid, gas) : Not available.

Melting point : Not available.

Boiling point : Not available.

Evaporation rate (butyl acetate = 1) : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.154 (Water = 1)

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Odor threshold : Not available.

Viscosity : Kinematic (room temperature): 0 cm^2/s (0 cSt)

Section 10. Stability and reactivity

Product AS SOLD

Stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Materials to avoid : Extremely reactive or incompatible with the following materials: acids.
Slightly reactive or incompatible with the following materials: metals.
Mixing this product with acid or ammonia releases chlorine gas.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Route of exposure : Skin contact, Eye contact, Inhalation, Ingestion

Product AS SOLD

Symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Inhalation : Adverse symptoms may include the following:
coughing
Respiratory tract irritation

Ingestion : Adverse symptoms may include the following:
stomach pains

Acute toxicity

Eye contact : Causes serious eye damage.

Skin contact : Causes severe burns.

Inhalation : May cause respiratory irritation.

Ingestion : May cause burns to mouth, throat and stomach.

Product AT USE DILUTION

Product is sold ready to use.

Toxicity data

Product/ingredient name			
sodium hypochlorite	LD50 Dermal	Rabbit	>10000 mg/kg
	LD50 Oral	Rat	5230 mg/kg

Chronic toxicity

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Product AS SOLD

Ecotoxicity : This material is very toxic to aquatic life.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
sodium hypochlorite	Acute EC50 0.071 mg/l	Daphnia	48 hours

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Product AS SOLD

Disposal methods : Avoid disposal. Attempt to use product completely in accordance with intended use. Disposal should be in accordance with applicable regional, national and local laws and regulations.

RCRA classification : Unused product is D002 (Corrosive)

Product AT USE DILUTION
Product is sold ready to use.

Section 14. Transport information

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

DOT

DOT Classification	UN1791
DOT Proper shipping name	Hypochlorite solutions
Class	8
Packing group	III

IMO/IMDG

IMO/IMDG Classification	UN1791
IMO/IMDG Proper shipping name	HYPOCHLORITE SOLUTION. Marine pollutant (sodium hypochlorite)
Class	8
Packing group	III

For transport in bulk, see shipping documents for specific transportation information.

Product AT USE DILUTION
Not intended for transport.

Section 15. Regulatory information

Product AS SOLD

U.S. Federal regulations

TSCA 8(b) inventory : All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No listed substance

SARA 302/304 emergency planning and notification: No listed substance

SARA 313	Product name	CAS number	Concentration
Form R - Reporting requirements	: No listed substance		

California Prop. 65 : WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16. Other information

Product AS SOLD

Hazardous Material Information System (U.S.A.) :

Health	3
Flammability	0
Physical hazards	0

National Fire Protection Association (U.S.A.) :

Date of issue : **12 Dec 2013**

Prepared by : Regulatory Affairs
1-800-352-5326

Notice to reader

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.

SAFETY DATA SHEET

Revision Date 08-Apr-2015 **Version** 1

1. IDENTIFICATION

Product identifier
Product Name Black Magic Tire Wet

Other means of identification
Product Code 615608
Document SKU: BC22010, BM23, 22320, 120011, 120016
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use Tire Dressing Consumer Use
Uses advised against All other applications

Details of the supplier of the safety data sheet

Supplier Address
ITW Global Brands
6925 Portwest Dr., Suite 100
Houston, TX 77024

Manufacturer Address
ITW Global Brands

Distributor

Company Phone Number 1-855-888-1988
24 Hour Emergency Phone Number Chemtrec 1-800-424-9300
(CHEMTREC) 1-800-424-9300 or 1-703-527-3887 (U.S.)
(RMPDC) 1-877-504-9352 (U.S.)

E-mail address SDS@itwgb.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Aspiration toxicity	Category 1

Label elements

Emergency Overview

Danger

Combustible Liquid
May be fatal if swallowed and enters airways

Appearance Clear liquid **Physical state** Liquid **Odor** Cherry

Precautionary Statements - Prevention
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash hands and exposed skin after handling
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
IF ON SKIN: Wash with plenty of soap and water
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Keep out of reach of children

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
May be harmful if swallowed. Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

substance(s)

Chemical Name	CAS No	Weight-%	Trade Secret
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	64742-47-8	60 - 100	*
POLYDIMETHYLSILOXANE	63148-62-9	7 - 13	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice Get medical advice/attention if you feel unwell.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact IF ON SKIN:. Wash skin with soap and water. If skin irritation persists, call a physician. Wash contaminated clothing before reuse.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion IF SWALLOWED:. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media
None.

Specific hazards arising from the chemical
Combustible material.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Slippery, can cause falls if walked on. Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place.

Incompatible materials Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Appropriate engineering controls

Engineering Controls	Showers Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	None under normal use conditions. Wear protective gloves and protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear liquid
Odor	Cherry
Odor threshold	No information available

Property	Values	Remarks • Method
pH	Not applicable	
Melting point / freezing point	No information available	
Boiling point / boiling range	176 °C / 350 °F	
Flash point	82.23 °C / 180 °F	Setaflash Closed Cup
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	0.84 @ 20°C 0.84	
Water solubility	Insoluble	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	<1%
Density	0.84 g/cm3 @ 20°C
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
Stable under normal use

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents

Hazardous Decomposition Products
Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation Vapors may be irritating to eyes, nose, throat, and lungs. Expected to be low order of toxicity under normal conditions of use. May cause drowsiness or dizziness. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

Eye contact Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact May cause skin irritation and/or dermatitis.

Ingestion May be harmful if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
POLYDIMETHYLSILOXANE 63148-62-9	> 17 g/kg (Rat)	> 2 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 5474 mg/kg
ATEmix (dermal) 2004 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT 64742-47-8	-	45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static	4720: 96 h Den-dronereides heteropoda mg/L LC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
Disperses in water.

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Not applicable

14. TRANSPORT INFORMATION

DOT
Proper shipping name: Not regulated

IATA
Proper shipping name: Not regulated

IMDG
Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Not determined
IECSC	Not determined
KECL	Not determined
PICCS	Not determined
AICS	Not determined

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

NFPA	**Health hazards** 1	**Flammability** 2	**Instability** 0	-
HMIS	**Health hazards** 1	**Flammability** 2	**Physical hazards** 0	**Personal protection** B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date	08-Apr-2015
Revision Note	2

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

1301 E. 9th Street, #700
Cleveland OH 44114
(800) 726-9626

Barnes Distribution

Material Safety Data Sheet

MSDS Form No. : 002023
Item No. : 21949
MATERIAL SAFETY DATA SHEET
BATTERY TERMINAL PROTECTORS

------SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ------

MSDS Name: BATTERY TERMINAL PROTECTORS
Product CAS: (none)
Product Code:
Synonyms: 21949; BATTERY TERMINAL PROTECTORS
Company Identification:
Name: BOWMAN DISTRIBUTION
Address: 1301 E. 9TH ST., ST. 700
Address:
City: CLEVELAND State: OH Zip: 44114
For information, call: HEALTH ISSUES AND TECHNICAL INFORMATION (8AM-5PM ET):
1-216-416-
7200 X 5860
Emergency Number: ROCKY MOUNTAIN POISON CONTROL CENTER (24 HOURS EVERYDAY):
1-303-
623-5716
Emergency Agency: CHEMTREC (24 HOURS EVERYDAY)
Number: 1-800-424-9300
MSDS Creation Date: 6/7/2005
Supersedes Date: 1/1/2003

------SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ------

Chemical Name	CAS	MIN	MAX
MINERAL OIL	PROPRI-ET-A	90	90

Miscellaneous:

CHEMICAL	PEL PPM	TLV PPM	TLV MG/M3	UEL
MINERAL OIL	NONE	NONE	5.0	N/A

SARA HAZARD: NONE (NOT LISTED-TITLE III, SECTION 313)

CARCINOGENICITY: THIS PRODUCT IS NOT CONSIDERED A SUSPECTED ANIMAL CARCINOGEN BY THE NATIONAL TOXICITY PROGRAM, THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER, OR THE OCCUPTIONAL SAFETY AND HEALTH ADMIN.

PURSUANT TO PROPOSITION 65: CERTAIN RAW MATERIALS USED IN MAKING THIS PRODUCT MAY CONTAIN SMALL AMOUNTS OF MATERIALS AS IMPURITIES WHICH ARE REGULATED BY PROPSOTION 65.
Lbs of VOC per Gallon Coating (minus water): 0
Coating Density (lbs/gal): 0
Solvent Density (lbs/gal): 0
Percent Solvent (volume): 0
Percent Solids (volume): 0
Percent Water (volume): 0

------SECTION 3 - HAZARDS IDENTIFICATION ------

NFPA: Health: Fire: Reactivity: Other:
HMIS: Health: 1 Fire: 1 Reactivity: 0 Special Protection:
Miscellaneous:

POTENTIAL HEALTH EFFECTS
Target Organs:
PRIMARY ROUTES OF EXPOSURE: INHALATION, SKIN CONTACT.
Eye:
SIGNS AND SYMPTOMS OF OVEREXPOSURE CHRONIC HEALTH HAZARDS: MAY CAUSE IRRITATION.
Skin:
SIGNS AND SYMPTOMS OF OVEREXPOSURE CHRONIC HEALTH HAZARDS: MAY CAUSE IRRITATION.
Ingestion:
Inhalation:
SIGNS AND SYMPTOMS OF OVEREXPOSURE CHRONIC HEALTH HAZARDS: HEAVY MIST CONCENTRATION MAY CAUSE BREATHING DIFFICULTIES.
Miscellaneous:
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NOT APPLICABLE.

CHRONIC OVEREXPOSURE: NOT APPLICABLE.

HEALTH HAZARDS (ACUTE AND CHRONIC-INCLUDE ORGAN EFFECTS): SEE ABOVE.

------SECTION 4 - FIRST AID MEASURES ------

Eye:
CONTACT: FLUSH WITH LARGE AMOUNTS OF WATER.

Skin:
CONTACT: WASH WITH SOAP AND WATER.
Ingestion:
DO NOT INDUCE VOMITING.
Inhalation:
REMOVE TO FRESH AIR.
Notes to Physician:

------SECTION 5 - FIRE FIGHTING MEASURES ------

Unusual Fire and Explosion Hazards:
TREAT AS OIL FIRE.
Special Fire Fighting Procedures:
TREAT AS OIL FIRE.
Extinguishing Media:
CARBON DIOXIDE, FOAM, DRY CHEMICALS.
Flash Point:
475- COC F
Flammable Limits:
Lower Limit:
(%): LEL N.A.
Upper Limit:
(%): UEL N.A.
AutoIgnition Temperature:
N.A.
General Information:
FLAMMABILITY LIMITS (%): N.D.

------SECTION 6 - ACCIDENTAL RELEASE MEASURES ------

Disposal:
WASTE DISPOSAL METHOD DISPOSE OF IN ACCORDANCE WITH, FEDERAL, STATE, AND
LOCAL REGULATIONS.

RCRA HAZARDOUS WASTE NUMBER: N.D.
Spills/Leaks:
ABSORB MATERIAL AND PLACE IN METAL CONTAINER.

------SECTION 7 - HANDLING and STORAGE ------

Handling:
SEE "STORAGE".
Storage:

STORE IN COOL, DRY AREA.

------SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ------

Engineering Controls:
LOCAL EXHAUST: IF MISTING OCCURS, VENTILATE TO KEEP MIST BELOW TLV.;
MECHANICAL: IF MISTING OCCURS, VENTILATE TO KEEP MIST BELOW TLV.
Eyes:
SAFETY GOGGLES.
Skin:
PROTECTIVE GLOVES: NOT NEEDED.
Clothing:
OTHER PROTECTION: N.D.
Respirators:
MASK TO ELIMINATE MIST, IF NEEDED.

------SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ------

Appearance/Odor:
RED, LUBRICANT-LIKE
pH: N.A.
Vapor Pressure: N.A.
Vapor Density: HEAVIER THAN AIR
Evaporation Rate: SLOWER THAN ETHER
Viscosity: N.A.
Boiling Point: ABOVE 900 DEGF
Freezing/Melting Point: FREEZING POINT: N.A.
Decomposition Temperature: N.A.
Solubility: IN WATER: NO
Specific Gravity: .970
Molecular Formula: N.A.
Molecular Weight: N.A
Miscellaneous:
MATERIAL IS: LIQUID.
VOLATILE: NEGILGIBLE

% SOLID BY WEIGHT: N.D.

------SECTION 10 - STABILITY AND REACTIVITY ------

Chemical Stability:
STABLE.
Conditions to Avoid:
STABILITY: NONE.

IDENTIFICATION NUMBER: NONE.

PACKING GROUP: NONE.

LABELS: NONE.
Label Information:

------SECTION 15 - REGULATORY INFORMATION ------

Regulatory Information:
TSCA STATUS: N.A.

NSR STATUS (CANADA): N.A.

SARA TITLE III:

HAZARD CATEGORIES:
ACUTE HEALTH: NO
CHRONIC HEALTH: NO
FIRE HAZARD: YES
PRESSURE HAZARD: NO

REPORTABLE INGREDIENTS:
SECTION 302/303: NONE
SECTION 313: NONE.

EXTREMELY HAZARDOUS SUBSTANCES: NONE.

CERCLA RQ: N.D.

------SECTION 16 - ADDITIONAL INFORMATION ------

Additional Information:
N.A. - NOT APPLICABLE N.D. - NOT DETERMINED N.E. - NOT ESTABLISHED

SAFETY DATA SHEET

Penn Grade 1® SAE 30 Break In Racing Oil

*Prepared according to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian **WorkSafe**, Japanese Industrial Standard JIS Z 7250:2000, and European Union REACH Regulations*

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	**Penn Grade 1™ SAE 30 Break In Racing Oil**
PRODUCT CODE:	BP7120
PRODUCT DESCRIPTION:	Hydrotreated Heavy Paraffinic Distillate – High Performance Engine Oil Mixture
CAS#	
MANUFACTURER'S NAME:	**Brad Penn Lubricants, LLC.**
ADDRESS:	801 Edwards Drive, Lebanon, IN 46052 USA
EMERGENCY PHONE:	1-800-899-9004 **TOLL-FREE in USA/Canada**
BUSINESS PHONE:	1-317-923-5321 (Product Information)
WEB SITE:	www.bradpenn.com
DATE OF PREPARATION:	10 May 2015
DATE OF LAST REVISION:	8 April 2015

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This product is a green colored liquid with a hydrocarbon odor.
HEALTH HAZARDS: Prolonged or repeated exposure may cause irritation to eyes, respiratory system and skin. Repeated exposure may cause dryness of the skin.
FLAMMABILITY: This product is not classified as a flammable liquid. Flashpoint: >215°C (420°F) ASTM D-92
ENVIRONMENTAL EFFECTS: The Environmental effects of this product have not been investigated. Floats on water. If it enters soil, it will be absorbed to soil particles and will not be mobile. This product may cause gastrointestinal distress in birds and mammals through ingestion during pelage grooming.

US DOT SYMBOLS	CANADA (WHMIS) SYMBOLS	EUROPEAN and (GHS) Hazard Symbols
Non-Regulated	Not Controlled	

Signal Word: **Warning!**

GHS LABELING AND CLASSIFICATION:
CLASSIFICATION OF SUBSTANCE OR MIXTURE IN ACCORDANCE WITH 29 CFR 1200 (OSHA HCS) AND THE EUROPEAN UNION DIRECTIVES:
This product does meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 AND the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

Classification of the substance or mixture according to Regulation (EC) No1272/2008 Annex VI

EC# 265-157-1 AnnexVI Index# 649-467-00-8 Severely Hydrotreated with less than 3 % DMSO extract as measured by IP 346

EC# 265-101-6 Annex VI Index# 649-459-00-4 Severely Hydrotreated with less than 3 % DMSO extract as measured by IP 346

Substances not listed either individually or in group entries must be self classified

Components Contributing to Hazard:
All Ingredients

GHS Hazard Classification(s):
Skin Irritation Category 2
Eye Irritation Category 2B
Acute Aquatic Toxicity Category 3

Hazard Statement(s):
H319: Causes eye irritation
H315: Causes skin irritation
H412: Harmful to aquatic life with long lasting effects

Precautionary Statement(s):
P264: Wash hands thoroughly after handling
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection

EU HAZARD CLASSIFICATION PER DIRECTIVE 1999/45/EC:

[Xi] Irritant, [N] Dangerous to the Environment

Risk Phrases:

R36/38: Irritating to eyes and skin

R51/53: Toxic aquatic organisms with long lasting effects

Safety Phrases:

S24/25: Avoid contact with skin and eyes

S37/39: Wear suitable gloves and eye/face protection

S61: Avoid release to the environment

HEALTH HAZARDS OR RISKS FROM EXPOSURE:

ACUTE:

EYE: Expected to cause mild irritation of the eye if exposed to liquid spray or mist. May cause tearing, or burning of the eyes.

SKIN: May cause mild skin irritation from prolonged or repeated skin contact. Symptoms of irritation may include redness, drying, and cracking of the skin.

INHALATION: No significant adverse health effects are expected to occur upon short-term exposure

INGESTION: Ingestion can cause mild irritation of the digestive tract or cause a laxative effect. Because of the low viscosity of this material, this material can enter the lungs directly by aspiration during swallowing or vomiting. If aspirated into lungs, this material can cause severe lung damage.

CHRONIC: Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne.

TARGET ORGANS: ACUTE: Eye, Skin CHRONIC: Skin

SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	EINECS #	ICSC #	WT %	HAZARD CLASSIFICATION; RISK PHRASES
Highly Hydrotreated Heavy paraffinic Distillate	64742-54-7	265-157-1	Not Listed	45 - 55%	HAZARD CLASSIFICATION: [Xi] Irritant RISK PHRASES: R36/38
Highly Hydrotreated Residual Oils (Petroleum) Solvent Refined	64742-01-4	265-101-6	Not Listed	15 – 25%	HAZARD CLASSIFICATION: [Xi] Irritant RISK PHRASES: R36/38
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).					

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000.*

SECTION 4 - FIRST-AID MEASURES

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label, bill of lading and/or MSDS to health professional with contaminated individual.

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention if irritation persists.

SKIN CONTACT: Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before re-use.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if breathing dificulty continues.

INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin problems may be aggravated by prolonged contact.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and reduce over-exposure.

SECTION 5 - FRE-FIGHTING MEASURES

FLASH POINT: >215°C (420°F) ASTM D-92

AUTOIGNITION TEMPERATURE: Not Established

FLAMMABLE LIMITS (in air by volume, %): Lower (LEL): Not Available Upper (UEL): Not Available

FIRE EXTINGUISHING MATERIALS: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

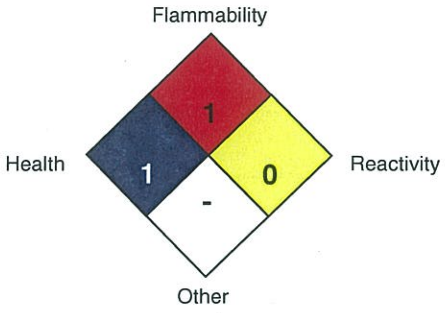
UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not use straight streams of water. This product is a combustible liquid at temperatures above flash point.

Explosion Sensitivity to Mechanical Impact: Not Sensitive.

Explosion Sensitivity to Static Discharge: Not Sensitive

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD (BLUE)	1
FLAMMABILITY HAZARD (RED)	1
PHYSICAL HAZARD (YELLOW)	0

PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8

For Routine Industrial Use and Handling Applications

Hazard Scale: **0** = Minimal **1** = Slight **2** = Moderate **3** = Serious **4** = Severe * = Chronic hazard

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Personnel should be trained for spill response operations.

SPILLS: Contain spill if safe to do so. Product may create a slip hazard if not cleaned up. Prevent entry into drains, sewers, and other waterways. Soak up with an absorbent material and place in an appropriate container for disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

If spill of any amount is made into or upon navigable waters, the contiguous zone or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors/mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: Containers of this product must be properly labeled. Store containers in a cool, dry location. Keep container tightly closed when not in use. Protect from physical damage.

Other precautions: For professional industrial use only. Good personal hygiene is important. Empty containers retain residue which can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other ignition sources; they may explode and cause injury or death

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

Chemical Name	CAS#	ACGIH TWA	OSHA TWA	SWA
Mineral Oils	Various	5 mg/m³ Oil Mist	5 mg/m³ Oil Mist	5 mg/m³ Oil Mist

Currently, International exposure limits are not established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above. Use local exhaust ventilation to control airborne vapor. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Not normally required. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or chemical goggles as appropriate to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

HAND PROTECTION: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
APPEARANCE & ODOR:	Green colored liquid with a hydrocarbon odor.
ODOR THRESHOLD (PPM):	Mild
VAPOR PRESSURE (mmHg):	0
VAPOR DENSITY (AIR=1):	No Data Available
EVAPORATION RATE (nBuAc = 1):	No Data Available
BOILING POINT (C°):	>329°C (>625°F)
MELTING POINT (C°):	No Data Available
pH:	No Data Available
SPECIFIC GRAVITY:	0.885 @ 60°F
VISCOSITY:	No Data Available
SOLUBILITY IN WATER (%)	Negligible

SECTION 10 - STABILITY and REACTIVITY

STABILITY: Product is stable

DECOMPOSITION PRODUCTS: Material does not decompose under normal storage conditions. When heated to decomposition this product produces carbon dioxide and carbon monoxide.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizers

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contact with incompatible materials. Excessive heat and high energy sources of ignition.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICITY DATA: Toxicity data is not available for mixture: Information given is based on data on the components and toxicology of similar products.

Acute Oral Toxicity LD50 >5,000 mg/kg

Acute Dermal Toxicity LD50 >4,000 mg/kg

SUSPECTED CANCER AGENT: This product does not contain an ingredient(s) that are found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore is not considered to be, or suspected to be a cancer-causing agent by these agencies.

This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

IRRITANCY OF PRODUCT: Contact with this product can be irritating to exposed skin and eyes.

REPRODUCTIVE TOXICITY INFORMATION: No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.

ADDITIONAL INFORMATION: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible.

Continuous contact with used engine oils has caused skin cancer in animal tests

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: It is not expected to be biodegradable. Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: If applied to leaves, this product may kill grasses and small plants by interfering with transpiration and respiration. This product is not toxic to fish but may coat gill structures resulting in suffocation if spilled in shallow, running water. Product may be moderately toxic to amphibians by preventing dermal respiration. This product may cause gastrointestinal distress in birds and mammals through ingestion during pelage grooming.

EFFECT OF CHEMICAL ON AQUATIC LIFE: No evidence is currently available on this product's effects on aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains, or in water courses. Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

SECTION 14 - TRANSPORTATION INFORMATION

US DOT; IATA; IMO; ADR:

THIS PRODUCT IS NOT HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Non-Regulated Material

HAZARD CLASS NUMBER and DESCRIPTION: : None

UN IDENTIFICATION NUMBER: None

PACKING GROUP: None

DOT LABEL(S) REQUIRED: None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2004): None

MARINE POLLUTANT: None of the ingredients are classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:

This product is not classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

This product is not classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

This product is not classified as Dangerous Goods, by rules of IATA:

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:

This product is not classified as Dangerous Goods by the International Maritime Organization.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):

This product is not classified by the United Nations Economic Commission for Europe to be dangerous goods.

SAFETY DATA SHEET

Penn Grade 1® SAE 30 Break In Racing Oil

SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This product components are not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows: none

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: Yes Chronic Health: Yes Fire: No Reactivity: No

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does contain ingredient(s) which are on the California Proposition 65 lists.

WARNING! This product contains the following chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components: .067 ppm cadmium, .065 ppm arsenic, .068 ppm lead, 2.1 ppm benzene, .003% toluene, 150 ppm naphthalene, and .001 ppm ethyl benzene.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product is categorized as "Not Controlled", as per the Controlled Product Regulations

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

EU LABELING AND CLASSIFICATION:

Classification of the mixture according to Regulation (EC) No1272/2008. See section 2 for details.

AUSTRALIAN INFORMATION FOR PRODUCT:

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS: All components of this product are listed or exempt on the AICS.

STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS: Not applicable.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac:	Listed
Australian Inventory of Chemical Substances (AICS):	Listed
Korean Existing Chemicals List (ECL):	Listed
Japanese Existing National Inventory of Chemical Substances (ENCS):	Listed
Philippines Inventory if Chemicals and Chemical Substances (PICCS):	Listed
Swiss Giftliste List of Toxic Substances:	Listed
U.S. TSCA:	Listed

SECTION 16 - OTHER INFORMATION

Disclaimer: The information in this document is believed to be correct as of the date issued. **HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE.** This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

MATERIAL SAFETY DATA SHEET

Consumer Products Division, Division of Borden, Inc.
180 EAST BROAD STREET, COLUMBUS, OHIO 43215

Emergency Telephone
(614) 457-5200
(OPERATION ALERT)

THE OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200 REQUIRES THAT THE INFORMATION CONTAINED ON THIS SHEET BE MADE AVAILABLE TO YOUR WORKERS.

INSTRUCT YOUR WORKERS TO HANDLE THIS PRODUCT PROPERLY

NAME: **BRITE TOUCH SPRAY PAINT**
TYPE: **"AEROSOL" SPRAY PAINT** **30-Jun-86**
APPLICATION: **ITEM NOS.: B-10 THRU B-51**

SIGNAL WORD-DANGER!

THIS MATERIAL IS A "HEALTH HAZARD" AND/OR A "PHYSICAL HAZARD" AS DETERMINED WHEN REVIEWED ACCORDING TO THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION 29 CFR PART 1910.1200 "HAZARD COMMUNICATION" STANDARD.

CHEMICAL HAZARD RATING
HEALTH=2(MODERATE)
FIRE=4(EXTREME)
REACTIVITY=0(LEAST)
CHRONIC=*

29CFR1910.1200 HAZARDOUS INGREDIENTS/REPORTED HEALTH EFFECTS
CAS REGISTRY NO. MATERIAL DESCRIPTION % BY WT.

67-64-1 ACETONE 7.6-14.2
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.
ACGIH TLV: 750 PPM (1780 MG/M3) TWA; 1000 PPM (2375 MG/M3) STEL
OSHA PEL: 1000 PPM (2400 MG/M3) TWA
NIOSH DOCUMENT NUMBER: 78-173

74-98-6 PROPANE 21.0
THIS MATERIAL IS A SIMPLE ASPHYXIANT. SIGNS AND SYMPTOMS OF OVEREXPOSURE INCLUDE CYANOSIS, RESPIRATORY DISTRESS, HEADACHE, DIZZINESS, DROWSINESS, UNCONSCIOUSNESS AND ASPHYXIATION.
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.
ACGIH TLV: SIMPLE ASPHXIANT-SEE ACGIH TLVS, APPENDIX E
OSHA PEL: 1000 PPM (1800 MG/M3) TWA

75-28-5 ISOBUTANE 14.0

108-10-1 METHYL ISOBUTYL KETONE 0-2.6
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.
ACGIH TLV: 50 PPM (205 MG/M3) TWA; 75 PPM (300 MG/M3) STEL
OSHA PEL: 100 PPM (410 MG/M3) TWA
NIOSH DOCUMENT NUMBER: 78-173

108-88-3 TOLUENE 8.8-19.2
OVEREXPOSURE MAY CAUSE LIVER DAMAGE.
OVEREXPOSURE MAY CAUSE KIDNEY DAMAGE.
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND ASPHYXIATION. REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY LEAD TO ADDICTION AND MAY BE HARMFUL OR FATAL.
ACGIH TLV: 100 PPM (375 MG/M3) TWA; 150 PPM (560 MG/M3) STEL
OSHA PEL: 200 PPM TWA; 300 PPM CEILING; 500 PPM 10-MIN. PEAK
NIOSH DOCUMENT NUMBER: 73-11023

110-54-3 HEXANE 13.2-21.5
CHRONIC EXPOSURES HAVE CAUSED PERIPHERAL NEUROPATHY.
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING AND DROWSINESS.
ACGIH TLV: 50 PPM (180 MG/M3) TWA
OSHA PEL: 500 PPM (1800 MG/M3) TWA
NIOSH DOCUMENT NUMBER: 77-151

1330-20-7 XYLENE 0.1-5.8
OVEREXPOSURE MAY CAUSE LIVER DAMAGE.
OVEREXPOSURE MAY CAUSE KIDNEY DAMAGE.
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.
ACGIH TLV: 100 PPM (435 MG/M3) TWA; 150 PPM (655 MG/M3) STEL
OSHA PEL: 100 PPM (435 MG/M3) TWA
NIOSH DOCUMENT NUMBER: 75-168

8032-32-4 V.M.&P. NAPHTHA 2.7-6.6
CAN CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. SIGNS AND SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, VOMITING, UNCONSCIOUSNESS AND EVEN ASPHYXIATION.
ACGIH TLV: 300 PPM (1350 MG/M3) TWA; 400 PPM (1800 MG/M3) STEL
NIOSH DOCUMENT NUMBER: 77-192

PHYSICAL DATA
VAPOR PRESSURE -- SEE CAN PRESSURE
VAPOR DENSITY HEAVIER THAN AIR
SOLUBILITY IN WATER -- SLIGHT
SPECIFIC GRAVITY LIGHTER THAN WATER
EVAP RATE FASTER THAN BUTYL ACETATE
BOILING POINT; APPEARANCE; ODOR -- N.A.
PERCENT VOLATILE BY WEIGHT 80 TO 89
PERCENT NON-VOLATILE BY WEIGHT 11 TO 20
PRESSURE IN CONTAINER, PSIG @ 70 F. APPROX. 40

ACUTE HEALTH HAZARD DATA
SKIN ABSORPTION: NO HAZARDS KNOWN TO BORDEN.
INGESTION: MAY BE HARMFUL IF SWALLOWED.
INHALATION: MAY BE HARMFUL IF INHALED. LIQUID OR VAPOR CAN CAUSE IRRITATION OF NOSE, THROAT AND LUNGS.
SKIN: CAUSES IRRITATION.
EYES: CAUSES IRRITATION.

HANDLING PRECAUTIONS
INHALATION: AVOID BREATHING VAPOR OR MIST.
USE WITH ADEQUATE VENTILATION.
SKIN: AVOID CONTACT WITH SKIN.
EYES: AVOID CONTACT WITH EYES.
HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES. THESE PRACTICES INCLUDE AVOIDING UNNECESSARY EXPOSURE AND REMOVAL OF THE MATERIAL FROM EYES, SKIN AND CLOTHING.
WASH THOROUGHLY AFTER HANDLING.

EMERGENCY AND FIRST AID PROCEDURES
INGESTION: IF SWALLOWED, DO NOT INDUCE VOMITING. CALL A PHYSICIAN IMMEDIATELY.
INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN.
SKIN CONTACT: FLUSH SKIN WITH WATER. IF IRRITATION PERSISTS, CALL A PHYSICIAN.
EYE CONTACT: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. EYELIDS SHOULD BE HELD APART DURING IRRIGATION TO INSURE WATER CONTACT WITH ENTIRE SURFACE OF EYES AND LIDS. CALL A PHYSICIAN.

SEE REVERSE SIDE

FIRE AND EXPLOSION HAZARD DATA

EXTREMELY FLAMMABLE.
CONTENTS UNDER PRESSURE; EXPOSURE TO HIGH TEMPERATURE MAY CAUSE BURSTING. AVOID RADIATORS, STOVES, DIRECT SUNLIGHT, OR OTHER HEAT SOURCE. DO NOT PUNCTURE OR INCINERATE CONTAINER. DO NOT SPRAY NEAR OPEN FLAME.
IN CASE OF FIRE, USE DRY CHEMICAL, FOAM OR CO2, WATER MAY BE INEFFECTIVE, BUT SHOULD BE USED TO KEEP FIRE-EXPOSED CONTAINERS COOL.

REACTIVITY DATA

NORMALLY STABLE AS DEFINED IN NFPA 704-12(4-3.1).
MAJOR DECOMPOSITION PRODUCTS: CO, CO2
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

CONTROL MEASURES

IF AIRBORNE CONTAMINANTS ARE GENERATED WHEN THE MATERIAL IS HEATED OR HANDLED, SUFFICIENT VENTILATION IN VOLUME AND AIR FLOW PATTERNS SHOULD BE PROVIDED TO KEEP AIR CONTAMINANT CONCENTRATION LEVELS BELOW ACCEPTABLE CRITERIA.
ENGINEERING CONTROLS: THE FOLLOWING EXPOSURE CONTROL TECHNIQUES MAY BE USED TO EFFECTIVELY MINIMIZE EMPLOYEE EXPOSURE: LOCAL EXHAUST VENTILATION, ENCLOSED SYSTEM DESIGN, PROCESS ISOLATION AND REMOTE CONTROL IN COMBINATION WITH APPROPRIATE USE OF PERSONAL PROTECTIVE EQUIPMENT AND PRUDENT WORK PRACTICES. THESE TECHNIQUES MAY NOT NECESSARILY ADDRESS ALL ISSUES PERTAINING TO YOUR OPERATIONS. WE, THEREFORE, RECOMMEND THAT YOU CONSULT WITH EXPERTS OF YOUR CHOICE TO DETERMINE WHETHER OR NOT YOUR PROGRAMS ARE ADEQUATE.

PERSONAL PROTECTION INFORMATION

WHERE AIR CONTAMINANTS CAN EXCEED ACCEPTABLE CRITERIA, USE NIOSH/MSHA APPROVED RESPIRATORY PROTECTION EQUIPMENT. RESPIRATORS SHOULD BE SELECTED BASED ON THE FORM AND CONCENTRATION OF CONTAMINANTS IN AIR IN ACCORDANCE WITH OSHA 29 CFR 1910.134 OR OTHER APPLICABLE STANDARDS OR GUIDELINES.
USE GOGGLES IF CONTACT IS LIKELY.
WEAR IMPERVIOUS GLOVES AS REQUIRED TO PREVENT SKIN CONTACT.

SPILL OR LEAK PROCEDURES

ELIMINATE ALL IGNITION SOURCES.
SOAK UP WITH ABSORBENT MATERIAL AND REMOVE TO A CHEMICAL DISPOSAL AREA.
PREVENT ENTRY INTO NATURAL BODIES OF WATER.

WASTE DISPOSAL METHOD

DISPOSE OF ACCORDING TO LOCAL, STATE, AND FEDERAL REQUIREMENTS.
EMPTY CONTAINER: MAY CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEARBY. INCINERATION WILL CAUSE CONTAINER TO BURST VIOLENTLY.

STORAGE PRECAUTIONS

DO NOT STORE AT TEMPERATURES OVER 120 F.

DOT CLASSIFICATION

ORM-D CONSUMER COMMODITY

DISCLAIMER

SAFETY DATA SHEET

Conforms with OSHA Hazard Communication Standard (29 CFR 1910.1200) HazCom 2012

INTEGRA® LIMIT UNCERTAINTY

Product: Honing Oil (STN-OIL)

Revision Date: 11/23/2015

SECTION 1 - IDENTIFICATION

Product Identifier

Product Name: **Honing Oil**

Product Code: **STN-OIL**

Recommended Use of the Chemical and Restrictions on Use

Recommended Use: For use with Arkansas Stones in the sharpening of dental hand instruments.

Restrictions on Use: Use as directed.

Details of the Supplier

Manufactured for: Integra York PA, Inc.
589 Davies Dr.
York, PA 17402 USA
1-866-854-8300

Emergency Phone Number

24-Hour Number: 1-800-535-5053
International: 1-352-323-3500

SECTION 2 – HAZARDS IDENTIFICATION

Classification

Hazard Class	Category
Aspiration Hazard	1

Label Elements

Hazard Symbols(s):

Signal Word(s): Danger

Hazard Statement(s): May be fatal if swallowed and enters airways.

Precautionary Statements:

General

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.

Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor.
Do NOT induce vomiting.

Storage

Store locked up.

Disposal

Dispose of contents/container to disposal recycling center.
Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Other Hazards

None identified.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Wt %
Mineral oil, Petroleum Distillates, Hydrotreated (mild) Light Naphthenic	0064742-53-6	76-100

SECTION 4 – FIRST AID MEASURES

First Aid Measures

Inhalation: Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell or are concerned.

Eye Contact: Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Skin: Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

Ingestion: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.
If more than several mouthfuls have been swallowed, give two glasses of water (16 Oz.).

Notes: High velocity injection of grease under the skin may result in serious injury. If left untreated, the affected area is subject to infection, disfigurement, lack of blood circulation and may require amputation. When dispensed by high-pressure equipment, this material can easily penetrate the skin and leave a bloodless puncture wound. Material injected into a finger can be deposited into the palm of the hand and in rare occasions up to the elbow. Within 24 to 48 hours the patient may experience swelling, discoloration, and throbbing pain in the affected area. Immediate treatment by a surgical specialist is recommended.

Most Important Symptoms and Effects (Acute and Delayed)

Inhalation: None identified.

Eye Contact: None identified.

Ingestion: None identified.

Skin: None identified.

Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physician: None identified.

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable: Dry chemical, foam, carbon dioxide, water spray or fog is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Water or foam may cause frothing. If leak or spill has not ignited, use water spray to cool the containers and to provide protection for personnel attempting to stop the leak.

Unsuitable: Do not us water in a jet.

Specific Hazards Arising from Chemical

Hazardous combustion products may include: Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones.

Protective Equipment and Precautions for Firefighters

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency Procedure:

Immediately turn off or isolate any source of ignition. Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Clean up immediately. Contain spill. Local authorities should be advised immediately if required or if significant spillages cannot be contained.

Ventilate area.

Recommended equipment:

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

Personal Precautions:

Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Will not produce vapors unless heated to temperatures of ~300 °F.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains/surface waters/ groundwater. Retain and dispose of contaminated wash water.

Methods and Material for Containment and Cleaning Up

Wipe up or add suitable absorbent, non-combustible, inert material such as sand, sawdust,etc. to spill area and shovel into appropriate container for disposal.

SECTION 7 – HANDLING AND STORAGE

Precautions for Safe Handling

Handling:

Wash hands after use.
Do not get in eyes, on skin or on clothing.
Do not breathe vapors or mists.
Use good personal hygiene practices.
Eating, drinking and smoking in work areas is prohibited.
Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions:

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Minimum feasible handling temperature should be maintained. Periods of exposure to high temperature should be minimized. Water contamination should be avoided.

Incompatible Materials: Strong oxidizing agents.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Exposure Guidelines:

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m^3)	OSHA Tables Z1, 2, 3
Baseoil - unspecified	500	2000	Z1

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. The use of local ventilation is recommended to control emissions near the source.

Individual Protection Measures

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate NIOSH approved combination of respirator and filter. Select a filter suitable for combined particulate/organic gases and vapours.

Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces.

Skin and Body Protection:

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, and dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over- boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Eye/Face Protection:

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, light amber to dark liquid

Odor: Mild hydrocarbon odor

Odor threshold: Not available.

pH: Not available.

Melting point/freezing point: Not available.

Initial boiling point and boiling range: 413.6 °F, range not available.

Flash point: 305.6 °F

Evaporation rate: Not available.

Flammability (solid, gas): Flash point at or above 200 °F

Upper/lower flammability or explosive limits: Not available.

Vapor pressure: Not available.

Vapor density: 1+

Specific Gravity: 0.896

Water Solubility: Insoluble

Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: 9.15 cSt @ 40°C (104°F)

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable

Chemical stability:

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Avoid heat, sparks, flame, buildup of static electricity, contact with incompatible materials.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Evolves toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones when heated to combustion.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity: No data available.

Skin Corrosion/Irritation: Prolonged or repeated contact may cause skin irritation.

Serious Eye Damage/Irritation: Irritating, but will not permanently injure eye tissue.

Respiratory or Skin Sensitization: No data available.

Aspiration Hazard:
May be fatal if swallowed and enters airways.
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Information Related to Physical, Chemical, and Toxicological Effects

Reproductive Toxicity: No data available.

Germ Cell Mutagenicity: No data available.

Respiratory or Skin Sensitization: No data available.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Specific Target Organ Toxicity - Single Exposure: No data available.

Specific Target Organ Toxicity - Repeated Exposure: No data available.

Skin Corrosion/Irritation: Prolonged or repeated contact may cause skin irritation.

Carcinogenicity:

The highly refined mineral oil contains <3% DMSO extract as measured by IP 346, hence the classification of a carcinogen need not apply.

Numerical Measures of Toxicity

0064742-53-6
]MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) LIGHT NAPHTHENIC

LD50 (Rodent - rat, Oral) : >5000 mg/kg,
Toxic effects : Behavioral - somnolence (general depressed activity).

LD50 (Rodent - rabbit, Administration onto the skin) : >2000 mg/kg,
Toxic effects : Skin and Appendages - primary irritation (after topical exposure)

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:

This product is not toxic to fish but may coat gill structures resulting in suffocation if spilled in shallow, running water. Product may be moderately toxic to amphibians by preventing dermal respiration.
If applied to leaves, this product may kill grasses and small plants by interfering with transpiration and respiration.
This product may cause gastrointestinal distress in birds and mammals through ingestion.

Persistence and degradability:

Is rapidly biodegradable. Biodegradation is possible with 100 to 120 days in aerobic environments at temperatures above 70 °F (21 °C).

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal:

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14 – TRANSPORT INFORMATION

DOT (Ground):

Bulk Shipping Description: Does not apply to bulk oil shipping.

Non-Bulk Shipping Description: Does not apply to non-bulk oil shipping.

Identification Number: Not applicable.

Hazard Classification: Not applicable.

Other: See 49 CFR for additional requirements for descriptions, allowed modes of transport and packaging. For more information concerning spills during transport, consult latest DOT Emergency Response Guidebook for Hazardous Materials Incidents, DOT P5800.3.

IATA (Air): This material is not classified as dangerous under IATA regulations.

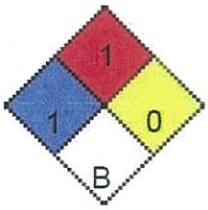
IMDG (Vessel): This material is not classified as dangerous under IMDG regulations.

SECTION 15 – REGULATORY INFORMATION

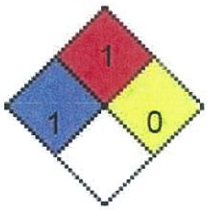
Chemical Name	CAS	% by Weight	Regulation List
Baseoil - unspecified	0064742-53-6	76-100	DSL, SARA 312, TSCA

SECTION 16 – OTHER INFORMATION

HMIS



NFPA



Issue Date: 11/23/2015

Revision Date: 11/23/2015

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ASHLAND

SAFETY DATA SHEET

Revision Date: 05/01/2012
Print Date: 5/3/2012
MSDS Number: 000000139197
Version: 1.2

Carquest® ANTIFREEZE COOLANT
CQ001

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland P.O. Box 2219 Columbus, OH 43216	Regulatory Information Number Telephone Emergency telephone number	1-800-325-3751 614-790-3333 1-800-ASHLAND (1-800-274-5263)
Product name	Carquest® ANTIFREEZE COOLANT	
Product code	CQ001	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, green

WARNING! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE IRRITATION. HARMFUL IF SWALLOWED.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

May cause slight skin irritation. Skin absorption of this material (or a component) may be increased through injured skin.

Ingestion

Swallowing this material may be harmful. Liver, kidney and brain damage in humans has resulted from swallowing lethal or near-lethal amounts of ethylene glycol.

Inhalation

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, lung (for example, asthma-like conditions), Liver, Kidney, Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias., Central nervous system

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Cough, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, involuntary eye movement, pain in the abdomen and lower back, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), lung edema (fluid buildup in the lung tissue), acute kidney failure (sudden slowing or stoppingof urine production), liver damage, Convulsions, coma

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, reproductive effects, kidney damage, liver damage, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:, liver damage, kidney damage

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

Ethylene glycol has caused birth defects in animal studies at high oral doses. However, it did not cause harm to the pregnant animal or to the fetus when applied to the skin of the pregnant animal., This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
ETHYLENE GLYCOL	107-21-1	>=90-<=100%
DIETHYLENE GLYCOL	111-46-6	>=1.5-<5%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Notes to physician

Hazards: Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of

coma. This phase is characterized by tachypnia, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post-exposure and is characterized by renal failure, ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery, to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis. Ingestion or other significant exposure to this material (or a component) may cause metabolic acidosis.

Treatment: This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Dry chemical, Carbon dioxide (CO2), Water spray

Hazardous combustion products

Alcohols, Aldehydes, carbon dioxide and carbon monoxide, ethers, toxic fumes, Hydrocarbons

Precautions for fire-fighting

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

ETHYLENE GLYCOL		**107-21-1**	
ACGIH	Ceiling Limit Value:	100 mg/m3	Aerosol.
DIETHYLENE GLYCOL		**111-46-6**	
WEEL	time weighted average	10 mg/m3	

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect

exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.
Wear resistant gloves (consult your safety equipment supplier).

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Colour	green
Boiling point/boiling range	387.7 °F / 197.6 °C @ 1,013.23 hPa Calculated Phase Transition Liquid/Gas
pH	(+/- 0.5) 10.7
Flash point	> 232 °F / > 111 °C

Lower explosion limit/Upper explosion limit	3.2 %(V) / 15.3 %(V) Calculated Explosive Limit

Vapour pressure	0.122 hPa @ 77 °F / 25 °C Calculated Vapor Pressure
	9.363 lb/gal

10. STABILITY AND REACTIVITY

Stability
Stable.

Conditions to avoid
excessive heat

Incompatible products
Acids, Aldehydes, Alkali metals, Alkaline earth metals, aluminum, Bases, strong alkalis, Strong oxidizing agents, Sulphur compounds

Hazardous decomposition products
carbon dioxide and carbon monoxide, Aldehydes, ketones, Organic acids, Alcohols, ethers, Hydrocarbons

Hazardous reactions
Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

Acute oral toxicity - Product	: no data available

Acute oral toxicity - Components

ETHYLENE GLYCOL	: LD 50: 6,140 mg/kg Species: Rat
DIETHYLENE GLYCOL	: LD 50: 12,565 mg/kg Species: Rat

Acute inhalation toxicity

Acute inhalation toxicity - Product	:	no data available

Acute inhalation toxicity - Components

DIETHYLENE GLYCOL	:	LC Lo: 130 mg/m3 Exposure time: 2 h Species: Mouse

Acute dermal toxicity

Acute dermal toxicity - Product	:	no data available

Acute dermal toxicity - Components

ETHYLENE GLYCOL	:	LD 50: 9,530 mg/kg Species: Rabbit
DIETHYLENE GLYCOL	:	LD 50: 11,890 mg/kg Species: Rabbit

Acute toxicity (other routes of administration)

Acute toxicity (other routes of administration)	:	no data available

12. ECOLOGICAL INFORMATION

Biodegradability

Biodegradability - Product	:	no data available

Biodegradability - Components

DIETHYLENE GLYCOL	:	92 %

Bioaccumulation

Bioaccumulation - Product	:	no data available

Bioaccumulation - Components

ETHYLENE GLYCOL	:	Species: Crayfish (Procambarus) Exposure time: 61 d Concentration: 1,000 mg/l Bioconcentration factor (BCF): 0.27 Method: Flow through

Ecotoxicity effects

Toxicity to fish

Toxicity to fish - Product	:	no data available

Toxicity to fish - Components

ETHYLENE GLYCOL	:	LC 50: 27,540 mg/l Exposure time: 96 h Species: Bluegill (Lepomis macrochirus) Method: Static Remarks: Mortality
		LC 50: 8,050 mg/l Exposure time: 96 h Species: Fathead minnow (Pimephales promelas)

DIETHYLENE GLYCOL	:	LC 50: > 32,000 mg/l Exposure time: 96 h Species: Western mosquitofish (Gambusia affinis) Method: Static Remarks: Mortality

Toxicity to daphnia and other aquatic invertebrates

Toxicity to daphnia and other aquatic invertebrates - Product	:	no data available

Toxicity to daphnia and other aquatic invertebrates - Components

ETHYLENE GLYCOL	:	LC 50: > 10,000 mg/l Exposure time: 48 h Species: Water flea (Daphnia magna) Test Type: static test

DIETHYLENE GLYCOL	:	LC 50: > 10,000 mg/l Exposure time: 24 h Species: Water flea (Daphnia magna) Method: Static Remarks: Mortality

Toxicity to algae

Toxicity to algae - Product	: no data available

Toxicity to bacteria

Toxicity to bacteria - Product	: no data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - ROAD

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

Proposition 65 warnings are not required for this product based on the results of a risk assessment.	

SARA Hazard Classification
SARA 311/312 Classification

Acute Health Hazard

SARA 313 Component(s)

ETHYLENE GLYCOL	95.75 %

New Jersey RTK Label Information

ETHYLENE GLYCOL	107-21-1

DIETHYLENE GLYCOL	111-46-6
WATER	7732-18-5

Pennsylvania RTK Label Information

ETHYLENE GLYCOL	107-21-1
DIETHYLENE GLYCOL	111-46-6

Notification status

US. Toxic Substances Control Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	n (Negative listing)
Japan. Kashin-Hou Law List	n (Negative listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)
China. Inventory of Existing Chemical Substances	y (positive listing)

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	5221 lbs

Reportable quantity-Components

ETHYLENE GLYCOL	107-21-1	5000 lbs

	HMIS	NFPA
Health	1*	1
Flammability	1	1
Physical hazards	0	
Instability		0
Specific Hazard	--	--

16. OTHER INFORMATION