

Material Safety Data Sheet

Issuing Date 28-May-2013

Revision Date 25-Sep-2013

Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Sealed Maintenance-Free Lead Acid Battery

Recommended Use Lead acid battery. Lead Acid (Non-Spillable) Battery.

Supplier Address
The Toro Company
8111 Lyndale Avenue South
Bloomington
MN
8515
US
Phone:952-887-8515
Contact:Eden Allen
Email:eden.allen@toro.com
Contact Phone951-785-3482

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

NOTE: Under normal conditions of battery use, internal components will not present a health hazard. The following information is provided for battery acid and lead exposure that may occur during battery production or container breakage or under extreme heat conditions such as fire

Corrosive

The product causes burns of eyes, skin and mucous membranes

Harmful by inhalation, in contact with skin and if swallowed

Contains a known or suspected reproductive toxin

Appearance Black

Physical State Solid containing liquid.

Odor Neutral

Potential Health Effects

Principle Routes of Exposure

Eye contact. Skin contact.

Acute Toxicity

Eyes

Corrosive to the eyes and may cause severe damage including blindness.

Skin

Causes burns.

Inhalation

Harmful by inhalation.

Ingestion

Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tract.

Chronic Effects

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Lead compounds may be absorbed by ingestion, by inhalation and through the skin. Lead may damage kidney function, the blood forming system and the reproductive system. Avoid repeated exposure. Possible risks of irreversible effects. May cause adverse effects on the bone marrow and blood-forming system. Contains a known or suspected reproductive toxin.

Main Symptoms

Severe exposures can lead to shock, circulatory collapse, and death. Lead poisoning is characterized by a metallic taste in the mouth, loss of appetite indigestion, nausea, vomiting, constipation, sleep disturbances and overall weakness

Aggravated Medical Conditions	Central nervous system. Gastrointestinal tract. Pre-existing eye disorders. Blood disorders. Kidney disorders. Overexposure may cause female and male reproductive disorder(s). Skin disorders. Respiratory disorders. Reproductive toxicity. Gingival Tissue Teeth.
Environmental Hazard	See Section 12 for additional Ecological Information. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Lead	7439-92-1	60-100
Sulfuric acid	7664-93-9	15-40
ABS resin	9003-56-9	5-10
Chopped continuous strand fiberglass (>5 microns in diameter)	65997-17-3	5-10

4. FIRST AID MEASURES

General Advice	This is a battery. In case of rupture:
Eye Contact	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
Skin Contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes.
Inhalation	Move to fresh air in case of accidental inhalation of vapors or decomposition products. Call a physician or Poison Control Center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion	Call a physician or Poison Control Center immediately. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.
Notes to Physician	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not flammable.
Flash Point	Not determined.
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Uniform Fire Code	<ul style="list-style-type: none"> • Corrosive: Acid-Liquid
Hazardous Combustion Products	Hazardous metal fumes and oxides. Sulfur oxides.
Explosion Data	
Sensitivity to Mechanical Impact	No.
Sensitivity to Static Discharge	No.

Specific Hazards Arising from the Chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

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.

NFPA**Health Hazard 3****Flammability 0****Stability 2****Physical and Chemical Hazards -**

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Evacuate personnel to safe areas. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak.

Environmental Precautions

Do not allow material to contaminate ground water system. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Prevent product from entering drains.

Other Information

Refer to protective measures listed in Sections 7 and 8.

7. HANDLING AND STORAGE

Handling

In case of rupture: Wear personal protective equipment. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Lead 7439-92-1	TWA: 0.05 mg/m ³	TWA: 50 µg/m ³ Action Level: 30 µg/m ³ Poison, See 29 CFR 1910.1025	IDLH: 100 mg/m ³ TWA: 0.050 mg/m ³
Sulfuric acid 7664-93-9	TWA: 0.2 mg/m ³ thoracic fraction	TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³	IDLH: 15 mg/m ³ TWA: 1 mg/m ³
Chopped continuous strand fiberglass (>5 microns in diameter) 65997-17-3	TWA: 1 fiber/cc (respirable)	TWA: 1 fiber/cc (respirable)	

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Measures Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection
Skin and Body Protection
Respiratory Protection

Tightly fitting safety goggles.
Wear protective gloves/clothing.
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Black.	Odor	Neutral.
Odor Threshold	No information available	Physical State	Solid containing liquid.
pH	No information available		
Flash Point	No information available.	Autoignition Temperature	No information available
Decomposition Temperature	No information available	Boiling Point/Range	No information available
Melting Point/Range	No information available		
Flammability Limits in Air	No information available	Explosion Limits	No information available
Water Solubility	Immiscible in water	Solubility	No information available
Evaporation Rate	No information available	Vapor Pressure	No data available
Vapor Density	No data available	Partition Coefficient: n-octanol/water	

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	Incompatible with strong acids and bases. Incompatible with oxidizing agents.
Conditions to Avoid	Exposure to air or moisture over prolonged periods.
Hazardous Decomposition Products	Thermal decomposition can lead to release of toxic/corrosive gases and vapors
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Irritation	Causes severe irritation and or burns

Component Information Chronic Toxicity

Chronic Toxicity	Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Lead compounds may be absorbed by ingestion, by inhalation and through the skin. Lead may damage kidney function, the blood forming system and the reproductive system. Avoid repeated exposure. Possible risks of irreversible effects. May cause adverse effects on the bone marrow and blood-forming system. Contains a known or suspected reproductive toxin.
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Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Lead	A3	Group 2A	Reasonably Anticipated	X
Sulfuric acid	A2	Group 1	Known	X
ABS resin		Group 3		
Chopped continuous strand fiberglass (>5 microns in diameter)		Group 3		

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive Toxicity	Product is or contains a chemical which is a known or suspected reproductive hazard.
Developmental Toxicity	Contains ingredients that have suspected developmental hazards Inorganic lead compounds can cause developmental damage.

Target Organ Effects None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Lead		LC50: 0.44 mg/L (96 h semi-static) <i>Cyprinus carpio</i> LC50: 1.17 mg/L (96 h flow-through) <i>Oncorhynchus mykiss</i> LC50: 1.32 mg/L (96 h static) <i>Oncorhynchus mykiss</i>		EC50: 600 µg/L (48 h) water flea
Sulfuric acid		LC50: > 500 mg/L (96 h static) <i>Brachydanio rerio</i>		EC50: 29 mg/L (24 h) <i>Daphnia magna</i>

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Should not be released into the environment.

Contaminated Packaging Do not re-use empty containers.

US EPA Waste Number D002
D008

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Lead - 7439-92-1	(hazardous constituent - no waste number)	Included in waste streams: F035, F037, F038, F039, K002, K003, K005, K046, K048, K049, K051, K052, K061, K062, K064, K065, K066, K069, K086, K100, K176	= 5.0 mg/L regulatory level	

California Hazardous Waste Codes 792

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California EHW	California Carc	California Hazardous Waste	California Waste - Part 2
Lead			Toxic	TCLP (for CA Toxicity): 5.0 mg/L
Sulfuric acid			Toxic Corrosive	

14. TRANSPORT INFORMATION

DOT NOT REGULATED

TDG Not regulated

MEX Not regulated

ICAO Not regulated

14. TRANSPORT INFORMATION

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL Not determined

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Lead	7439-92-1	60-100	0.1
Sulfuric acid	7664-93-9	15-40	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
 Chronic Health Hazard Yes
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Lead		X	X	
Sulfuric acid	1000 lb			X

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Lead	7439-92-1	60-100				

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Lead	10 lb	
Sulfuric acid	1000 lb	1000 lb

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Lead	7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive
Sulfuric acid	7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Lead	X	X	X	X	X
Sulfuric acid	X	X	X	X	X

International Regulations

Mexico - Grade Minimum risk, Grade 0

Chemical Name	Carcinogen Status	Exposure Limits
Lead	A3	Mexico: TWA= 0.15 mg/m ³
Sulfuric acid	A2	Mexico: TWA 1 mg/m ³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2A Very toxic materials

E Corrosive material



Chemical Name	NPRI
Lead	X
Sulfuric acid	X

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

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Revision Note No information available

General Disclaimer

The information provided in this 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

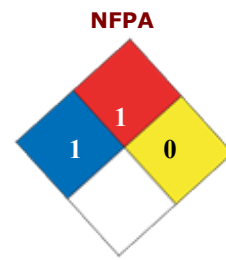
End of Safety Data Sheet



SECTION 1 - IDENTIFICATION

Product Name: Toro Premium Engine Oil SAE 30
Product Code: 179-1081196-55GLDR, 179-1081197-5GLPA
MSDS Manufacturer Number: 1459
Product Use/Restriction: Engine oil
Manufacturer Name: The Toro Company
Address: 8111 Lyndale Ave S
 Bloomington,, Minnesota 55420
 U.S.A.

General Phone Number: 1-952-888-8801
MSDS Creation Date: September 24, 2012
MSDS Revision Date: September 24, 2012
GHS Class: Specific Target Organ Toxicity, Category 3



HMIS

Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	X

SECTION 2 - HAZARD(S) IDENTIFICATION

GHS Pictograms:



Signal Word: WARNING!
GHS Class: Specific Target Organ Toxicity, Category 3

Hazard Statements: May cause respiratory irritation
 May cause drowsiness or dizziness
 May cause long lasting harmful effects to aquatic life

Precautionary Statements: Avoid breathing dust/fume/gas/mist/vapours/spray.
 Use only outdoors or in a well-ventilated area.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Keep only in original container Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Emergency Overview: WARNING! Irritant. Inhalation of vapors or mists from this product may cause headache, nausea and irritation to the eyes, skin and respiratory system.

Route of Exposure:	Eyes. Skin. Inhalation. Ingestion.
Potential Health Effects:	
Eye:	May cause irritation. Overexposure may cause eye watering or discomfort, redness and swelling.
Skin:	May cause skin irritation. May be harmful if absorbed through skin. Prolonged or repeated contact can result in defatting and drying of the skin, which may result in skin irritation and dermatitis (rash).
Inhalation:	Inhalation of vapors, mists or aerosols of the solution can cause respiratory irritation. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Caution should be taken to prevent aerosolization or misting of this product without proper respiratory protection.
Ingestion:	May be harmful if swallowed. May cause vomiting. Do not ingest. Product is expected to be relatively non-toxic unless lung aspiration occurs. Aspiration is not expected with this material due to viscosity (thickness). Should aspiration occur, may lead to chemical pneumonitis which is characterized by pulmonary edema and hemorrhage and may be fatal. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discoloration of the skin. Coughing, choking and gagging are often noted at the time of aspiration. This product has laxative properties and may result in abdominal cramps and diarrhea.
Signs/Symptoms:	Overexposure can cause headaches, dizziness, nausea, and vomiting.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions:	None generally recognized.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	EC Num.
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	No data %	
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	No data %	265-169-7
Proprietary additives	N/A	No data %	
Zinc alkyl dithiophosphate	68649-42-3	0.6 - 1.3 %	272-028-3
Note:	All base oils, including additive carriers, contain		

SECTION 4 - FIRST AID MEASURES

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 with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation:	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Call a POISON CENTER or doctor/physician.

Ingestion: IF SWALLOWED: Rinse mouth. Do not induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell. If spontaneous vomiting occurs keep head below hips to prevent aspiration and monitor for breathing difficulty. Gastric lavage should be performed only by qualified medical personnel. Keep affected person warm and at rest. Seek immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: >200°C (392°F)

Flash Point Method: [ASTM D-92]

Auto Ignition Temperature: Data not available.

Lower Flammable/Explosive Limit: Data not available.

Upper Flammable/Explosive Limit: Data not available.

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

Unusual Fire Hazards: Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. Heavy flammable vapors may settle along ground level. And low spots to create an invisible fire hazard. Vapors can flow along surfaces to distant ignition sources and flash back.

Hazardous Combustion Byproducts: Fires involving this product may release oxides of carbon, phosphorus, nitrogen and sulfur; reactive hydrocarbons and irritating vapors.

NFPA Ratings:

NFPA Health: 1

NFPA Flammability: 1

NFPA Reactivity: 0

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions: Use proper personal protective equipment as listed in section 8. Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.

Environmental Precautions: Keep spills and cleaning runoff out of municipal sewers, storm sewers, ditches, waterways, and open bodies of water.

Methods for containment: Contain spills with an inert absorbent material such as soil, sand or oil dry. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways.

Methods for cleanup: Eliminate all ignition sources including those beyond the immediate spill area. Floor may be slippery; use care to avoid falling. Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. Clean up spills immediately observing precautions in the protective equipment section. Avoid breathing vapor, aerosol or mist. Large spill, once contained, may be picked up using explosion proof.

non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers for disposal. If a large spill occurs notify appropriate authorities.

Water Spill: Remove from surface by skimming or with suitable adsorbents. If a large spill occurs notify appropriate authorities (normally the National Response Center or Coast Guard).

Other Precautions:

CAUTION - If spilled material is cleaned up using a regulated solvent, the resulting waste mixture will be regulated.

SECTION 7 - HANDLING and STORAGE

Handling:

Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.
Vapors can be evolved when material is heated during processing operations.
To reduce potential for static discharge, bond and ground containers when transferring material. Do not transfer to unmarked containers.
Fire extinguishers should be kept readily available. See NFPA 30 and OSHA 1910.106 -- Flammable and Combustible Liquids.
Empty containers retain product residue which may exhibit hazards of material. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.
For handling hot/heated material, wear proper insulated protective equipment to prevent risk of oil burns.

Storage:

Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use.
Ground all metal containers during storage and handling.
Keep away from direct sunlight.
Do not store product in excess of 49°C (120°F).
Do not store containers outside due to temperature fluctuations - risk of drawing water into product through container seals due to cap and fluid expansion and contractions.

Work Practices:

Handle in accordance with good industrial hygiene and safety practices. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Hygiene Practices:

Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls:

Use appropriate engineering control such as process enclosures, explosion-proof local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Eye/Face Protection:

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description:

Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data. Neoprene or nitrile rubber gloves or protective clothing is recommended
If handling hot material use insulated protective equipment.

Hand Protection Description: Chemical-resistant gloves should be worn whenever this material is handled. Neoprene or nitrile rubber gloves or protective clothing is recommended
Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.
For handling hot material, wear impervious insulated gloves and keep all skin areas covered.

Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective: Follow good industrial hygiene practices when handling this material. Consumption of food and drink should be avoided in work areas where product is present.

PPE Pictograms:



EXPOSURE GUIDELINES

Distillates (petroleum), hydrotreated heavy paraffinic :

Guideline ACGIH: TLV-TWA: 5 mg/m³ (Oil mist)

Guideline OSHA: PEL-TWA: 5 mg/m³ (Oil mist)

Distillates (petroleum), solvent-dewaxed heavy paraffinic :

Guideline ACGIH: TLV-TWA: 5 mg/m³ (Oil mist)

Guideline OSHA: PEL-TWA: 5 mg/m³ (Oil mist)

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State:	Liquid.
Color:	Amber to dark brown color.
Odor:	Mild oily odor.
Boiling Point:	Data not available.
Melting Point:	Data not available.
Specific Gravity:	0.8751
Solubility:	Negligible solubility in water.
Vapor Density:	>1 (Air = 1)
Vapor Pressure:	
Percent Volatile:	negligible
Evaporation Rate:	Data not available.
Evaporation Point:	Data not available.
pH:	Data not available.
Viscosity:	11.0 cSt @ 100°C (Typical)
Flash Point:	>200°C (392°F)
Flash Point Method:	[ASTM D-92]

Auto Ignition Temperature: Data not available.

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability: Stable under normal conditions.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions.

Incompatible Materials: Oxidising materials, strong acids, chlorine

Special Decomposition Products: Smoke, carbon monoxide and dioxide, and other aldehydes of incomplete combustion. Oxides of carbon, phosphorus, nitrogen and sulfur; reactive hydrocarbons and irritating vapors.

SECTION 11 - TOXICOLOGICAL INFORMATION

Distillates (petroleum), hydrotreated heavy paraffinic :

RTECS Number: PY8035500

Skin: Administration onto the skin - Rabbit LD50: >5 gm/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Ingestion: Oral - Rat LD50: >15 gm/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Distillates (petroleum), solvent-dewaxed heavy paraffinic :

RTECS Number: TS7750000

Inhalation: Inhalation - Rat LC : >500 mg/m³ [Details of toxic effects not reported other than lethal dose value]
Inhalation - Rat TCl₀ : 43 mg/m³/17W [Cardiac - EKG changes not diagnostic of specified effects Kidney/Ureter/Bladder - Other changes in urine composition Nutritional and Gross Metabolic - Changes in potassium]

Ingestion: Oral - Rat LD50 : 1870 mg/kg [Details of toxic effects not reported other than lethal dose value]
Oral - Mouse LD50 : 2570 mg/kg [Details of toxic effects not reported other than lethal dose value]

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: This material may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.

Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal:

This product unadulterated by other materials may be classified as a nonregulated waste in some areas - but still needs to be disposed of at approved facilities. Waste management should be in full compliance with federal, state, and local laws.

Dispose of in accordance with Local, State, Federal and Provincial regulations. 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.

Most used and non-use oils are incinerated by licensed burner facilities for heat value, or reclaimed by oil recycling services. Look in a local telephone directory or internet for headings under, 'Waste', 'Waste Services', 'Waste Disposal' for companies licensed to handle such material. Additional information can be obtained from local EPA, DNR, Sewer and Land-Fill sites. Unused, packaged fluids may be donated to other companies or charities (fluids MUST be unused).

The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Disposal can only occur in properly permitted facilities. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Disposal of this material must be conducted in compliance with all federal, state, and local regulations.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Not Regulated.

DOT UN Number: Not Regulated.

SECTION 15 - REGULATORY INFORMATION

Risk Phrases: R36/37/38 Irritating to eyes, respiratory system and skin.
R22 Harmful if swallowed.

Safety Phrase: S20 When using do not eat or drink.
S24/25 Avoid contact with skin and eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Distillates (petroleum), hydrotreated heavy paraffinic :

TSCA Inventory Status: Listed

Canada DSL: Listed

Distillates (petroleum), solvent-dewaxed heavy paraffinic :

TSCA Inventory Status: Listed

Canada DSL: Listed

EC Number: 265-169-7

Zinc alkyl dithiophosphate :

TSCA Inventory Status: Listed

Canada DSL: Listed

EC Number: 272-028-3

SECTION 16 - ADDITIONAL INFORMATION

Label Hazard Warning: May cause respiratory irritation
May cause drowsiness or dizziness
May cause long lasting harmful effects to aquatic life

Label Precautions: Avoid breathing dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Keep only in original container Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

HMIS Health Hazard: 1

HMIS Fire Hazard: 1

HMIS Reactivity: 0

HMIS Personal Protection: X

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