



MATERIAL SAFETY DATA SHEET

Hector® Oil (All Grades)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Synonyms:	Steam cylinder oil, ISO VG 180S, 460S, 630S
Formula:	Mixture
Chemical Family:	Hydrocarbon
CAS Number:	Mixture
SAP Code:	1012795; 1012797; 1012799
Product Code:	80710; 80730; 80750
MSDS Number:	US036770
NFPA Ratings:	Health 0, Flammability 1, Reactivity 0
HMIS Ratings:	Flammability 1, Reactivity 0, Health 0
Intended Use(s):	Industrial Worm Gear Oil

The intended use of this product is indicated above, if any additional use is known please contact us at the Technical Information number listed below.

Manufactured By:
Phillips 66 Company
A Division of Phillips Petroleum Company
Bartlesville, Oklahoma 74004

Phone Numbers
Emergency: (918) 661-8118
Technical Information: (800) 766-0050
For Additional MSDSs: (918) 661-5974

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Specification and CAS #	Weight % In Product	ACGIH TLV (TWA)	ACGIH Short Term Exposure Limit	ACGIH Ceiling Limits	ACGIH Skin Designation	OSHA Final PEL (TWA)	OSHA - Final PELs - Ceiling Limits	OSHA - Final PELs - Skin Notation
Solvent refined residuum 64742-01-4	0 to 80	NE	NE	NE	NE	NE	NE	NE
Base stock 64741-88-4	0 to 50	NE	NE	NE	NE	NE	NE	NE
Solvent deasphalted residual oil 64741-95-3	0 to 50	NE	NE	NE	NE	NE	NE	NE
Residual oils (petroleum), hydrotreated 64742-57-0	0 to 50	NE	NE	NE	NE	NE	NE	NE
Inedible lard oil 8016-28-2	0 to 10	NE	NE	NE	NE	NE	NE	NE
Acrylic copolymers 63197-48-8	0 to 1	NE	NE	NE	NE	NE	NE	NE

See Section 8 for additional Exposure Limits.

3. HAZARDS IDENTIFICATION

Emergency Overview

Non-Hazardous. Pressure Injection.

Potential Acute Health Effects

Eye Contact: May cause mild irritation.

Skin Contact: May cause mild irritation with prolonged or repeated contact.

Inhalation: No acute effects expected due to low vapor pressure.

Ingestion: Practically non-toxic (LD50 > 15 gm/kg).

Subchronic and Chronic Effects:

Prolonged and repeated exposure to oil mist poses a risk of pulmonary disease such as lung inflammation. This condition usually causes no symptoms.

Aggravated Medical Conditions: Skin Disorders

4. FIRST AID MEASURES

Eye Contact: Flush eyes with running water. If irritation or adverse symptoms develop, seek medical attention.

Skin Contact: Wash skin with soap and water. If irritation or adverse symptoms develop, seek medical attention.

Inhalation: Remove from exposure. If illness or adverse symptoms develop, seek medical attention.

Ingestion: If illness or adverse symptoms develop, seek medical attention.

Notes To Physician: For injection injuries, immediate medical treatment is required. Physicians may call the emergency number (918) 661-8118.

5. FIRE FIGHTING MEASURES

Flash Point:	480-515F (249-268C)
FP Method:	COC
Ignition Temperature:	730-755F (387-401C) Estimated
Flammable Limits (% by Volume in Air)	
Lower Exposure Limit -	Not Established
Upper Exposure Limit -	Not Established

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO₂), water

Fire Fighting Procedures: Evacuate area and fight fire from a safe distance. Shut off source, if possible. Use NIOSH approved self-contained breathing apparatus and other protective equipment and/or garments described in Section 8 if conditions warrant. Use water spray to cool nearby containers and structures exposed to fire.

Fire and explosion hazards: Can be made to burn (flash point greater than 200F).

6. ACCIDENTAL RELEASE MEASURES

Sweep or gather up material and place in proper container for disposal or recovery.

7. HANDLING AND STORAGE

Avoid contact with eyes, skin or clothing. Avoid breathing vapors, mist, fume or dust. Use with adequate ventilation. Wear protective equipment and/or garments described in Section 8 if exposure conditions warrant. Launder contaminated clothing before reuse. Store in closed container. Store in well-ventilated area.

If pressure injected under the skin, can cause gangrene if not treated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Wear safety glasses.

Respiratory Protection: For concentrations exceeding an applicable exposure limit, use NIOSH approved air purifying respirator equipped with P95 filters, for particulate with time weighted average exposure limit not less than 0.5 mg/M3.

Skin Protection: Use gloves resistant to the material(s) contained in this product.

Ventilation: Use adequate ventilation to control concentrations below applicable exposure limits.

Other Personal Protection: Personal protection information shown in Section 8 is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

Exposure Limits: OSHA PEL and ACGIH TLV for oil mists is 5 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance:	Dark
Odor:	Mild
Odor Threshold (ppm):	Unknown
Boiling Point:	Not Determined
Melting/Freeze Point:	Not Established
Vapor Pressure:	<0.0001 mm Hg @ 68F (20C)
Vapor Density (Air=1):	> 15
Specific Gravity @ 20 C (Water=1):	0.88 - 0.91 @ 60F (16C)
Percent Volatile by Volume:	Negligible
Evaporation Rate (Butyl Acetate=1):	Negligible
Water Solubility:	Negligible
Viscosity:	184-475 cSt @ 104F (40C)

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous Polymerization: Will Not Occur

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents.

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons are formed when burned.

11. TOXICOLOGICAL INFORMATION

Other Health Effects:

Continuous skin contact with used motor oils has caused skin cancer in laboratory animals. Avoid prolonged skin contact with used motor oil.

Pressurized injection of product under the skin can lead to seriously inflamed tissue. If left untreated injury can become gangrenous.

These products may contain petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking or severe hydrotreating. None of the oils require a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

12. ECOLOGICAL INFORMATION

No data at this time.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT Shipping Description:	Not Regulated
IMDG Shipping Description:	Not Regulated
ICAO/IATA Proper Shipping Name:	Not Regulated

15. REGULATORY INFORMATION

EPA SARA 311/312 (Title III Hazard Categories)

Acute Health:	No
Chronic Health:	No
Fire Hazard:	No
Pressure Hazard:	No
Reactivity Hazard:	No

Solvent refined residuum 0 to 80 64742-01-4
Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Base stock 0 to 50 64741-88-4
Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Solvent deasphalted residual oil 0 to 50 64741-95-3
Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Residual oils (petroleum), hydrotreated 0 to 50 64742-57-0

Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Inedible lard oil 0 to 10 8016-28-2

Regulated Substance on TSCA Inventory: Listed
Pennsylvania Right to Know List: Listed
Canada - Domestic Substances List: Listed

Acrylic copolymers 0 to 1 63197-48-8

Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

16. OTHER INFORMATION

Revision Summary: Section 3 - Format Change.

Preparer: Health, Environment and Safety Department

Date Prepared: 05/11/2001

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