



## HX-10

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer Name:** Thermofluid Technologies, Inc.  
3031 Topside Business Park Drive  
Louisville, TN 37777 USA

**Revised:** 06/03/2013

**Prepared by** Missy Simpson  
**CHEMTREC** 1-800-424-9300 or 1-703-527-3887  
**MSDS Contact** 1-865-983-1633  
**Information** [info@redtek.com](mailto:info@redtek.com)

**USES:** Lubricating Grease

**Formula:** HX-10

**HMIS**  
Health: 1 Flammability: 1 Reactivity: 0 Personal Protection: B

**NFPA**  
Health: 1 Flammability: 1 Reactivity: 0 Special: NA

### 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

This product may cause irritation of the eyes, skin, mucous membranes and respiratory tract. May be harmful if swallowed.

#### SIGNAL WORD

CAUTION

#### PRINCIPLE ROUTES OF EXPOSURE

Eyes, skin, and inhalation.

#### EYE CONTACT

Contact with eyes may cause irritation

#### SKIN CONTACT

Repeated or prolonged contact with base product may cause irritation leading to various skin disorders such as dermatitis, oil acne, or folliculitis.

#### INHALATION

Inhalation of vapor (generated at high temperatures only) or oil mist from this product may cause mild irritation of the upper respiratory tract.

**HX-10****INGESTION**

Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

**PHYSICO-CHEMICAL PROPERTIES:**

No hazards resulting from material as supplied.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****HAZARDOUS COMPONENTS**

COMPONENTS	CAS No.	WEIGHT %	OSHA CEILING LIMITS	OSHA TWA (final)	ACGIH CEILING LIMITS	ACGIH EXPOSURE LIMITS	VENDOR EXPOSURE LIMITS
Mineral Oil*	8012-95-1	80-90%		5 mg/m <sup>3</sup>		5 mg/m <sup>3</sup>	None
Sulfurized isobutylene	68511-50-2	1-5%					

\*May include one or more of the following CAS #: 64741-88-4, 64741-89-5, 64741-44-2, 64741-96-4, 64741-97-5, 64742-46-7, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-62-7, 64742-65-0, 72623-84-8, 72623-85-9, 72623-86-0, 72623-87-1, 69029-75-0, 64742-01-4, and 64741-95-3

**4. FIRST AID MEASURES****GENERAL ADVICE**

Show this safety data sheet to the doctor in attendance. Remove contaminated clothing and shoes. Wash contaminated clothing before re-use. Wash off with soap and water. If symptoms persist, call a physician.

**EYE CONTACT**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes

**SKIN CONTACT**

Remove contaminated clothing and shoes. Wash contaminated clothing before re-use. Wash off immediately with plenty of water for at least 15 minutes.

**INHALATION**

Move to fresh air in case of accidental inhalation of vapors. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician if necessary.

**INGESTION**

If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

**NOTES TO PHYSICIAN**

Treat symptomatically.

**MEDICAL CONDITION AGGRAVATED BY EXPOSURE**

Dermatitis.



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**5. FIRE-FIGHTING MEASURES**

**Flash Point (°C):** 240

**Flash Point (°F):** 464

**Flash Point Method:** COC

**FLAMMABLE LIMITS IN AIR – LOWER (%)**

Not determined.

**FLAMMABLE LIMITS IN AIR – UPPER (%)**

Not determined.

**SUITABLE EXTINGUISHING MEDIA**

Use dry chemical, CO<sub>2</sub>, water spray or `alcohol` foam.

**SPECIFIC HAZARDS**

Do not allow material to contaminate ground water system.

**UNUSUAL HAZARDS**

None known.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

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

**SPECIFIC METHODS**

Water mist may be used to cool closed containers.

**6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS**

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not breathe vapor/dust. Use personal protective equipment. Wash thoroughly after handling.

**ENVIRONMENTAL PRECAUTIONS**

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

**METHODS FOR CLEANING UP**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

**7. HANDLING AND STORAGE**

**HANDLING**

**TECHNICAL MEASURES/PRECAUTIONS**

Provide sufficient air exchange and/or exhaust in work rooms.

**SAFE HANDLING ADVICE**

In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe vapors or spray mist. Wear personal protective equipment. Avoid contact with skin and eyes. Wash thoroughly after handling.

**HX-10****STORAGE****TECHNICAL MEASURES/STORAGE CONDITIONS**

Store at room temperature in the original container.

**INCOMPATIBLE PRODUCTS**

Strong oxidizing agents.

**SAFE STORAGE TEMPERATURE**

5 – 35 ° C

**SHELF LIFE**

2 years

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

COMPONENTS	OSHA CEILING LIMITS	OSHA TWA (final)	ACGIH CEILING LIMITS	ACGIH EXPOSURE LIMITS	NIOSH – POCKET GUIDE	VENDOR EXPOSURE LIMITS
Mineral Oil*	None	5 mg/m <sup>3</sup>	None	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	None
Sulfurized isobutylene	None	None	None	None	None	None

**ENGINEERING MEASURES**

Ensure adequate ventilation.

**PERSONAL PROTECTIVE EQUIPMENT****GENERAL**

Eye Wash and Safety Shower.

**RESPIRATORY PROTECTION**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, a NIOSH-certified respirator with organic vapor/P100 filter should be worn.

**EYE PROTECTION**

Safety glasses with side-shields.

**HAND PROTECTION**

Recommended: neoprene, latex, nitrile, butyl rubber and polyethylene type.

**SKIN AND BODY PROTECTION**

Long sleeved clothing.

**HYGIENE MEASURES**

Avoid contact with skin, eyes and clothing.



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### 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	: Semi-solid
COLOR	: Opaque Red
ODOR	: Characteristic
VAPOR DENSITY	: Not determined
VAPOR PRESSURE (kPa)	: Not determined
SOLUBILITY IN WATER	: Insoluble
EVAPORATION RATE	: Not determined
pH	: Not applicable
FLASH POINT (°C)	: 240
FLASH POINT (°F)	: 464
DECOMPOSITION TEMPERATURE (°C)	: Not determined
AUTO-IGNITION TEMPERATURE (°C)	: Not determined
DENSITY @ 25 ° C (g/cc)	: 0.91
BULK DENSITY @ 77 ° F (lb/gal)	: 7.5
PARTITION COEFFICIENT (n-octanol/water)	: Not determined
EXPLOSIVE LIMITS	
UPPER LIMIT	: No data available
LOWER LIMIT	: No data available

### 10. STABILITY AND REACTIVITY

#### STABILITY

Stable under recommended storage conditions.

#### CONDITIONS TO AVOID

None known.

#### MATERIALS TO AVOID

Strong oxidizing agents.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Carbon oxides, Sulphur oxides, Nitrogen oxides (nox), Smoke.

#### HAZARDOUS POLYMERIZATION

Not applicable.

### 11. TOXICOLOGICAL INFORMATION

#### MINERAL OIL INFORMATION

Any product containing a substance for which OSHA has established a permissible exposure limit (PEL) is considered hazardous. OSHA has established a PEL of 5 mg/m<sup>3</sup> for worker exposure to air borne mists of mineral oils. Therefore, the presence of mineral oils brings this product within the provisions of the OSHA Hazard Communication Standard where the



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PEL reaches or exceeds 5 mg/m³. Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

No toxicological information is available on the product. Data obtained on components are summarized below.

Table with 5 columns: COMPONENTS, IARC CARCINOGENS, NTP, OSHA - Select Carcinogens, ACUTE TOXICITY. Rows include Mineral Oil\* and Sulfurized isobutylene.

12. ECOLOGICAL INFORMATION

PERSISTENCE AND DEGRADABILITY

No information available

MOBILITY

No data available

BIOACCUMULATION

Not available

ECOTOXICITY EFFECTS

No data available

AQUATIC TOXICITY

Not determined

COMPONENT INFORMATION:

Table with 4 columns: COMPONENTS, ECOTOXICITY - Fish Species Data, ECOTOXICITY - Freshwater Algae Data, ECOTOXICITY - Water Flea Data. Rows include Mineral Oil\* and Sulfurized isobutylene.

13. DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES/UNUSED PRODUCTS

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.



# MATERIAL SAFETY DATA SHEET

Version: 2.1

02/03/14

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### CONTAMINATED PACKAGING

Do not re-use empty containers.

### METHODS FOR CLEANING UP

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

## 14. TRANSPORT INFORMATION

### U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME Not Regulated

### TDG (CANADA)

PROPER SHIPPING NAME Not Regulated

### IMDG/IMO

PROPER SHIPPING NAME Not Regulated

### IATA/ICAO

PROPER SHIPPING NAME Not Regulated

## 15. REGULATORY INFORMATION

### CANADAIAN REGULATIONS

#### CANADA – WHMIS CLASSIFICATION INFORMATION

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

#### CANADIAN PRODUCT CLASSIFICATION

None Required

### COMPONENT CLASSIFICATION DATA

COMPONENTS	WHMIS HAZARD CLASS	CEPA SCHEDULE I	CHALLENGE SUBSTANCES
Mineral Oil*	1% Uncontrolled product according to WHMIS classification criteria.	Not listed	Not listed
Sulfurized isobutylene	None	Not listed	Not listed



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### U.S. FEDERAL REGULATIONS

#### OSHA HAZARD COMMUNICATION STANDARD

This product is considered to be hazardous under the OSHA Hazard Communication Standard.

### CERCLA/SARA INFORMATION

**SARA (311, 312) HAZARD CLASS** : This product possesses the following SARA Hazard Categories

**IMMEDIATE HEALTH (ACUTE)** : Yes

**DELAYED HEALTH (CHRONIC)** : No

**FLAMMABILITY** : No

**PRESSURE** : No

**REACTIVITY** : No

COMPONENTS	HAZARDOUS SUBSTANCES AND RQs	EXTREMELY HAZARDOUS SUBSTANCES AND TPQs	SARA 313 EMISSION REPORTING
Mineral Oil*	Not listed	Not listed	Not listed
Sulfurized isobutylene	Not listed	Not listed	Not listed

### CERCLA/SARA 313 EMISSION REPORTING

This product contains no components subject to the reporting requirements of SARA 313

### CLEAN AIR AND CLEAN WATER ACTS

COMPONENTS	HAZARDOUS AIR POLLUTANTS	CWA – HAZARDOUS SUBSTANCES	CWA – TOXIC POLLUTANTS	CWA – PRIMARY POLLUTANTS
Mineral Oil*	Not listed	Not listed	Not listed	Not listed
Sulfurized isobutylene	Not listed	Not listed	Not listed	Not listed

### RCRA STATUS

Not regulated

### U.S. STATE REGULATIONS (RTK):

COMPONENTS	CALIFORNIA PROPOSITION 65	PARTK	MI CRITICAL MATERIALS	NJRTK	MARTK
Mineral Oil*	Not listed	Present	Not Listed	1437	Present
Sulfurized isobutylene	Not listed	Not listed	Not Listed	Not listed	Not listed

### CALIFORNIA PROPOSITION 65 STATUS

May contain trace amounts of listed chemicals: naphthalene.





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### INVENTORY STATUS

#### UNITED STATES TSCA – SECT. 8(b) INVENTORY

This product complies with TSCA

#### CANADA DSL/NDL INVENTORY LIST

This product complies with DSL

## 16. OTHER INFORMATION

### SOURCES OF KEY DATA USED TO COMPILE THE DATA SHEET

Material safety data sheets of the ingredients.

### HMIS CLASSIFICATION

Health: 1                      Flammability: 1                      Reactivity: 0                      Personal Protection: B

### HMIS USE DILUTION

Health: --                      Flammability: --                      Reactivity: --                      Personal Protection: --

### NFPA RATING

Health: 1                      Flammability: 1                      Reactivity: 0                      Special: NA

\* Indicates possible chronic health effect.

Personal protection recommendations should be reviewed by purchasers. Workplace conditions are important factors in specifying adequate protection.

### REFERENCES:

RESPONSIBLE NAME:                      PRODUCT SAFETY – Missy Simpson  
FOR COPY OF (M)SDS:                      Internet: [www.redtek.com](http://www.redtek.com)                      Phone: 1-865-983-1633

### DISCLAIMER

This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is believed to be accurate. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. Thermofluid Technologies, Inc. assumes no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of Thermofluid Technologies, Inc.

End of Safety Data Sheet