



# MATERIAL SAFETY DATA SHEET

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME** UNISOURCE® REC TFO

**CHEMICAL FAMILY** Petroleum Hydrocarbon

**COMPANY IDENTIFICATION** UniSource Energy, Inc.  
40 Shuman Blvd, Suite 290  
Naperville, IL 60563  
Phone: 630-470-6030 Fax: 630-470-6031

**EMERGENCY TELEPHONE NUMBERS** UniSource Energy, Inc. CHEMTREC  
1-800-444-5510 1-800-424-9300

## SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

CAS Number	Material or Component	% By Weight
64742-53-6	HYDROTREATED LIGHT PETROLEUM NAPHTHENIC DISTILLATE	> 99
128-37-0	2,6-DI-t-BUTYL-p-CRESOL (BHT)	< 1

## SECTION 3 HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

KEEP AWAY FROM SOURCES OF IGNITION.  
OVEREXPOSURE MAY CAUSE IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.  
MAY BE HARMFUL IF SWALLOWED.

**ROUTES OF ENTRY:** Absorbed through dermal contact, eye contact, inhalation, ingestion.

### POTENTIAL ACUTE HEALTH EFFECTS

**Eyes:** May cause eye irritation with tearing, redness, stinging, blurred vision.  
**Skin:** Prolonged unprotected exposure will cause skin irritation.  
**Inhalation:** Respiratory tract irritation may occur if exposed to fumes or mist.  
**Ingestion:** Swallowing this material may be harmful. May cause irritation of the mouth, throat and gastrointestinal tract. Aspiration into lungs may result in chemical pneumonia and lung damage.

### POTENTIAL CHRONIC HEALTH EFFECTS

#### Carcinogenic Effects

Not listed by NTP, OSHA or ACGIH as carcinogenic  
IARC: This product is classified by the International Agency for Research on Cancer as Group 3 ("not classifiable as to their carcinogenicity to humans") based on inadequate human or animal evidence.

### MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE

Personnel with pre-existing skin disorders should avoid contact with this product.  
Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. Exposure to liquids, vapors, mists or fumes should be minimized.

(See Toxicological Information – Section 11)

## SECTION 4 FIRST AID MEASURES

**EYE CONTACT:** Flush thoroughly with water while holding eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. If irritation occurs, get immediate medical attention.

**SKIN CONTACT:** Wash contact areas immediately with soap and water. Remove contaminated clothing and place in closed container for storage until laundered or discarded. Thoroughly clean contaminated clothing before reuse.

**INHALATION:** Allow the victim to rest in a well-ventilated area. Seek medical attention.

**INGESTION:** DO NOT induce vomiting; aspiration into lungs may cause chemical pneumonia and lung damage. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Seek immediate medical attention.



**NOTES TO PHYSICIAN:** If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Induction of emesis is not recommended. Treat appropriately.

## SECTION 5 FIRE FIGHTING MEASURES

**FLAMMABILITY CLASS:** IIIB Combustible

**FLASH POINT:** > 116°C (> 240°F) (COC ASTM D92)

**FLAMMABLE LIMITS:** Not available

**PRODUCTS OF COMBUSTION:** May produce incomplete combustion products (CO, CO<sub>2</sub>).

### FIRE AND EXPLOSION HAZARDS

If heated above its flash point, product will release flammable vapors which can burn in the open or be explosive in confined spaces if exposed to ignition source. Mists or sprays may be flammable below normal flash point. Keep away from extreme heat or open flame.

### EXTINGUISHING MEDIA

Use water fog or spray, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

### FIRE FIGHTING INSTRUCTIONS

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. Use water spray to cool fire exposed surfaces and to protect personnel.

**Small Fire:** Use DRY chemical powder, halon, and CO<sub>2</sub>.

**Large Fire:** Use water spray, fog or foam. DO NOT use water jet.

### PROTECTIVE CLOTHING (FIRE)

Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear (Bunker gear).

### NFPA HAZARD ID

Health: 1      Fire Hazard: 1      Reactivity: 0      Special Notice: None

### HMIS HAZARD ID

Health: 1      Flammability: 1      Physical Hazard: 0      Personal Protection: None

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### NOTIFICATION PROCEDURES

U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. Report spills to local authorities and/or the National Response Center at (800) 424-8802 as appropriate or required.

### PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding area. Eliminate all (potential) sources of ignition in the vicinity of the spill or released vapor. Handling equipment must be grounded to prevent sparking.

### SPILL MANAGEMENT

**Land Spill:** Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if it can be done without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

**Water Spill:** Stop leak if it can be done without risk. Confine the spill immediately with booms. Warn other vessels. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

### ENVIRONMENTAL PRECAUTIONS

**Large Spills:** Contain spill and safely stop the flow, warning personnel to stay away. Eliminate all sources of ignition and ventilate. Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. Water spray may reduce vapor, but may not prevent ignition in closed spaces. Recover with appropriate pumping equipment or with suitable absorbent.

**Small Spills:** Absorb with an inert material such as clay or sand. Place in appropriate non-leaking container. Seal tightly for proper disposal.

**Note:** Local regulations may prescribe or limit action to be taken.



## SECTION 7 HANDLING AND STORAGE

### HANDLING

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Keep away from incompatibles such as oxidizing agents. Do not attempt to refill or clean containers since residue is difficult to remove. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Do not eat, drink or smoke in areas of use or storage. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately, showing them the container or the label. Avoid contact with skin and eyes. Use good personal hygiene practices. Wash thoroughly after handling this product.

### STORAGE

Combustible materials should be stored in a separate labeled safety storage cabinet or room. Keep away from heat and all possible sources of ignition. Keep container tightly closed and dry. Keep in a cool and well-ventilated area. Ground all equipment containing material. Empty containers may contain material residue; do not reuse without adequate precautions. Do not eat, drink or smoke in areas of use or storage. All efforts should be made to prevent any leaks or spills. Storage tanks containing this product should be engineered to prevent contact with water resources, as this material could contaminate the water resources. Surface spills can reach groundwater through porous soil or cracked surfaces. The storage tanks should be monitored regularly for leaks. Where spills or leaks are possible, a comprehensive response plan should be developed and implemented.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### ENGINEERING CONTROLS

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### PERSONAL PROTECTION

**Eyes:** Safety glasses with side shields  
**Body:** Flame retardant clothing covering the entire body  
**Respiratory:** Use a MSHA/NIOSH approved respirator or equivalent at high concentrations.  
**Hands:** Chemical resistant gloves if contact is possible  
**Feet:** Safety slip-proof shoes in areas where spills or leaks can occur

### PROTECTIVE CLOTHING

Splash goggles, Full suit, Vapor respirator, Boots, Gloves  
 A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### THRESHOLD LIMIT VALUE

The best practice is to maintain concentrations of all atmospheric contaminants as low as practical using engineering controls and work rules. Appropriate personal protective equipment may be used for additional protection of the worker from exposure. For application of TLV's or PEL's consult an industrial hygienist.

Material or Component	Exposure Limits
HYDROTREATED LIGHT PETROLEUM NAPHTHENIC DISTILLATE	ACGIH TLV & OSHA PEL 5 mg/m <sup>3</sup> 8 hours NIOSH TWA None 10 hours
2,6-DI-t-BUTYL-p-CRESOL (BHT)	ACGIH TLV: 5 mg/m <sup>3</sup> 8 hrs OSHA PEL: 2 mg/m <sup>3</sup> 8 hrs NIOSH TWA: 10 mg/m <sup>3</sup> 10 hrs

Consult local authorities for acceptable exposure limits.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE AND APPEARANCE:** Liquid

**ODOR:** Petroleum odor

**COLOR:** Straw color

**BOILING POINT:** IBP 293°C ( 560°F)

**SPECIFIC GRAVITY:** 0.88 (Water = 1)



**VAPOR PRESSURE:** < 0.01 mm Hg @ 100°F  
**VAPOR DENSITY:** 4 (Air = 1)  
**EVAPORATION RATE:** < 1 (Ethyl ether = 1)  
**SOLUBILITY IN WATER:** Negligible  
**PERCENT VOLATILITY:** 0

<b>SECTION 10</b>	<b>STABILITY AND REACTIVITY</b>
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**STABILITY AND REACTIVITY:** The product is stable under normal conditions.  
**CONDITIONS TO AVOID:** Sources of ignition  
**INCOMPATIBILITY WITH VARIOUS SUBSTANCES:** Reactive/ incompatible with strong oxidizing agents  
**HAZARDOUS DECOMPOSITION PRODUCTS:** May produce incomplete combustion products (COx, NOx, SOx).  
**HAZARDOUS POLYMERIZATION:** No

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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**ROUTES OF EXPOSURE:** Inhalation, ingestion, skin, eye contact  
**ACUTE AND CHRONIC TOXICITY**  
Product has a low order of acute and dermal toxicity.  
**OTHER TOXIC EFFECTS ON HUMANS**  
May be irritating to eyes, skin and respiratory system. Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**TOXICOLOGICAL DATA**  
**Carcinogenic Effects**  
Not listed by NTP, OSHA or ACGIH as carcinogenic  
IARC: This product is classified by the International Agency for Research on Cancer as Group 3 ("not classifiable as to their carcinogenicity to humans") based on inadequate human or animal evidence.

(See Section 3 – Hazards Identification)

<b>SECTION 12</b>	<b>ECOLOGICAL INFORMATION</b>
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**ECOTOXICITY:** Not available  
**MOBILITY:** Constituents are expected to partition between air, water, and soil.  
**SPECIAL REMARKS ON THE PRODUCTS OF BIODEGRADATION:** Constituents are expected to biodegrade.

<b>SECTION 13</b>	<b>DISPOSAL CONSIDERATIONS</b>
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**WASTE DISPOSAL**  
Disposal can occur only in properly permitted facilities in accordance with federal, state, and local regulations.  
Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete. This material, when discarded or disposed of, may be a hazardous waste according to Federal Regulations (40 CFR 261). Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the material to characterize and determine, at the time of disposal, whether the material is a hazardous waste subject. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authorities.

**Consult your local or regional authorities.**

<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b>
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**U.S. DOT CLASSIFICATION FOR BULK SHIPMENTS:** Not regulated

**SECTION 15****REGULATORY INFORMATION****U.S. FEDERAL REGULATIONS**

**TSCA:** All components are listed or exempted.

**CERCLA:** This material, as supplied, contains no hazardous substances regulated under the Comprehensive Environmental Response Compensation and Liability Act.

**SARA 302/304/311/313:** Not listed

**OSHA:** 29 CFR 1910.1200 (Hazard Communication) required

**INTERNATIONAL REGULATIONS****CANADA**

**WHMIS:** Not controlled

**STATE REGULATIONS**

**Massachusetts:** Mineral oil, heavy naphthenic petroleum distillates appears on one or more of the hazardous substances lists.

**SECTION 16****OTHER INFORMATION****REVISIONS**

This Material Safety Data Sheet (MSDS) has been created to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-1998).

**DATE PREPARED: MARCH 2011****UNISOURCE® REC TFO**

The information presented herein has been compiled from sources considered to be dependable and is accurate as of the date of preparation of this Material Safety Data Sheet. However, Seller does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. In addition, no responsibility can be assumed by the Seller for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the material. Seller assumes no responsibility for injury to Buyer or to third persons or any damage to any property. Buyer assumes all such risks.