



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: SUN HEAT TRANSFER 21

Manufacturer Information:

Sunoco, Inc. (R&M)
1735 Market Street LL

Philadelphia, Pennsylvania, 19103-7583

Product Use:

Heat transfer oil

Emergency Phone Numbers:

Chemtrec (800) 424-9300
Sunoco Inc. (800) 964-8861

Information:

Product Safety Information (610) 859-1120

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount (Vol%)
SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL	64741-88-4	85 - 100
SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5	0 - 15

EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)

CAS No.	Governing Body	Exposure Limits

3. HAZARDS IDENTIFICATION

- EMERGENCY OVERVIEW**

Poses little or no immediate hazard.

Hazards Ratings:

Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme

	<u>Health</u>	<u>Fire</u>	<u>Reactivity</u>	<u>PPI</u>
NFPA	0	1	0	
HMIS	0	1	0	X

- POTENTIAL HEALTH EFFECTS**

▪ **PRE-EXISTING MEDICAL CONDITIONS**

The following diseases or disorders may be aggravated by exposure to this product: skin,

▪ **INHALATION**

No acute effects expected.

LC50 (mg/l): no data

LC50 (mg/m3): no data

LC50 (ppm): no data

▪ **SKIN**

Practically non-toxic if absorbed through the skin. May cause minimal skin irritation.

Draize Skin Score: 3.75 Out of 8.0

LD50 (mg/kg): no data

▪ **EYES**

No eye effect expected.

▪ **INGESTION**

Practically non-toxic if ingested.

LD50 (g/kg): > 25

4. FIRST AID MEASURES

• **INHALATION**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get medical attention.

• **SKIN**

Wash with soap and water for 20 minutes. Get medical attention if irritation develops or persists. Wash clothing before reuse.

• **EYES**

Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

• **INGESTION**

Material is practically non-toxic. Induction of vomiting is not required. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

• **EXTINGUISHING MEDIA**

Water spray; Regular foam; Dry chemical; Carbon dioxide;

• **FIRE FIGHTING INSTRUCTIONS**

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

FLAMMABLE PROPERTIES

	Typical	Minimum	Maximum	Text Result	Units	Method
Flash Point		410			F	COC
Autoignition Temperature				680 ESTIMATED	F	N/A
Lower Explosion Limit				no data	%	N/A
Upper Explosion Limit				no data	%	N/A

6. ACCIDENTAL RELEASE MEASURES

Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency

(EPA) and appropriate state agencies, if required. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Vacuum or sweep up material and place in a disposal container.

7. HANDLING AND STORAGE

- **HANDLING**

Wash thoroughly after handling.

- **STORAGE**

NFPA class IIIB storage. Flash point is greater than 200 degrees F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult With a Health and Safety Professional for Specific Selections

- **ENGINEERING CONTROLS**

Use with adequate ventilation. Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the exposure limit.

- **PERSONAL PROTECTION**

- **EYE PROTECTION**

Splash proof chemical goggles are recommended to protect against the splash of product.

- **GLOVES or HAND PROTECTION**

Protective gloves are recommended when prolonged skin contact cannot be avoided. The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Polyvinyl chloride (PVC); Neoprene; Nitrile; Polyvinyl alcohol; Viton;

- **RESPIRATORY PROTECTION**

Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Respiratory protection is not usually needed unless product is heated or misted.. Half-mask air purifying respirator with dust / mist filters or HEPA filter cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with dust / mist filters or HEPA filter cartridges is acceptable for exposures to fifty (50) times the exposure limit.

- **OTHER**

Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required. The following materials are acceptable for use as protective clothing: Polyvinyl alcohol (PVA); Polyvinyl chloride (PVC); Neoprene; Nitrile; Viton; Polyurethane; Remove contaminated clothing and wash before reuse. For non-fire emergencies, respiratory protection may be necessary and wear appropriate protective clothing to avoid contact with material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Property	Typical	Units	Text Result	Reference
Appearance		N/A	COLORLESS OIL	
Boiling Point		F	no data	
Bulk Density		lb/gal	no data	
Melting Point		F	no data	
Molecular Weight		g/mole	no data	
Octanol/Water Coefficient		N/A	no data	
pH		N/A	no data	
Specific Gravity	0.86	N/A		
Solubility In Water		wt %	NIL	
Odor		N/A	LITTLE ODOR	
Odor Threshold		ppm	no data	

Vapor Pressure		mmHg	<0.0001	@ 20 C
Viscosity (F)	205	SUS		@ 100 F
Viscosity (C)	39.9	CsT		@ 40 C
% Volatile		wt %	NIL	

10. STABILITY AND REACTIVITY

- **STABILITY**
Stable
- **CONDITIONS TO AVOID**
none identified
- **INCOMPATIBILITY**
Strong oxidizers
- **HAZARDOUS DECOMPOSITION PRODUCTS**
Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**
Will not polymerize.

11. ECOLOGICAL INFORMATION

No data available

12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. This material is not a RCRA hazardous waste, if not contaminated. If material has been "used", RCRA criteria (ignitability, reactivity, corrosivity and toxicity) must be determined. Do not flush material to drain or storm sewer. Contract to authorized disposal service.

13. TRANSPORT INFORMATION

<u>Governing Body</u>	<u>Mode</u>	<u>Proper Shipping Name</u>
IATA	Air	Not Determined
IMDG	Marine	No Data Available
DOT	Ground	Petroleum Lubricating Oil

<u>Governing Body</u>	<u>Mode</u>	<u>Hazard Class</u>	<u>UN/NA No.</u>	<u>Label</u>
IATA	Air	Not Determined		
IMDG	Marine			
DOT	Ground	N/A	N/A	Not Regulated

14. REGULATORY INFORMATION

<u>Regulatory List</u>	<u>Component</u>	<u>CAS No.</u>
Inventory - Australia (AICS)	SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL	64741-88-4
Inventory - Australia (AICS)	SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5
Inventory - Canada - Domestic Substances List	SEVERELY SOLVENT REFINED HEAVY	64741-88-4

Inventory - Canada - Domestic Substances List	PARAFFINIC PETROLEUM OIL SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5
Inventory - China	SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL	64741-88-4
Inventory - China	SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5
Inventory - European EINECS Inventory	SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL	64741-88-4
Inventory - European EINECS Inventory	SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5
Inventory - Japan - (ENCS)	SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5
Inventory - Korea - Existing and Evaluated	SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL	64741-88-4
Inventory - Korea - Existing and Evaluated	SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5
Inventory - Philippines Inventory (PICCS)	SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL	64741-88-4
Inventory - Philippines Inventory (PICCS)	SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5
Inventory - TSCA - Sect. 8(b) Inventory	SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL	64741-88-4
Inventory - TSCA - Sect. 8(b) Inventory	SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5
Massachusetts - Right To Know List	SEVERELY SOLVENT REFINED LIGHT PARAFFINIC PETROLEUM OIL	64741-89-5

Title III Classifications Sections 311,312:

- Acute: **NO**
- Chronic: **NO**
- Fire: **NO**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

15. OTHER INFORMATION

Limits for the product- 5mg/m3, Oil Mist Limit, (OSHA PEL/ACGIH TLV)