

# Material Safety Data Sheet

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Version 7

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product name** THERMINOL® XP

**Product code** 90048

**Recommended Use** Heat transfer fluids

**Manufacturer** Solutia Inc.  
A subsidiary of Eastman Chemical Company  
575 Maryville Centre Drive  
St. Louis, Missouri 63141 U.S.A.  
Telephone: +1-314-674-6661

**Emergency Phone Number** Chemtrec: 1-800-424-9300 - Direct Dial:1-703-527-3887

## Section 2: HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

No significant adverse health effects

**Appearance** Oily Clear**Physical State** Liquid**Odor** Odorless

### Potential health effects

#### Acute toxicity

**Eyes**

No more than slightly irritating. Not expected to produce significant adverse health effects when recommended use instructions are followed.

**Skin**

No more than slightly irritating. No more than slightly toxic. Not expected to produce significant adverse health effects when recommended use instructions are followed.

**Inhalation**

No more than slightly toxic. Not expected to produce significant adverse health effects when recommended use instructions are followed.

**Ingestion**

No more than slightly toxic. Not expected to produce significant adverse health effects when recommended use instructions are followed.

**Chronic effects**

No known effect.

**Aggravated Medical Conditions**

None known.

**Environmental hazard**

See Section 12: ECOLOGICAL INFORMATION.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
White mineral oil (petroleum)	8042-47-5	100

## Section 4: FIRST AID MEASURES

**General advice**

When symptoms persist or in all cases of doubt seek medical advice. If unconscious, place in recovery position and get medical attention immediately. Show this material safety data sheet to the doctor in attendance.

<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician. Keep victim warm and quiet. Loosen tight clothing such as a collar, tie, belt or waistband. Maintain an open airway. Persons who have inhaled vapors or smoke fumes have to be put under medical observation for at least 48 hours, due to the delayed appearance of poisoning.
<b>Ingestion</b>	If swallowed, rinse mouth with water (only if the person is conscious). Remove victim to fresh air and keep at rest in a position comfortable for breathing. Loosen tight clothing such as a collar, tie, belt or waistband. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed to do so by a physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Maintain an open airway. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.
<b>Notes to physician</b>	Treat symptomatically. Persons who have inhaled vapors or smoke fumes have to be put under medical observation for at least 48 hours, due to the delayed appearance of poisoning.

### SECTION 5: Firefighting measures

<b>Flammable properties</b>	This product is not classified as a fire-resistant heat transfer fluid. Precautions to avoid sources of ignitions should be taken.
<b>Flash point</b>	199 °C / 390 °F
<b>Method</b>	ASTM D-92
<b>Suitable extinguishing media</b>	Water spray, Foam, Dry powder, Carbon dioxide (CO <sub>2</sub> )
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	None
<b>Sensitivity to static discharge</b>	None
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### Section 6: ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	No action shall be taken involving any personal risk or without suitable training. Do not touch or walk through spilled material. If spilled, take caution, as material can cause surfaces to become very slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Clean up spill immediately. Try to prevent the material from entering drains or water courses.
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material. Collect in closed and suitable containers for disposal.

### Section 7: HANDLING AND STORAGE

**Advice on safe handling** Avoid contact with skin, eyes and clothing. Use in well ventilated areas. Wear personal protective equipment. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

**Technical measures/Storage conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from contact with oxidizing materials. Keep in properly labeled containers. Use appropriate containment to avoid environmental contamination. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with local regulations.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
White mineral oil (petroleum)	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	Not available

**Engineering measures** Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Apply technical measures to comply with the occupational exposure limits. If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

### Personal protective equipment

**Eye/face protection**

Safety glasses with side-shields

**Skin and body protection**

Wear suitable protective clothing

**Respiratory protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	
<b>Appearance</b>	Oily Clear	
<b>Odor</b>	Odorless	
<b>Color</b>	Colorless	
<b>Odor threshold</b>	No information available	
<b>Property</b>	<b>Values</b>	<b>Remarks • Methods</b>
<b>pH</b>	No information available	Not applicable
<b>Melting point/freezing point</b>	-29 °C / -20 °F	Pour point
<b>Boiling point/boiling range</b>	358 °C / 676 °F	
<b>Flash point</b>	199 °C / 390 °F	ASTM D-92
<b>Evaporation Rate</b>	No information available	
<b>Specific gravity</b>	0.882	15 °C
<b>Flammability (solid, gas)</b>	Not applicable	
<b>Flammability Limits in Air</b>		
<b>Upper flammability limit</b>	No information available	
<b>Lower flammability limit</b>	No information available	
<b>Vapor pressure</b>	< 0.007 hPa	20 °C
<b>Vapor density</b>	No information available	
<b>Water solubility</b>	Negligible	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient: n-octanol/water</b>	> 1 000 000	
<b>Autoignition temperature</b>	346 °C / 655 °F	ASTM E-659
<b>Decomposition temperature</b>	No information available	
<b>Viscosity, kinematic</b>	23.7 mm <sup>2</sup> /s 4.06 mm <sup>2</sup> /s	40 °C 100 °C
<b>Viscosity, dynamic</b>	27 - 30 mPa.s 24 - 27 mPa.s	38 °C 40 °C
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

### 9.2 OTHER INFORMATION

<b>Density</b>	875 kg/m <sup>3</sup>	25 °C
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## Section 10: STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage and handling conditions (see section 7).
<b>Incompatible products</b>	Strong oxidizing agents.
<b>Conditions to avoid</b>	This product is not classified as a fire-resistant heat transfer fluid. Precautions to avoid sources of ignitions should be taken. Heating in air
<b>Hazardous decomposition products</b>	None known based on information supplied.

**Hazardous polymerization** Hazardous polymerization does not occur.

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information.

**Inhalation** No more than slightly toxic. Not expected to produce significant adverse health effects when recommended use instructions are followed.

**Eyes** No more than slightly irritating. Not expected to produce significant adverse health effects when recommended use instructions are followed.

**Skin** No more than slightly irritating. No more than slightly toxic. Not expected to produce significant adverse health effects when recommended use instructions are followed.

**Ingestion** No more than slightly toxic. Not expected to produce significant adverse health effects when recommended use instructions are followed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
White mineral oil (petroleum)	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 5 ml/m <sup>3</sup>

### Chronic Toxicity

**Chronic Toxicity** No known effect.

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Germ cell mutagenicity** Not mutagenic (in vitro, in vivo).

**Reproductive toxicity** No known effect.

**Developmental Toxicity** OECD Test No. 414: Prenatal Development Toxicity Study: No known effect.

**Target organ effects** None known.

## Section 12: ECOLOGICAL INFORMATION

### Acute aquatic toxicity

*Note* The product itself has not been tested.

<u>Property</u>	<u>Result</u>	<u>Species</u>
96-hour LC50 - Fish	10000 mg/l	Lepomis macrochirus (Bluegill sunfish)
48-hour EC50 - Aquatic invertebrates	No data available	No information available
72-hour EC50 - Algae/aquatic plants	No data available	No information available

### Ecotoxicity

**Bioaccumulation** Product has a high potential to bioconcentrate.

**Mobility** The product is insoluble and floats on water. The product evaporates slowly. In water, the majority of components of this product will be absorbed on sediments. Adsorbs on soil.

Chemical name	log Pow
White mineral oil (petroleum)	> 6

### Section 13: DISPOSAL CONSIDERATIONS

<b>Waste disposal methods</b>	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Dispose of in accordance with federal, state, and local regulations.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>OTHER INFORMATION</b>	This product meets the criteria for synthetic used oil under the U.S. EPA Standards for the Management of Used Oil (40 CFR 279). Those standards govern recycling and disposal in lieu of 40 CFR 260 -272 of the Federal hazardous waste program in states that have adopted these used oil regulations. Consult your attorney or appropriate regulatory official to be sure these standards have been adopted in your state. Recycle or burn in accordance with the applicable standards. Solutia operates a used fluid return program for certain fluids under these used oil standards. Contact your Sales Representative for details. This product should not be dumped, spilled, rinsed or washed into sewers or public waterways.

### Section 14: TRANSPORT INFORMATION

<b>DOT</b>	Not regulated
<b>IMDG</b>	Not regulated
<b>IATA</b>	Not regulated
<b>TDG</b>	Not regulated

### Section 15: REGULATORY INFORMATION

#### U.S. Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

##### **SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	no
<b>Chronic Health Hazard</b>	no
<b>Fire Hazard</b>	no
<b>Sudden release of pressure hazard</b>	no
<b>Reactive Hazard</b>	no

##### **Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

##### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by state right-to-know regulations

**International Regulations****Mexico**

Chemical name	Carcinogen Status	Exposure Limits
White mineral oil (petroleum)	-	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>

**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**

Non-controlled

**International Inventories**

TSCA (US)	Complies
DSL/NDSL (Canada)	Complies
EINECS/ELINCS (EU)	Complies
ENCS (Japan)	Complies
IECSC (China)	Complies
KECL (Korea)	Complies
PICCS (Philippines)	Complies
AICS (Australia)	Complies

**Section 16: OTHER INFORMATION**

<b>NFPA</b>	Health hazard 0	Flammability 1	Stability 0
<b>HMIS</b>	Health hazard 0	Flammability 1	Physical hazard 0

**Prepared By**

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**Revision Note**

New MSDS format, (M)SDS sections updated: All.

**Disclaimer**

The information provided in this Material 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 Material Safety Data Sheet**