

<h1>Solutia Inc.</h1> <h2>Material Safety Data Sheet</h2>
--

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: THERMINOL® XP Heat transfer fluid

Reference Number: 000000000213 Date: 11/07/2003

Company Information:

United States:

Solutia Inc.
575 Maryville Center Drive, P.O. Box 66760
St. Louis, MO 63166-6760
Emergency telephone: Chemtrec: 1-800-424-9300
Non-Emergency telephone: 1-314-674-6661

Canada:

Solutia Canada Inc.
6800 St. Patrick Street
LaSalle, PQ H8N 2H3
Emergency telephone: CANUTEC: 1-613-996-6666
Non-Emergency telephone: 1-314-674-6661

Mexico:

Solutia MEXICO, S. DE R.L. DE C.V.
Blvd. Manuel Avila Camacho No. 40 Piso 12 Colonia Lomas
de Chapultepec
Edificio Torre Esmeralda 11000 Mexico, D.F.
Emergency telephone: SETIQ: (in Mexico) 01-800-002-1400
Non-Emergency telephone: (in Mexico) 555-202-5600

Brazil:

Solutia Brazil Ltd.
Avenue Carlos Marcondes, 1200
CEP: 12241-420-São José dos Campos/SP-Brazil
Emergency telephone: 55 12 3932 7100 (PABX)
Non-Emergency telephone: 55 11 3365 1800 (PABX)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS No.</u>	<u>Average concentration</u>	<u>Concentration range</u>	<u>Units</u>
white mineral oil (petroleum)	8042-47-5	100.0		%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Form: oily, liquid
Colour: clear to colourless
Odour: odourless

WARNING STATEMENTS

No significant hazards associated with this material

POTENTIAL HEALTH EFFECTS

Likely routes of exposure: eye and skin contact
inhalation

Eye contact: No more than slightly irritating to eyes.

Skin contact: No more than slightly irritating to skin.
No more than slightly toxic if absorbed.

Inhalation: No more than slightly toxic if inhaled.
Significant adverse health effects are not expected to develop under normal conditions of exposure.

Ingestion: No more than slightly toxic if swallowed.
Significant adverse health effects are not expected to develop if only small amounts (less than a mouthful) are swallowed.
Coughing, choking and shortness of breath may occur if material is accidentally drawn into the lungs during swallowing or vomiting.

Refer to Section 11 for toxicological information.

4. FIRST AID MEASURES

If in eyes: Immediate first aid is not likely to be required.
This material can be removed with water.

If on skin: Immediate first aid is not likely to be required.
This material can be removed with soap and water.
Wash heavily contaminated clothing before reuse.

If inhaled: Immediate first aid is not likely to be required.
If symptoms occur, remove to fresh air.
Remove material from eyes, skin and clothing.

If swallowed: Do not induce vomiting.
Rinse mouth with water.
Get medical attention.
Contact a Poison Control Center.
Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash point:	199 C	ASTM D-92
Fire point:	232 C	ASTM D-92
Autoignition temperature:	346 C	ASTM E-659
Hazardous products of combustion:	None known;	
Extinguishing media:	Water spray, foam, dry chemical, or carbon dioxide	
Unusual fire and explosion hazards:	None known	
Fire fighting equipment:	Firefighters, and others exposed, wear self-contained breathing apparatus.	

Equipment should be thoroughly decontaminated after use.

Miscellaneous advice: This product is not classified as a fire-resistant heat transfer fluid.
Precautions to avoid sources of ignitions should be taken.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protection recommended in section 8.

Environmental precautions: Keep out of drains and water courses.

Methods for cleaning up: Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

7. HANDLING AND STORAGE

Handling

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing. Precautions against ignitions and fire should be taken with this product. Heat transfer fluids are intended for INDIRECT heating purposes ONLY. This product has not been approved for food grade use.

Emptied containers retain vapour and product residue. Observe all recommended safety precautions until container is cleaned, reconditioned or destroyed. Do not cut, drill, grind or weld on or near this container. The reuse of this material's container for non industrial purposes is prohibited and any reuse must be in consideration of the data provided in this material safety data sheet.

Storage

General: Stable under normal conditions of handling and storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection: Does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact.

Hand protection: Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wearing protective gloves is recommended. Consult the glove/clothing manufacturer to determine the appropriate type glove/clothing for a given application.

Body protection: Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wash contaminated skin thoroughly after handling.

Respiratory protection: This material is not likely to present an airborne exposure concern under normal conditions of use. Avoid breathing vapour or mist. Use approved respiratory protection equipment when airborne exposure limits are exceeded.

Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.
Observe respirator use limitations specified by the manufacturer.

Ventilation: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits.
If practical, use local mechanical exhaust ventilation at sources of air contamination such as processing equipment.

Airborne exposure limits: (ml/m³ = ppm)

THERMINOL® XP ACGIH TLV 5 mg/m³ ; mist ; 8-hr TWA
ACGIH TLV 10 mg/m³ ; mist ; 15-min STEL
OSHA PEL 5 mg/m³ ; mist ; 8-hr TWA

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Density: 0.853 g/cm³ @ 25 C

Boiling point : > 230 C
Vapour pressure: <0.007 hPa @ 20 C

Water solubility: negligible

Viscosity : 24 - 27 mPa.s @ 40 C
27 - 30 mPa.s @ 38 C

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Conditions to avoid: All sources of ignition.

Materials to avoid - Contact with strong oxidizing agents.
Hazardous reactions: Hazardous polymerization does not occur.

Hazardous decomposition products: None known;

11. TOXICOLOGICAL INFORMATION

This product has been tested for toxicity. Results from Solutia sponsored studies or from the available public literature are described below. Produced dermal sensitization (guinea pigs). No allergic response actually reported in humans. Slightly irritating to respiratory system. Prolonged inhalation studies produced lung effects. Chronic exposure to animals produced no increase in tumour incidence.

12. ECOLOGICAL INFORMATION

Solutia has not conducted environmental toxicity or biodegradation studies with this material.

13. DISPOSAL CONSIDERATIONS

US EPA RCRA Status: This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261.

Disposal considerations: Incineration
Recycle

Miscellaneous advice: This product meets the criteria for a 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.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

US DOT

Other: Not regulated for transport.

Canadian TDG

Other: Not regulated for transport.

ICAO/IATA Class

Other: Not regulated for transport.

15. REGULATORY INFORMATION

All components are in compliance with the following inventories: U.S. TSCA, EU EINECS, Canadian DSL, Australian AICS, Korean, Phillipine PICCS, Chinese

Canadian WHMIS classification: Not Controlled

SARA Hazard Notification:

Hazard Categories Under Title III Rules (40 CFR 370): Not applicable

Section 302 Extremely Hazardous Substances:

Section 313 Toxic Chemical(s):

CERCLA Reportable Quantity:

Not applicable

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

Refer to Section 11 for OSHA/HPA Hazardous Chemical(s) and Section 13 for RCRA classification.

Safety data sheet also created in accordance with Brazilian law NBR 14725

16. OTHER INFORMATION

Product use: Heat transferring agents

Reason for revision: Significant changes to the following section(s):, Section 14

	Health	Fire	Reactivity	Additional Information
Suggested NFPA Rating	0	1	0	
Suggested HMIS Rating:	0	1	0	B

Prepared by the Solutia Hazard Communication Group. Please consult Solutia @ 314-674-6661 if further information is needed.

TM, ® is a registered trademark of Solutia Inc.

SOLUTIA is a trademark of Solutia Inc.

Responsible Care® is a registered trademark of the American Chemistry Council.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Solutia Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Solutia Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.