

MATERIAL SAFETY DATA SHEET

PRODUCT NAME : HEAT TRANSFER FLUID

1. Product and Company Identification

Product name: Heat Transfer Fluid
Synonyms: None
Item Numbers: 432-673-001

European Contact Details

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2. Hazards Identification

EMERGENCY OVERVIEW

Odourless, colourless, combustible liquid. This material when properly handled according to good working and hygienic practices is not dangerous to human health. Toxic gases will be produced at high temperatures.

For short and long term exposure effects, refer to Section 11 Toxicological data.

Eye Effects: Causes irritation.

Skin Effects: Causes irritation. Repeated or prolonged contact may cause allergic reactions in very susceptible persons.

Ingestion/Oral Effects: Causes irritation. May cause inflammation of the mucous membranes.

Inhalation Effects: Causes irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

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NFPA Hazard codes		HMIS Hazard codes		Rating System
Health	0	Health	0	0 = No Hazard
Flammability	0	Flammability	0	1 = Slight Hazard
Instability	0	Reactivity	0	2 = Moderate Hazard
				3 = Serious Hazard
				4 = Severe Hazard

3. Composition/Information on Ingredients

Ingredient	% Weight	CAS No	Hazard class*	Risk phrase*
Polydimethylsiloxane	80-99%	63148-62-9	Not applicable	Not applicable

*Hazard class & Risk phrase. These columns are only completed for ingredients which are classified as hazardous under EU Directive No 1272/2008 (as amended) and are present in sufficient concentration to make the overall substance hazardous. In all other situations, the column will be completed as "Not applicable".

4. First Aid Measures

Eyes:	Flush with plenty of water for at least 15 minutes. If irritation persists, seek medical attention.
Skin:	Remove contaminated clothing. Wash with soap and water.
Ingestion/Oral:	Seek medical attention immediately.
Inhalation:	Remove to fresh air. If breathing problems occur, a qualified individual should administer oxygen or artificial respiration as indicated. Seek immediate medical attention for anyone who has symptoms of respiratory distress.
Other Information:	None.

5. Firefighting Measures

Extinguishing Media:	Dry chemical, carbon dioxide, foam, or water spray is recommended. Direct water stream may cause violent frothing.
Fire and Explosion Hazard:	Combustible liquid.
Special Protective Equipment for Firefighters:	Fire fighters should wear a self-contained breathing apparatus (SCBA) which meets appropriate standards operated in positive pressure mode, and full turnout gear, with additional chemical protective clothing adequate for thermal decomposition products.

For Flammability Properties - refer to Section 9.

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6. Accidental Release Measures

Remove all ignition sources. Isolate area of spill and contain spill. Soak up small amounts with absorbent material and place in clean container for later disposal. Dike well ahead of large spills for later recycle or disposal. Thoroughly wash area of spill to prevent slip hazard.

7. Handling and Storage

Handling: Wash thoroughly after handling and before meals and breaks. Do not eat, drink, smoke, apply cosmetics or store personal items in work and storage areas.

Storage: Do not store product in areas that may reach high temperatures (> 150 C).

8. Exposure Controls/Personal Protection

Exposure Limits:

Ingredient	ACGIH - TLV	OSHA - PEL	Occupational Exposure Limits EH40 (UK)
No Hazardous Ingredients	Not applicable	Not applicable	Not applicable

Personal Protection:

Engineering Measures: Use appropriate engineering controls if product is exposed to temperatures > 300 F (150 C).

Respiratory Protection: None required under normal conditions of use.

Hand/Skin Protection: Wear impervious gloves and avoid prolonged skin contact.

Eye/Face Protection: Use chemical splash goggles in case of splashing.

Hygiene Measures: DO NOT eat or smoke in areas where product is in use.

Other/General Protection: General ventilation is adequate for routine handling.

9. Physical and Chemical Properties

Appearance and Odour	Clear, odourless liquid.	Boiling point	232 / 450	°C/°F
pH (as supplied)	No data available	Freezing Point		°C/°F
Solubility in Water	Negligible	Auto Ignition		°C/°F
Volatile Content by Volume	Negligible	Flash Point	> 300 / 572	°C/°F
Specific Gravity	0.963			
Vapour Pressure (mbar)	< 1.333	Vapour Pressure (Torr)	< 1.0	

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10. Stability and Reactivity

Stability:	Stable under normal conditions of storage and handling.
Material/Conditions to Avoid:	Extended exposure to high temperatures can cause decomposition.
Hazardous Decomposition:	Decomposition can yield formaldehyde at 300 °F (150 °C) and above. Formaldehyde may irritate the eyes, skin, nose, throat, and digestive tract or cause respiratory or skin sensitization. Carbon monoxide and carbon dioxide can also be released at high temperatures.
Hazardous Polymerisation:	Will not occur.

11. Toxicological Information

For a comprehensive description for the various toxicological (health) effects which may arise if the user comes into contact with the substance or preparation refer to Section 2 Hazards Identification.

Animal data:

LD50 value: >40,000 mg/kg (RAT).

LC50 value: >535 mg/l (RAT).

Carcinogenicity:

The product does not contain any chemicals that are listed as carcinogens.

12. Ecological Information

Mobility: No information available.

Degradability: No information available.

13. Disposal Considerations

Concentrated solutions must be treated as special waste.

Comply with all local and national disposal safety regulations. Incineration (in accordance with such regulations) is recommended.

14. Transport Information

This product is not classified as dangerous under transport regulations.

PARAMETER	EUROPEAN	CANADIAN TDG	UNITED STATES DOT
Proper Shipping Name	Not applicable	Not applicable	Not applicable
Hazard Class	Not applicable	Not applicable	Not applicable
Identification Number	Not applicable	Not applicable	Not applicable
Shipping Label	Not applicable	Not applicable	Not applicable

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15. Regulatory Information

European Regulatory Information

This product has been classified in accordance with EU Regulation No 1272/2008 (as amended) on the Classification, Labelling and Packaging of Substances and Mixtures.

Classified as dangerous to supply: No.

Risk Phrases: Not applicable.

Safety Phrases: Not applicable.

Symbols: None.

United States Regulatory Information

All materials contained in this product are included on the US Toxic Substances Control Act (TSCA).

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION:

This product does not contain toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and 40 CFR Part 372.

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

Canadian Regulatory Information

WHMIS Classification:

All ingredients in this product are included in the Canadian DSL.

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16. Other Information

This MSDS is compiled in accordance with ANSI Z400.1 and Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Sources of information for this data sheet:

- ClearcoPSF-100cST Silicone Heat Transfer Fluid Safety Data Sheet. Revision date : 1st Septembr 2009.

Glossary:

ACGIH - American Conference of Governmental Industrial Hygienists; **ANSI** - American National Standards Institute; **Canadian TDG** - Canadian Transportation of Dangerous Goods; **CAS** - Chemical Abstracts Service; **CFR** - Code of Federal Regulations; **Chemtrec** - Chemical Transportation Emergency Center (US); **DSL** - Domestic Substances List; **EEC** - European Economic Community; **EH40 (UK)** - HSE Guidance Note EH40 Occupational Exposure Limits; **EPCRA** - Emergency Planning and Community Right-to-Know Act; **EU** - European Union; **HMIS** - Hazardous Material Information Service; **LC** - Lethal Concentration; **LD** - Lethal Dose; **NFPA** - National Fire Protection Association; **OSHA** - Occupational Safety and Health Administration, US Department of Labour; **PEL** - Permissible Exposure Limit; **SARA (Title III)** - Superfund Amendments and Reauthorization Act; **SARA 313** - Superfund Amendments and Reauthorization Act, Section 313; **SCBA** - Self-Contained Breathing Apparatus; **STEL** - Short Term Exposure Limit; **TLV** - Threshold Limit Value; **TSCA** - Toxic Substances Control Act Public Law 94-469; **TWA** - Time-Weighted Average; **US DOT** - US Department of Transportation; **WHMIS** - Workplace Hazardous Materials Information System.

Revisions:

May 2010 - This document has been updated to reflect the latest regulatory information.

July 2010 - This document has been updated to reflect the latest supplier information.

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