SAFETY DATA SHEET

Issue Date 19-Jan-2012 **Revision Date** 5-Jun-2018 **Version** 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name Thermaflo® SH

Other Means of Identification
SDS # CG-002

Synonyms: reclaimed Heat Transfer fluid,

Recommended Use of the Chemical and Restrictions on Use
Recommended Use For industrial use. Heat transfer medium.

Details of the Supplier of the Safety Data Sheet

Manufacturer Address
Chem Group
847 Blacksnake Road
Hot Springs, AR 71913

Chem Group
11210 Solomon Road
Troy, IN 47588

Chem Group,
2410 Lynch Rd.
Evansville, IN 47711

Distributor
Chem Group
2406 Lynch Rd.
Evansville, IN 47711

Emergency Telephone Number
Company Phone Number 1-800-489-2306
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Aspiration toxicity	Category 1

Signal Word
Danger

Hazard Statements
May be fatal if swallowed and enters airways

Appearance Colorless to yellow liquid **Physical State** Liquid @ 20°C/68°F; 1.013 hPa **Odor** Faint odor

Precautionary Statements - Prevention
Avoid sparks, welding and cutting on or near drums, even if empty
An improperly designed or maintained heat transfer system may permit the release of fluid, or air/moisture leakage into the system. This leakage could lower the fluid' s flashpoint and/or produce light ends. System leaks that result in saturated insulation may, when heated over time, create a combustible mixture when suddenly exposed to air. Leakage of fluid from the system at operating temperature and pressure may cause fluid to disperse as an aerosol, which may result in flammable concentrations of vapor in the air. Thermal degradation or other decomposition of the fluid can occur in an improperly maintained heat transfer system, and also for other reasons, including operating the system above the fluid' s recommended operating temperature and failure to maintain proper fluid velocity. Degradation or decomposition of the fluid may also create " low boiler" hydrocarbon compounds or light ends. The occurrence of any of the foregoing conditions may lead to an increased risk of explosion and/or fire

Precautionary Statements - Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Dibenzyltoluene	26898-17-9	100

4. FIRST AID MEASURES

First Aid Measures

General Advice Remove contaminated clothing and shoes. Get medical advice/attention if you feel unwell. When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

Eye Contact Immediately flush eye(s) with plenty of water.

Skin Contact Wash off immediately with soap and plenty of water.

Inhalation Move to fresh air in case of accidental inhalation of vapors. Consult a physician after significant exposure.

Ingestion Do NOT induce vomiting. Call a physician immediately.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms May cause skin and eye irritation. May cause respiratory irritation.

Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray, dry powder, foam, or carbon dioxide (CO2).

Large Fire See Sections 2 and 10 of this Safety Data Sheet.

Unsuitable Extinguishing Media High volume water jet.

Specific Hazards Arising from the Chemical
Dangerous gases or fumes may occur in case of fire.

Protective Equipment and Precautions for Firefighters
Wear self contained breathing apparatus for fire fighting if necessary. Use standard firefighting procedures and consider the hazards of other involved materials. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water may be used to cool closed containers to prevent pressure buildups and possible ignition or explosion when exposed to extreme heat. Do not allow run-off from fire-fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Handle in accordance with good industrial hygiene and safety practice. Danger of slipping after spill or leakage. Spilling onto the container's outside will make container slippery. Use personal protection recommended in Section 8.

Environmental Precautions Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Place collected waste in DOT approved containers for disposal. Dispose of in accordance with federal, state and local regulations. Use mechanical handling equipment. If they get dirty, wash clothes. If equipment gets dirty, clean using a surfactant solution. Clean contaminated floors and objects thoroughly while observing environmental regulations. For large spills: Eliminate all ignition sources (flares, flames, pilot lights, electrical sparks).

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling During use at elevated temperatures thermal decomposition leads to the formation of low-boiling and high-boiling secondary products with potentially flammable properties. When flammable liquids are concentrated and collected appropriate risk management measures must be applied. Risk management measures for flammable liquids are at least: Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Keep container away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Wear protective gloves/protective clothing/eye protection/face protection.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Keep container tightly closed.

Packaging Materials Steel or stainless steel.

Incompatible Materials Strong oxidizing agents. Strong reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines Not determined

Appropriate Engineering Controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection Wear rubber gloves that are chemically resistant to this product. Fluorinated rubber gloves are recommended (with breakthrough time >=480 minutes and material thickness of >= 0.4mm).

Respiratory Protection No protection is ordinarily required under normal conditions of use and with adequate ventilation. In inadequately ventilated areas, where workplace limits are exceeded, or where unpleasant odors exist or aerosols are in use, or smoke or mist occur, use self-contained breathing apparatus or NIOSH/MSHA approved respirator as appropriate.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Liquid @ 20°C/68°F; 1.013 hPa		
Appearance	Colorless to yellow liquid	**Odor**	Faint odor
Color	Colorless to yellow	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	Not applicable	
Melting Point/Freezing Point	~ -39°C/-38°F to -32°C/-25°F	
Boiling Point/Boiling Range	~ 390°C/734°F; 1.013hPa	Thermal decomposition
Flash Point	~ 212°C/413°F	Regulation (EC) No. 440/2008; Method A.9
Evaporation Rate	Not determined	

Flammability (Solid, Gas)	Not applicable (liquid)	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	< 0.01 hPa; 20°C/ 68°F	Regulation (EC) No. 440/2008; Method A.4
Vapor Density	Not determined	
Specific Gravity	Not determined	
Water Solubility	0.1 mg/L; 20°C/68°F	Regulation (EC) No. 440/2008; Method A.6
Solubility in Other Solvents	Not determined	
Partition Coefficient	log Pow: >6; 22°C	OECD Test Guideline 117
Autoignition Temperature	Not auto-flammable	
Decomposition Temperature	Not determined	
Kinematic Viscosity	16 mm2/s	@ 40°C
Dynamic Viscosity	Not determined	
Explosive Properties	Predicted not explosive based on chemical structure	
Oxidizing Properties	Predicted not to be an oxidizer based on chemical structure	
Density	1.04 g/cm3; 20°C/68°F OECD Test Guideline 109	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under normal conditions. No decomposition if stored normally.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization None under normal processing.

Conditions to Avoid
Extremes of temperature and direct sunlight. Direct heating, dirt, chemical contamination, sunlight, UV or ionizing radiation.

Incompatible Materials
Strong oxidizing agents. Strong reducing agents.

Hazardous Decomposition Products
During the use of this product at elevated temperatures thermal decomposition leads to the formation of low-boiling and high-boiling secondary products. See also Section 7 of this Safety Data Sheet. Thermal degradation or other decomposition of the fluid can occur in an improperly maintained heat transfer system, and also for other reasons, including operating the system above the fluid's recommended operating temperature and failure to maintain proper fluid velocity. Degradation or decomposition of the fluid may create "low boiler" hydrocarbon compounds, the presence of which may reduce the fluid's flashpoint, leading to an increased risk of fire and/or explosion.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact May cause acute eye irritation upon over-exposure.

Skin Contact May cause acute skin irritation upon over-exposure.

Inhalation Over-exposure to vapors could result in upper respiratory tract irritation.

Ingestion May be fatal if swallowed and enters airways.

Component Information Not available

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity Carcinogenic potential is unknown.

Aspiration Hazard May be fatal if swallowed and enters airways.

Numerical Measures of Toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
May cause long lasting harmful effects to aquatic life.

Component Information Not available

Persistence and Degradability
This product is biodegradable

Bioaccumulation
Substance is not expected to bioconcentrate in marine life Bioconcentration factor (BCF): 7.525; calculated (literature value)

Mobility
Slightly mobile in soils Adsorption/Soil; log Koc: 3.548 - 5.578; OECD Test Guideline 121

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Listed
DSL	Listed
ENCS	Listed
KECL	Listed
PICCS	Listed
AICS	Listed

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances* ***IECSC***

- China Inventory of Existing Chemical Substances ***KECL*** *-*

Korean Existing and Evaluated Chemical Substances

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

US Federal Regulations

SARA 313

Not determined

US State Regulations

U.S. State Right-to-Know Regulations

Not Determined

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	Not determined	Not determined	Not determined	Not determined

Issue Date	19-Jan-2012
Revision Date	05-Jun-2018
Revision Note	Updated Product Name

Disclaimer

The information provided in this 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 Safety Data Sheet