1. IDENTIFICATION

Product Identifier
Product Name Thermaflo® 59

Other means of identification
SDS # CG-009
Synonyms T-59

Recommended use of the chemical and restrictions on use
Recommended Use Heat transfer fluid.

Details of the supplier of the safety data sheet
Supplier Address ORG Chem Group, LLC
2406 Lynch Road
Evansville, IN 47711
www.chem-group.com

Emergency Telephone Number
Company Phone Number Non ER questions 800-489-2306 / 812-464-4446
Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Appearance Light yellow liquid
Physical State Liquid
Odor Faint aromatic odor

Classification
This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

Unknown Acute Toxicity
100% of the mixture consists of ingredient(s) of unknown toxicity
Precaution
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.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl diphenylethane</td>
<td>64800-83-5</td>
<td>30-60</td>
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<tr>
<td>Diethyl diphenyl ethane</td>
<td>68398-19-6</td>
<td>10-30</td>
</tr>
<tr>
<td>(phenyl ethyl) benzene</td>
<td>38888-98-1</td>
<td>10-30</td>
</tr>
<tr>
<td>Ethylbenzene homopolymer</td>
<td>27536-89-6</td>
<td>7-13</td>
</tr>
</tbody>
</table>

**If Chemical Name/CAS No is “proprietary” and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

### 4. FIRST-AID MEASURES

**First Aid Measures**

**General Advice**
Provide this SDS to medical personnel for treatment.

**Eye Contact**
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact**
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

**Ingestion**
Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Most important symptoms and effects**

**Symptoms**
May cause eye, skin and respiratory tract irritation.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
### Unsuitable Extinguishing Media
Do not scatter spilled material with high pressure water streams.

### Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

#### Hazardous Combustion Products
Carbon oxides, Soot, Smoke, Hydrocarbons.

#### Sensitivity to Mechanical Impact
None.

#### Sensitivity to Static Discharge
None.

### Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

##### Personal Precautions
Ensure adequate ventilation, especially in confined areas.

##### Environmental Precautions
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Collect spillage. See Section 12 for additional Ecological Information.

#### Methods and material for containment and cleaning up

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

##### Methods for Clean-Up
Dike far ahead of liquid spill for later disposal. Absorb with inert material or sweep up, and then place in suitable container for chemical waste.

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

##### Advice on Safe Handling
Wash face, hands, and any exposed skin thoroughly after handling. Use personal protection recommended in Section 8. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes or clothing.

#### Conditions for safe storage, including any incompatibilities

##### Storage Conditions
Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up.

##### Incompatible Materials
Strong oxidizing agents. Ignition sources.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Exposure Guidelines
No exposure limits noted for ingredient(s) The following information is given as general guidance.

#### Appropriate engineering controls

##### Engineering Controls
Maintain eye wash fountain and quick-drench facilities in work area.
## Eye/Face Protection
Safety goggles.

## Skin and Body Protection
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

## Respiratory Protection
In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.

## General Hygiene Considerations
Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Light yellow liquid</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Faint aromatic odor</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Light yellow</td>
<td></td>
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<td>Odor Threshold</td>
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<tr>
<td>pH</td>
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</tr>
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<td>Melting Point/Freezing Point</td>
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<td>Boiling Point/Boiling Range</td>
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<td>Evaporation Rate</td>
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<td>Flammability (Solid, Gas)</td>
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<tr>
<td>Upper Flammability Limits</td>
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<tr>
<td>Lower Flammability Limit</td>
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<tr>
<td>Vapor Pressure</td>
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<td></td>
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<tr>
<td>Vapor Density</td>
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<tr>
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<td>Water Solubility</td>
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<tr>
<td>Solubility in other solvents</td>
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<td></td>
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<tr>
<td>Partition Coefficient</td>
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<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
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</tr>
<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Kinematic Viscosity</td>
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<td></td>
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<td>Dynamic Viscosity</td>
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<tr>
<td>Explosive Properties</td>
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<td></td>
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<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
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</tbody>
</table>

## 10. STABILITY AND REACTIVITY

### Reactivity
Not reactive under normal conditions.

### Chemical Stability
Stable under recommended storage conditions.

### Possibility of Hazardous Reactions
None under normal processing.

#### Hazardous Polymerization
Hazardous polymerization does not occur.

### Conditions to Avoid
Ignition sources.
**Incompatible Materials**
Strong oxidizing agents. Ignition sources.

**Hazardous Decomposition Products**
Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Product Information**

- **Eye Contact**
  Irritating to eyes.
- **Skin Contact**
  Irritating to skin. Prolonged contact may cause redness and irritation.
- **Inhalation**
  Avoid breathing vapors or mists.
- **Ingestion**
  May cause discomfort if swallowed.

**Component Information**

### Information on physical, chemical and toxicological effects

- **Symptoms**
  Signs and symptoms of overexposure: headache, dizziness / incoordination, nausea/vomiting, loss of consciousness, vertigo, confusion, anxiety, laboured breathing, drowsiness.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

- **Carcinogenicity**
  Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**

- **Not determined**

**Unknown Acute Toxicity**

- 100% of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Persistence/Degradability**

- Not determined.

**Bioaccumulation**

- Not determined.

**Mobility**

- Not determined

**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**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
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<tbody>
<tr>
<td>Ethyl diphenylethane</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td></td>
<td>X</td>
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<tr>
<td>Diethyl diphenyl ethane</td>
<td>Present</td>
<td>X</td>
<td></td>
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<td></td>
<td>X</td>
<td></td>
<td></td>
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<td>(phenyl ethyl) benzene</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td></td>
<td>X</td>
<td></td>
<td>Present</td>
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<td>X</td>
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</tbody>
</table>

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
- **AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**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).

**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
CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US 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 under applicable state right-to-know regulations

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
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<tbody>
<tr>
<td></td>
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<td>1</td>
<td>0</td>
<td>Not determined</td>
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<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
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Issue Date: 13-Nov-2014
Revision Date: 06-Jul-2018
Revision Note: Changed 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