1. Identification

1.1. Product identifier
Product Identity: BioTherm Fluids Automotive & Industrial (AI)
Alternate Names: Anti-Freeze Fluid, BioTherm Fluids Automotive & Industrial (AI), Heat Transfer Fluid (Formerly IceClear HD)

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use: See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet
Company Name: Orison Marketing, LLC
Address: 4801 South Danville Drive
City, State, Zip: Abilene, TX 79602

Emergency
CHEMTREC (USA): (800) 424-9300
24 hour Emergency Telephone No.: (325) 692-1135 or US: 800-460-2403
Customer Service: Orison Marketing, LLC
US: 800-460-2403

2. Hazard(s) identification

2.1. Classification of the substance or mixture
No applicable GHS categories.

2.2. Label elements
No applicable GHS categories.

[Prevention]:
No GHS prevention statements

[Response]:
No GHS response statements

[Storage]:
No GHS storage statements

[Disposal]:
No GHS disposal statements
3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>50 - 75</td>
<td>Not Classified</td>
<td>[1][2]</td>
</tr>
</tbody>
</table>

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance with a health or environmental hazard.
*The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion
Do not induce vomiting. Drink water to dilute.

4.2. Most important symptoms and effects, both acute and delayed

Overview
Inhalation: None expected

Eye Contact: May cause slight irritation

Skin Contact: Irritation unlikely

Ingestion: Product is non-toxic. Single doses of greater than 50 grams may have a laxative effect. Treat symptomatically.

Section 5. Fire-fighting measures

5.1. Extinguishing media
Carbon Dioxide, Foam, Dry Chemical and Water Fog.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: Oxides of Carbon
5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

Avoid breathing decomposition products. Fire fighters wear protective clothing and NIOSH approved respirator.

ERG Guide No. ----

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Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Spilled material may be slippery. Small spills can be washed into chemical sewers. Large spills should be collected for disposal. Dike area to contain spill. Absorbing sand, earth, vermiculite or similar material. Wear appropriate protective equipment.

Incinerate or dispose of in approved solid waste disposal area per current regulations.

---

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: Acids, strong oxidizing agents, and reducing agents.

Store in a dry location away from heat, sparks and other sources of ignition. Keep containers closed when not in use.

7.3. Specific end use(s)

No data available.
Section 8. Exposure controls / personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Exposure</th>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0000056-81-5</td>
<td>Glycerin</td>
<td>OSHA</td>
<td>TWA 15 mg/m³ (total dust) TWA 5 mg/m³ (resp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACGIH</td>
<td>TWA: 3 mg/m³ (respirable) 10 mg/m³ (mist)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No established RELs</td>
</tr>
</tbody>
</table>

Contains mineral oil. The exposure limits for oil mist are 5 mg/m³ OSHA PEL and 10 mg/m³ ACGIH.

8.2. Exposure controls

Respiratory
If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes
Goggles recommended.

Skin
Rubber gloves recommended.

Engineering Controls
Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Section 9. Physical and chemical properties

Appearance
Orange Liquid

Odor
Odorless

Odor threshold
Not determined

pH
7.5 - 8.9

Melting point / freezing point
-31 F (-35 C)

Initial boiling point and boiling range
228 F (109 C)

Flash Point
Not Measured

Evaporation rate (Ether = 1)
< 1 (Ether = 1)

Flammability (solid, gas)
Not Applicable

Upper/lower flammability or explosive limits
Lower Explosive Limit: Not Measured
Upper Explosive Limit: Not Measured

Vapor pressure (Pa)
565 mmHg (at 100 C)

Vapor Density
Not Measured

Relative Density
1.15 (Water = 1)

Solubility in Water
Complete

Partition coefficient n-octanol/water (Log Kow)
Not Measured

Auto-ignition temperature
Not Measured
Decomposition temperature
Not Measured
Viscosity (cSt)
11 cSt (at 20 C)
% Volatile (by volume)
35 - 40%

**9.2. Other information**
No other relevant information.

### Section 10. Stability and reactivity

**10.1. Reactivity**
Hazardous Polymerization will not occur.

**10.2. Chemical stability**
Stable under normal circumstances.

**10.3. Possibility of hazardous reactions**
No data available.

**10.4. Conditions to avoid**
No data available.

**10.5. Incompatible materials**
Acids, strong oxidizing agents, and reducing agents.

**10.6. Hazardous decomposition products**
Oxides of Carbon

### Section 11. Toxicological information

**Acute toxicity**
Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LC50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LC50, mg/L/4hr</th>
<th>Inhalation Gas LC50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin - (56-81-5)</td>
<td>10,000.00, Guinea Pig - Category: NA</td>
<td>56,750.00, Guinea Pig - Category: NA</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Carcinogen Data**

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000056-81-5</td>
<td>Glycerin</td>
<td>OSHA</td>
<td>Regulated Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

**Classification**

<table>
<thead>
<tr>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
</table>
### Section 12. Ecological information

#### 12.1. Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.

**Aquatic Ecotoxicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin - (56-81-5)</td>
<td>54,000.00, Oncorhynchus mykiss</td>
<td>1,955.00, Daphnia magna</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability
There is no data available on the preparation itself.

#### 12.3. Bioaccumulative potential
Not Measured

#### 12.4. Mobility in soil
No data available.

#### 12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

#### 12.6. Other adverse effects
No data available.

### Section 13. Disposal considerations

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Page 6 of 8
13.1. Waste treatment methods
Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Regulated</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>14.3. Transport hazard class(es)</td>
<td>14.4. Packing group</td>
</tr>
<tr>
<td>Not Regulated</td>
<td>DOT Hazard Class: Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>IMDG</td>
<td>IMDG: Not Applicable</td>
<td>Air Class: Not Applicable</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>Sub Class: Not Applicable</td>
<td></td>
</tr>
<tr>
<td>IMDG Marine Pollutant: No;</td>
<td>Not Applicable</td>
<td></td>
</tr>
</tbody>
</table>

Section 15. Regulatory information

Regulatory Overview
The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA)
All components of this material are either listed or exempt from listing on the TSCA Inventory.

US EPA Tier II Hazards
Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): No
Delayed (Chronic): No

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:
This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

SDS Revision Date 01/09/2020
The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:
Not Applicable

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 is not valid for such material used in combination with any other materials or in any process, unless specified in the text.

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