SAFETY DATA SHEET
Thermal Transfer Fluids

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME
Thermal Transfer Fluids

SYNONYMS, TRADE NAMES
Inhibited Ethylene Glycol, , Thermocal.., , Ucatherm, Cool~Flo Me

SUPPLIER
UNIVAR LTD
46 Peckover Street
BRADFORD
West Yorkshire
United Kingdom
Tel: +44 1274 377000
Fax: +44 1274 377001
sds@univareurope.com

SDS No.
T020

Emergency Contact Number (Office Hours)
+441274 377070

2 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>EC No.</th>
<th>CAS-No.</th>
<th>Content</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANEDIOL</td>
<td>203-473-3</td>
<td>107-21-1</td>
<td>50-100%</td>
<td>Xn;R22</td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases are Displayed in Section 16

3 HAZARDS IDENTIFICATION

Harmful if swallowed.

CLASSIFICATION
Xn;R22.

4 FIRST-AID MEASURES

INHALATION
Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

INGESTION
Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

SKIN CONTACT
Remove contaminated clothing immediately and wash skin with soap and water.

EYE CONTACT
Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA
Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

SPECIFIC HAZARDS
Oxides of: Carbon.

PROTECTIVE MEASURES IN FIRE
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES
Thermal Transfer Fluids

PERSONAL PRECAUTIONS
Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS
Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

SPILL CLEAN UP METHODS
Absorb with inert, damp, non-combustible material, then flush area with water. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS
Read and follow manufacturer's recommendations. Mechanical ventilation or local exhaust ventilation may be required. Avoid contact with skin and eyes.

STORAGE PRECAUTIONS
Store in tightly closed original container in a well-ventilated place.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Name</th>
<th>Std</th>
<th>LT - ppm</th>
<th>LT - mg/m³</th>
<th>ST - ppm</th>
<th>ST - mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANEDIOL</td>
<td>WEL</td>
<td></td>
<td>52 mg/m³(Sk)</td>
<td>104 mg/m³(Sk)</td>
<td></td>
</tr>
</tbody>
</table>

PROTECTIVE EQUIPMENT

RESPIRATORY EQUIPMENT
If ventilation is insufficient, suitable respiratory protection must be provided.

HAND PROTECTION
Use protective gloves.

EYE PROTECTION
Wear approved safety goggles.

OTHER PROTECTION
Wear rubber apron. Wear rubber footwear.

9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPEARANCE</td>
<td>Liquid</td>
</tr>
<tr>
<td>COLOUR</td>
<td>Varying</td>
</tr>
<tr>
<td>SOLUBILITY</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>BOILING POINT (°C)</td>
<td>150</td>
</tr>
<tr>
<td>RELATIVE DENSITY</td>
<td>1.115</td>
</tr>
<tr>
<td>pH-VALUE, CONC. SOLUTION</td>
<td>6 - 8</td>
</tr>
<tr>
<td>AUTOIGNITION TEMPERATURE (°C)</td>
<td>400</td>
</tr>
<tr>
<td>MELTING POINT (°C)</td>
<td>-13</td>
</tr>
<tr>
<td>VAPOUR PRESSURE</td>
<td>&lt;10 Pa 20</td>
</tr>
<tr>
<td>FLASH POINT (°C)</td>
<td>116 CC (Closed cup)</td>
</tr>
<tr>
<td>PARTITION COEFFICIENT (N-Octanol/Water)</td>
<td>-1.36</td>
</tr>
</tbody>
</table>

10 STABILITY AND REACTIVITY

STABILITY
Stable under normal temperature conditions and recommended use.

MATERIALS TO AVOID
Strong oxidising substances.

HAZARDOUS DECOMPOSITION PRODUCTS
Oxides of: Carbon.
11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 6000 - 13000 mg/kg (oral rat)

INHALATION
Irritating to respiratory system.

INGESTION
Gastrointestinal symptoms, including upset stomach. Nausea, vomiting.

SKIN CONTACT
Irritating to skin.

EYE CONTACT
Irritating to eyes.

12 ECOLOGICAL INFORMATION

MOBILITY
The product is soluble in water.

COD 1.29

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION
When handling waste, consideration should be made to the safety precautions applying to handling of the product. Do not puncture or incinerate even when empty.

DISPOSAL METHODS
Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

GENERAL Not regulated.

15 REGULATORY INFORMATION

LABELLING

Harmful

CONTAINS ETHANEDIOL

RISK PHRASES
R22 Harmful if swallowed.

SAFETY PHRASES
S60 This material and its container must be disposed of as hazardous waste.

STATUTORY INSTRUMENTS
Chemicals (Hazard Information and Packaging) Regulations.

APPROVED CODE OF PRACTICE
Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations
Dangerous for Supply.

GUIDANCE NOTES
CHIP for everyone HSG(108).

16 OTHER INFORMATION

REV. NO./REPL. SDS GENERATED 05
Thermal Transfer Fluids

SDS NO. T020

SAFETY DATA SHEET STATUS
Approved.

DATE 5th December 2006

SIGNATURE Jitendra Panchal
SIGNATURE 2 Peter Cooper

RISK PHRASES IN FULL
R22 Harmful if swallowed.