1. IDENTIFICATION

Product Identifier
Product Name: Thermaflo® Flushing Fluid

Other means of identification
SDS #: CG-028

Recommended use of the chemical and restrictions on use
Recommended Use: High flash solvent in epoxy, vinyl and urethane formulations.

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 brown liquid
Physical State: Liquid
Odor: Aromatic

Classification
Carcinogenicity: Category 1B

Signal Word
Danger

Hazard Statements
May cause cancer
Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response
If exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates, petroleum, catalytic reformer fractionator residue, intermediate-boiling</td>
<td>68477-30-5</td>
<td>100</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.1-1.0</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.**

This product can contain Polycyclic Aromatic Hydrocarbons (PAHs) identified by IARC as carcinogens; Acenaphthene, Acenaphthylene Anthracene, Benzo(a)anthracene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenathrene, Pyrene.

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
Regular foam or carbon dioxide or dry chemical.

Unsuitable Extinguishing Media High volume water jet. Water or foam may cause frothing.

Specific Hazards Arising from the Chemical
Dangerous gases or fumes may occur in case of fire. Avoid sparks, welding and cutting on or near drums (or its residue) because product (or its residue) can ignite explosively.

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

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 Ensure adequate ventilation, especially in confined areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

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

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 Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>STEL: 15 ppm TWA: 10 ppm</td>
<td>TWA: 10 ppm TWA: 50 mg/m³ (vacated) TWA: 10 ppm (vacated) STEL: 15 ppm (vacated) STEL: 75 mg/m³</td>
<td>IDLH: 250 ppm TWA: 10 ppm TWA: 50 mg/m³ STEL: 15 ppm STEL: 75 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls
Maintain eye wash fountain and quick-drench facilities in work area.

Individual protection measures, such as personal protective equipment

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

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks · Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td>Odor</td>
</tr>
<tr>
<td>Appearance</td>
<td>Light brown liquid</td>
<td>Aromatic</td>
</tr>
<tr>
<td>Color</td>
<td>light brown</td>
<td>Odor Threshold</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>&gt; 176.66 °C / 450 °F</td>
<td>COC</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 148.88 °C / &gt; 300 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Liquid-not applicable</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt;1mmHg</td>
<td>@ 25°C (77°F)</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Heavier than air</td>
<td>at 15.6°C (60°F)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>&gt; 1.0</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Not soluble</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>&gt; 4 - &lt; 225 cSt</td>
<td>@ 40°C (104°F)</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>

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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.

Hazardous Decomposition Products
Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact
Moderately irritating to the eyes.

Skin Contact
May cause moderate irritation to skin. Prolonged or repeated contact may cause moderate irritation, defatting, dermatitis.

Inhalation
Avoid breathing vapors or mists.

Ingestion
May cause discomfort if swallowed.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene 91-20-3</td>
<td>= 490 mg/kg (Rat)</td>
<td>&gt; 20 g/kg (Rabbit)</td>
<td>&gt; 340 mg/m³ (Rat) 1 h</td>
</tr>
</tbody>
</table>

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
May cause cancer. This product can contain Polycyclic Aromatic Hydrocarbons (PAHs) identified by IARC as carcinogens; Acenaphthene, Acenaphthylene Anthracene, Benzo(a)anthracene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, Pyrene.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene 91-20-3</td>
<td></td>
<td>Group 2B</td>
<td>Reasonably Anticipated</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
NTP (National Toxicology Program)
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

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

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene 91-20-3</td>
<td></td>
<td>5.74 - 6.44: 96 h Pimephales promelas mg/L LC50 flow-through 1.6: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.91 - 2.82: 96 h Oncorhynchus mykiss mg/L LC50 static 1.99: 96 h Pimephales promelas mg/L LC50 static 31.0265: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>2.16: 48 h Daphnia magna mg/L LC50 1.96: 48 h Daphnia magna mg/L EC50 Flow through 1.09 - 3.4: 48 h Daphnia magna mg/L EC50 Static</td>
<td></td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene 91-20-3</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Other Adverse Effects
Hazardous Air Pollutant; Naphthalene, 2-Methylnaphthalene
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.

US EPA Waste Number

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene 91-20-3</td>
<td>U165</td>
<td>Included in waste streams: F024, F025, F034, F039, K001, K035, K060, K087, K145</td>
<td>U165</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene 91-20-3</td>
<td></td>
<td></td>
<td>Toxic waste waste number F025</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.</td>
<td></td>
</tr>
</tbody>
</table>

California Hazardous Waste Status

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene 91-20-3</td>
<td>Toxic</td>
</tr>
</tbody>
</table>

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>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates, petroleum, catalytic reformer fractionator residue, intermediate-boiling</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naphthalene</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td></td>
<td></td>
<td></td>
<td>Present</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</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, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>100 lb 1 lb</td>
<td></td>
<td>RQ 100 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 45.4 kg final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 1 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 0.454 kg final RQ</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Categories**

Acute Health Hazard: Yes
Chronic Health Hazard: Yes

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not a chemical which is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene - 91-20-3</td>
<td>91-20-3</td>
<td>0.1-1.0</td>
<td>0.1</td>
</tr>
</tbody>
</table>

**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)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>100 lb</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**US State Regulations**

**California Proposition 65**
This product contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene - 91-20-3</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>1</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>1</td>
<td></td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 01-Dec-2014
Revision Date: 28-May-2015
Revision Note: Updated Company 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