Thermal Charge PGSE Concentrate Heat Transfer Fluid
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 03/13/2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Thermal Charge PGSE Concentrate Heat Transfer Fluid

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Heat transfer fluid

1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC
4065 Commercial Ave.
Northbrook, IL 60062 - USA
T (847) 559-2000
www.oldworldind.com

1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)
Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
Signal word (GHS-US) : None
Hazard statements (GHS-US) : None
Precautionary statements (GHS-US) : None

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>% by wt</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>propylene glycol</td>
<td>(CAS No) 57-55-6</td>
<td>94 - 96</td>
<td>Not classified</td>
</tr>
<tr>
<td>water</td>
<td>(CAS No) 7732-18-5</td>
<td>&lt;= 4</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Not expected to present a significant hazard under anticipated conditions of normal use.

First-aid measures after eye contact : IF IN EYES: 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.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth. Obtain emergency medical attention.
### 4.2. Most important symptoms and effects, both acute and delayed

<table>
<thead>
<tr>
<th>Symptoms/injuries</th>
<th>Not expected to present a significant hazard under anticipated conditions of normal use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms/injuries after skin contact</td>
<td>Contact during a long period may cause light irritation.</td>
</tr>
<tr>
<td>Symptoms/injuries after eye contact</td>
<td>May cause slight irritation.</td>
</tr>
<tr>
<td>Symptoms/injuries after ingestion</td>
<td>Excessive ingestion may cause central nervous system effects.</td>
</tr>
</tbody>
</table>

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media


### 5.2. Special hazards arising from the substance or mixture

Reactivity: Stable.

### 5.3. Advice for firefighters

Special protective equipment for fire fighters: Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves). Wear positive pressure self-contained breathing apparatus (SCBA).

### SECTION 6: Accidental release measures

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

**6.1.1. For non-emergency personnel**

No additional information available

**6.1.2. For emergency responders**

No additional information available

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

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

For containment: Collect spillage. Contain released substance, pump into suitable containers.

Methods for cleaning up: Notify authorities if product enters sewers or public waters. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. This material and its container must be disposed of in a safe way, and as per local legislation.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

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

Storage conditions: Keep container closed when not in use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Appropriate engineering controls

No additional information available

#### 8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

- Face shield.
- Protective goggles.
Hand protection:
Not required for normal conditions of use

Eye protection:
Chemical goggles or face shield

Respiratory protection:
If exposed to levels above exposure limits wear appropriate respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Color: Fuschia
Odor: Odorless
Odor threshold: No data available
pH 50% water solution: 10 - 11
Reserve Alkalinity: 4.5 - 6.4 ml
Relative evaporation rate (butylacetate=1): Slight
Freezing point: No data available
Boiling point: 154 °C (310 °F)
Flash point: 104 °C (219 °F) Method used: Penksy-Martens Closed Cup
Auto-ignition temperature: 371 °C (700 °F)
De decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapor pressure: < 0.1 mm Hg
Relative vapor density at 20 °C: 2.6
Specific Gravity: 1.04
Density: 1.04 kg/l (8.67 lbs/gal)
Solubility: Water: Complete
Log Pow: No data available
Log Kow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: Not applicable.
Oxidizing properties: Not applicable.
Explosive limits: 2.6 - 12.5 vol % Estimated

9.2. Other information

VOC content: 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.
### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Keep away from strong acids, strong bases and oxidizing agents.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td><strong>Propylene glycol (57-55-6)</strong></td>
<td></td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>20,000.00 mg/kg (Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>22,500.00 mg/kg (Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>20,800.00 mg/kg (Rabbit; Experimental value)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>20,000.00 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>20,800.00 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**: Not classified

**Serious eye damage/irritation**: Not classified

**Respiratory or skin sensitisation**: Not classified

**Germ cell mutagenicity**: Not classified

**Carcinogenicity**: Not classified

**Reproductive toxicity**: Not classified

**Specific target organ toxicity (single exposure)**: Not classified

**Specific target organ toxicity (repeated exposure)**: Not classified

**Aspiration hazard**: Not classified

**Symptoms/injuries after skin contact**: Contact during a long period may cause light irritation.

**Symptoms/injuries after eye contact**: May cause slight irritation.

**Symptoms/injuries after ingestion**: Excessive ingestion may cause central nervous system effects.

### SECTION 12: Ecological information

#### 12.1. Toxicity

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Propylene glycol (57-55-6)</strong></td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>34,400.00 mg/l (EC50; 48 h)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>51,600.00 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Propylene glycol (57-55-6)</strong></td>
<td></td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>Readily biodegradable in water. Biodegradable in the soil.</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>0.96 - 1.08 g O₂/g substance</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>1.63 g O₂/g substance</td>
</tr>
<tr>
<td>ThOD</td>
<td>1.69 g O₂/g substance</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
<td>0.57</td>
</tr>
</tbody>
</table>

#### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Propylene glycol (57-55-6)</strong></td>
<td></td>
</tr>
<tr>
<td>Log Pow</td>
<td>-1.41 - -0.30 (-0.92; Experimental value; -1.07; Experimental value; Equivalent or similar to OECD 107; 20.5 °C)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Not bioaccumulative.</td>
</tr>
</tbody>
</table>
12.4. Mobility in soil

<table>
<thead>
<tr>
<th>propylene glycol (57-55-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension: 0.04 N/m (25 °C)</td>
</tr>
</tbody>
</table>

12.5. Other adverse effects

Effect on ozone layer: No known effect on the ozone layer

Effect on global warming: No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations: Dispose of contents/container to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated

TDG
Refer to current TDG Canada for further Canadian regulations

Transport by sea
Not regulated

Air transport
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Thermal Charge PGSE Concentrate Heat Transfer Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EPA TSCA Regulatory Flag</strong></td>
</tr>
<tr>
<td>water (7732-18-5)</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA

<table>
<thead>
<tr>
<th>Thermal Charge PGSE Concentrate Heat Transfer Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WHMIS Classification</strong></td>
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</table>

EU-Regulations
No additional information available

National regulations

<table>
<thead>
<tr>
<th>Thermal Charge PGSE Concentrate Heat Transfer Fluid</th>
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<tbody>
<tr>
<td>DSL (Canada): The intentional ingredients of this product are listed</td>
</tr>
<tr>
<td>ECL (South Korea): The intentional ingredients of this product are listed</td>
</tr>
<tr>
<td>EINECS (Europe): The intentional ingredients of this product are listed</td>
</tr>
<tr>
<td>ENCS (Japan): The intentional ingredients of this product are listed</td>
</tr>
</tbody>
</table>

15.3. US State regulations

California Proposition 65 - This product does not contain any substance(s) known to the state of California to cause cancer, developmental toxicity and/or reproductive toxicity
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<tbody>
<tr>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

## SECTION 16: Other information

**Revision date**: 03/13/2017

**NFPA health hazard**: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

**NFPA fire hazard**: 1 - Must be preheated before ignition can occur.

**NFPA reactivity**: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**HMIS III Rating**

**Health**: 0 Minimal Hazard - No significant risk to health

**Flammability**: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 °F (93 °C). (Class IIIB)

**Physical**: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS GHS US (GHS HazCom 2012) OWI

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