1. Product Identification

Champion Brands, LLC
1001 Golden Drive
Clinton, MO 64093
(660) 885-8151

Product line: CHAMPION® Quantum MV Heat Transfer Fluid
Products: 4218, 4223
CAS: Not applicable (Mixture)
Synonyms: Heat Transfer and Quenching Oil
Recommended use: Industrial Oil
Restrictions: None determined
Created: 27 June 2012
Revised: 29 August 2019
Emergency phone: CHEMTREC: (+1) 800-424-9300

2. Hazards Identification

Appearance: Light Amber Liquid
Odor: Petroleum
Classification: Not Hazardous
Target organs:
Symbol(s):
Signal Word:
Hazard Statement(s):
Product will burn, though difficult to ignite. This product produces oil sheen on bodies of water. Mists of sprays of this product may be harmful if inhaled. Prolonged or repeated exposure may cause eye or skin irritation.

Other hazard(s):

Precaution(s):
Avoid breathing vapors/mist/spray. Wear protective gloves/protective clothing/eye protection. Avoid release to the environment.

Disposal:
Keep out of waterways. Check local, national, and international regulations for proper disposal.
3. Composition/Information on Ingredients

Hazardous Ingredients:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Conc (wt%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil</td>
<td>Mixture</td>
<td>98 – 100</td>
</tr>
<tr>
<td>Alkyl Sulfonates</td>
<td>Confidential</td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>

4. First Aid Measures

**Eyes**
Flush eyes with running water for at least 15 minutes. Get medical attention if irritation persists.

**Skin**
Flush exposed area with running water for at least 15 minutes. Remove contaminated clothing and launder before reuse. Get medical attention if irritation persists or if signs of an allergic reaction appear.

**Inhalation**
Move to fresh air. If nausea or other symptoms persist, get medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and get medical attention immediately.

**Ingestion**
DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, lower head below hips to reduce risk of aspiration.

**Additional Info**
Note to physician: Treat symptomatically.

5. Fire Fighting Measures

**Flash Point**
> 93°C / 199°F (based on flammability of components)

**Extinguishing Media**
Use water spray, fog, foam, dry chemical or CO₂

**Unsuitable Media**
Water jet may cause fire to spread

**Firefighting Procedures:** Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear

**Unusual Hazards**
See section 10 for additional information
6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Keep unnecessary personnel away. Wear appropriate personal protective equipment for emergency. Ventilate if released in a confined area. Eliminate sources of ignition if it is safe to do so. Wear suitable personal protective equipment and stop the spread of material will adsorbent or socks if safe to do so.

Environmental precautions: Avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways or groundwater. Produces oil sheen on waterways. Toxic to aquatic organisms

Methods for removal: Use a pump or bucket to recover free liquid. Residual liquid can be absorbed on inert material. Use non-sparking tools.

7. Handling and Storage

Max. Handling Temp: 70°C / 158°F
Procedures: Open container in a cool, well ventilated area. Avoid breathing vapors. Keep containers closed when not in use. Use appropriate containment to avoid environmental contamination. Avoid use in confined areas without adequate ventilation. Areas of inadequate ventilation could contain concentrations high enough to cause eye irritation, headaches, respiratory discomfort or nausea. Avoid breathing dust, fume, gas, mist, vapors, or spray. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty container contains product residue which may exhibit hazards of the product. Dispose of packaging or containers in accordance with local, regional, national, and international regulations. Store away from strong oxidizers

Max Store Temp: 40°C / 104°F
8. Exposure Controls/Personal Protection

Exposure Limits
Guidelines by component
Mineral Oil (mists)
  OSHA TWA:  5 mg/m³
  ACGIH TWA:  5 mg/m³
  TWA (Canada) 5 mg/m³
  STEL (Canada) 10 mg/m³
  EH40-MEL 5 mg/m³, 8 hours
  NOHSC 5 mg/m³, 8 hours

Other Exposure Limits: None known

Engineering Controls: Use in a well ventilated area. Where possible, cover sources of oil sprays and mists with adsorbent cloth to minimize exposure to mineral oil mists. Keep concentrations of mist below exposure limits

Personal Protective Equipment
Respiratory: Where mineral oil mists are generated – use full face respirator with organic vapor cartridge.

Eye: Wear safety glasses where splashing or splattering may occur

Gloves: Use nitrile or neoprene gloves. If material is hot, use appropriately insulated gloves.

Clothing: Use neoprene or nitrile gloves. When handling at elevated temperatures, use insulated apron or coat. Launder contaminated clothing before reuse

Hygiene: Wash thoroughly after handling this product.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light amber liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Petroleum</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Initial Boiling Pt/Rng</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
Flash Point  > 93°C / 199°F (estimated based on components)
Evaporation Rate  Nil (where nBuAc = 1)
Upper Flammable Lm  Not determined
Lower Flammable Lm  Not determined
Explosive Data  Not determined
Vapor Pressure  0.013 torr @ 25°C / 68°F
Vapor Density  Not determined
Volatile Organics  Not determined
Density  0.9 mg/cu. cm @ 15.6°C
Solubility  Insoluble in water, alcohols; soluble in organics
K_{ow}  Not determined
Viscosity  20 mm/s² @ 40°C
Autoignition Point  Not determined
Decomposition Temp  Not determined

10. Stability and Reactivity

Stability  Material is normally stable at normal temperatures and pressures
Decomposition Temp  Not determined
Incompatibility  Oxidizers and reducers
Polymerization  Will not occur
Thermal Decomposition  Smoke, oxides of carbon, sulfur and nitrogen
Conditions to Avoid  Keep away from heat, flames, strong oxidizers and strong reducing agents

11. Toxicological Information

- Acute Exposure -

Eye Irritation  Not expected to cause eye irritation by acute exposure. Prolonged or repeated exposure may cause irritation
Skin Irritation  Not expected to cause skin irritation by acute exposure. Prolonged or repeated exposure may cause irritation, or dryness/cracking of the skin.
Respiratory Irritation  Mists of mineral oils, if inhaled, may be irritating. Acute exposure above the permissible
Dermal Toxicity  Not expected to be toxic to the skin.
Inhalation Toxicity  Inhalation of this product is not expected to be toxic. Exposure to mineral oil mists may be harmful. Symptoms of over-exposure to mineral oil mists may be similar to that of pneumonia.
Oral Toxicity
Not expected to be harmful. LD50 in rats exceeds 5g/Kg.

Aspiration Hazard
This product does not present a classifiable hazard of aspiration due to viscosity - however, this product may be fatal if swallowed and enters airways, particularly in those with weakened respiratory systems.

- Chronic Exposure -

Chronic Toxicity
No data available to indicate product or components present at greater than 0.2% are chronic health hazards

Carcinogenicity
This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

Mutagenicity
No data available to indicate product or any components at greater than 0.1% are mutagenic or genotoxic.

Reproductive Toxicity
No data available to indicate product or any components at greater than 0.1% may cause reproductive toxicity.

Teratogenicity
No data available to indicate product or any components at greater than 0.1% may cause teratogenic effects.

- Additional Information -

Other
No other health hazards known

12. Ecological Information

- Environmental Toxicity -

Miscellaneous
No LD/LC/EC50 data was collected for this product. Classification is based on classification of components and summation formula. Expected to be very toxic to aquatic organisms with chronic, long-lasting effects.

- Environmental Fate -

Biodegradation
The petroleum oil in this product is not readily biodegradable, but can be broken down by microorganisms and is therefore considered to be inherently biodegradable. Some components of this product may persist in the environment

Bioaccumulation
The petroleum oil in this product has a Kow greater than 5.3 and is regarded as having the potential to bioaccumulate. In practice, metabolic processes may reduce this potential.

Soil Mobility
This product is expected to have low soil mobility due to very low water solubility and low vapor pressure. Petroleum oils adsorb to soil and sediment. Once adsorbed, the product is expected to adhere to soil until it is slowly biodegraded.

Other Effects
Product will produce oil sheen and float on the surface of bodies of water. The product will spread across the surface
as a function of viscosity and velocities of water and surface wind.

13. Disposal Considerations

Disposal Considerations
All disposal practices must be in accordance with local, regional, national, and international regulations. Do not dispose in a landfill. Wherever possible, recycle product to used oil collection facilities in accordance with applicable regulations.

Contaminated Containers or Packaging
Dispose of packaging or containers in accordance with local, regional, national, and international regulations.

14. Transportation Information

Description shown may not apply to all shipping situations. Consult applicable shipping codes to determine any additional shipping requirements.

US DOT
Not Regulated
*If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil)

UN No
Not applicable
UN Proper Name
Not applicable
UN Class
Not applicable
Packing Group
Not applicable
Marine Pollutant
*Yes
*Product contains petroleum oil which may be classified as a marine pollutant under MARPOL Annex I under certain shipping conditions

IMDG
Not Regulated
*U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I.

ICAO/IATA
Not Regulated
*U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23, & 24.

15. Regulatory Information

- Global Chemical Inventories -

USA
All components of this material are on the US TSCA or are exempt

Other TSCA Reg.
None known

EU
Components of this product comply with EU 7th Amendment and are approved for EU sales. Records must be maintained and reported to EU only registrants if product is imported to
the EU. Third party importers are asked to report every EU import to Champion Brands, LLC.
All components are listed or exempted
All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List

- **New Zealand**
- **Canada**

**- Other U.S. Federal Regulations -**

**SARA Ext. Haz. Subst.** This product does not contain greater than 1.0% of any chemical on the SARA Extremely Hazardous Substances list.

**SARA Sect. 311/312**
- Acute Hazard: NO
- Chronic Hazard: NO
- Fire Hazard: NO
- Reactivity Hazard: NO

**CERCLA**
Sodium dodecylbenzenesulfonate (CAS # 25155-30-0)
1,000lbs.

- **State Regulations -**

**CA Prop 65**
This product does not contain ingredients known to the State of California to cause cancer, reproductive toxicity or birth defects

- **Other -**

### 1. Other Information

Revision updates may be in many sections and the MSDS should be read in its entirety.
Prepared according to the UN Globally Harmonized System for the Classification and Labeling of Chemicals (GHS) by Champion LLC, 1001 Golden Drive, Clinton, Missouri 64735.

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