Safety Data Sheet
CAT HYDRAULIC OIL ADDITIVE

Section 1. Identification

GHS product identifier : CAT HYDRAULIC OIL ADDITIVE
Other means of identification : Not available.
Product type : Liquid
Product code : 8493000000
MSDS # : 1498

Relevant identified uses of the substance or mixture and uses advised against
Product use: For professional use only. : Industrial applications: Hydraulic fluids; Additive.
Supplier’s details : Chemtool Incorporated
801 West Rockton Road
Rockton, IL 61072  U.S.A.
Tel: 815.957.4140
Fax: 815.624.0292

Emergency telephone number : INFOTRAC
U.S. and Canada - 800.535.5053
Outside the U.S. and Canada - +1 352.323.3500

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture : Not classified.
GHS label elements : Not applicable.
Hazard pictograms : Not applicable.
Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.
Precautionary statements
Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.
Section 2. Hazards identification

Hazards not otherwise classified: None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Other means of identification</th>
<th>CAS number/other identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance</td>
<td>Not available.</td>
<td>3-hydroxy-2,2-bis(hydroxymethyl)propyl oleate</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Validated on 12/16/2014.
Section 5. Fire-fighting measures

**Extinguishing media**

| Suitable extinguishing media | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | None known. |

**Specific hazards arising from the chemical**

| Hazardous thermal decomposition products | Decomposition products may include the following materials: carbon dioxide carbon monoxide |

**Special protective actions for fire-fighters**

| Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |

**Special protective equipment for fire-fighters**

| Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**

| No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. |

**For emergency responders**

| If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

**Environmental precautions**

| Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

**Methods and materials for containment and cleaning up**

**Small spill**

| Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |

**Large spill**

| Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures**

| Put on appropriate personal protective equipment (see Section 8). |

**Advice on general occupational hygiene**

| Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

Validated on 12/16/2014.
Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

None.

**Appropriate engineering controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

**Appearance**

**Physical state**

Liquid [Clear to slightly hazy liquid.]

**Color**

Amber.

**Odor**

Faint odor. Sweetish.

**Odor threshold**

Not available.

**pH**

Not applicable.

**Melting point**

Not available.

Validated on 12/16/2014.
### Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point</td>
<td>&gt;290°C (&gt;554°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Open cup: 285°C (545°F) [Cleveland.]</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Slightly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.0013 kPa (0.01 mm Hg) [room temperature]</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.94 to 0.96 g/cm³ [25°C (77°F)]</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in the following materials: cold water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt;300°C (&gt;572°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;285°C (545°F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>VOC</td>
<td>&lt;0.1 %</td>
</tr>
<tr>
<td>VOC Method</td>
<td>EPA Method 24- Determination of Volatile Matter Content; ASTM D 2369</td>
</tr>
<tr>
<td></td>
<td>&quot;Standard Test Method for Volatile Content of Coatings&quot;</td>
</tr>
</tbody>
</table>

### Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>

### Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Effect</th>
<th>Conclusion/Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Irritation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Sensitization not suspected for humans.</td>
</tr>
</tbody>
</table>

Validated on 12/16/2014.
## Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>There are no data available on the mixture itself. Mutagenicity not suspected for humans.</th>
</tr>
</thead>
</table>

### Carcinogenicity

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>There are no data available on the mixture itself. Carcinogenicity not suspected for humans.</th>
</tr>
</thead>
</table>

### Reproductive toxicity

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>There are no data available on the mixture itself. Not considered to be dangerous to humans, according to our database.</th>
</tr>
</thead>
</table>

### Teratogenicity

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>There are no data available on the mixture itself. Teratogenicity not suspected for humans.</th>
</tr>
</thead>
</table>

### Specific target organ toxicity (single exposure)

- Not available.

### Specific target organ toxicity (repeated exposure)

- Not available.

### Aspiration hazard

- Not available.

### Information on the likely routes of exposure

<table>
<thead>
<tr>
<th>Routes of entry anticipated: Oral, Dermal, Inhalation.</th>
</tr>
</thead>
</table>

### Potential acute health effects

#### Eye contact

- No known significant effects or critical hazards.

#### Inhalation

- No known significant effects or critical hazards.

#### Skin contact

- No known significant effects or critical hazards.

#### Ingestion

- No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

#### Eye contact

- No specific data.

#### Inhalation

- No specific data.

#### Skin contact

- No specific data.

#### Ingestion

- No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Not available.

#### Long term exposure

- Not available.

### Potential chronic health effects

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>General</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Validated on 12/16/2014.
Section 11. Toxicological information

Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates
Not available.

Section 12. Ecological information

Toxicity

Conclusion/Summary: Not classified as dangerous

Persistence and degradability

Conclusion/Summary: This product has not been tested for biodegradation. Expected to be biodegradable. This product is not expected to bioaccumulate through food chains in the environment.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT HYDRAULIC OIL ADDITIVE</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

Bioaccumulative potential
Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}): Not available.
Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Validated on 12/16/2014.
Section 14. Transport information

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
<th>-</th>
<th>-</th>
<th>-</th>
<th>-</th>
<th>-</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

Section 15. Regulatory information

U.S. Federal regulations:
- TSCA 8(a) CDR Exempt/Partial exemption: Not determined
- United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs):
- Not listed

Clean Air Act Section 602 Class I Substances:
- Not listed

Clean Air Act Section 602 Class II Substances:
- Not listed

DEA List I Chemicals (Precursor Chemicals):
- Not listed

DEA List II Chemicals (Essential Chemicals):
- Not listed

SARA 302/304
- Composition/information on ingredients
  - No products were found.

SARA 304 RQ: Not applicable.

SARA 311/312
- Classification: Not applicable.

SARA 313

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td>No listed substance</td>
<td></td>
</tr>
<tr>
<td>Supplier notification</td>
<td>No listed substance</td>
<td></td>
</tr>
</tbody>
</table>

Validated on 12/16/2014.
Section 15. Regulatory information

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Connecticut Carcinogen Reporting : None of the components are listed.
Connecticut Hazardous Material Survey : None of the components are listed.
Florida substances : None of the components are listed.
Illinois Chemical Safety Act : None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act : None of the components are listed.
Louisiana Reporting : None of the components are listed.
Louisiana Spill : None of the components are listed.
Massachusetts Spill : None of the components are listed.
Massachusetts Substances : None of the components are listed.
Michigan Critical Material : None of the components are listed.
Minnesota Hazardous Substances : None of the components are listed.
New Jersey Spill : None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act : None of the components are listed.
New Jersey Hazardous Substances : None of the components are listed.
New York Acutely Hazardous Substances : None of the components are listed.
New York Toxic Chemical Release Reporting : None of the components are listed.
Pennsylvania RTK Hazardous Substances : None of the components are listed.
Rhode Island Hazardous Substances : None of the components are listed.
California Prop. 65 : None of the components are listed.

International regulations


International lists

National inventory

Australia : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : All components are listed or exempted.
Malaysia : All components are listed or exempted.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.

Canada

WHMIS (Canada) : Not controlled under WHMIS (Canada).

Canadian lists

Canadian NPRI : None of the components are listed.
CEPA Toxic substances : None of the components are listed.

Validated on 12/16/2014.
Section 15. Regulatory information

Canada inventory; DSL/NDSL

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision : 12/16/2014.
Date of previous issue : 12/10/2014.
Version : 1.02

Regulatory Department, Chemtool Inc.

Key to abbreviations

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
UN = United Nations

Notice to reader

Validated on 12/16/2014.
Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.