1. IDENTIFICATION

Product Identifier
Product Name Warren AW Hydraulic Oil

Other means of identification AW 32, AW 46, AW 68
SDS # WOC-012

Recommended use of the chemical and restrictions on use
Recommended Use Hydraulic oil

Details of the supplier of the safety data sheet
Supplier Address Warren Oil Company, LLC
915 E. Jefferson Ave.
West Memphis, AR 72301

Emergency Telephone Number
Company Phone Number 1-800-428-9284
Emergency Telephone (24 hr) CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Appearance Light amber, liquid
Physical State Liquid
Odor Typical petroleum

Classification
This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated heavy paraffinic</td>
<td>64742-54-7</td>
<td>90-100</td>
</tr>
<tr>
<td>Severely Hydrotreated Heavy Naphthenic Petroleum Oil</td>
<td>64742-52-5</td>
<td>90-100</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.**

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact Flush eyes with large amounts of water, for at least 15 minutes, until irritation subsides. If irritation persists get medical attention.
**Skin Contact**
No treatment is necessary under ordinary circumstances. Remove contaminated clothing and shoes. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs and persists, seek medical attention. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should seek immediate medical attention.

**Inhalation**
Remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion**
If swallowed, do not induce vomiting. If victim exhibits signs of lung aspiration such as coughing or choking, seek immediate medical attention.

Most important symptoms and effects

**Symptoms**
Expected to be a minor eye irritant. Repeated or prolonged skin contact may cause dermatitis.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**
Treat symptomatically.

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**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**
Use dry chemical, foam, carbon dioxide or water fog.

**Unsuitable Extinguishing Media**
While carbon dioxide and inert will extinguish the fire, they can also displace oxygen. Use caution when applying carbon dioxide or inert gas in confined spaces.

**Specific Hazards Arising from the Chemical**
This material can burn but will not readily ignite. This material will release vapors when heated above the flashpoint temperature that can ignite when exposed to a source of ignition. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flashpoint. Dense smoke may be generated while burning.

**Hazardous Combustion Products**

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid breathing smoke and vapor. Water may be used to cool containers exposed to heat or flame.

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**6. ACCIDENTAL RELEASE MEASURES**

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

**Personal Precautions**
Use personal protective equipment as required.

**Methods and material for containment and cleaning up**

**Methods for Containment**
Remove sources of ignition. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Clean-Up**
Take up small spills with absorbent pads. Large spills may be taken up with pump or vacuum.
7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities


Incompatible Materials This product may react with 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>Severely Hydrotreated Heavy Naphthenic Petroleum Oil 64742-52-5</td>
<td>TWA: 5 mg/m³ (oil mist) STEL: 10 mg/m³ (oil mist)</td>
<td>TWA: 5mg/m³ (oil mist) STEL: none estab.</td>
<td>TWA: none estab. STEL: none estab.</td>
</tr>
<tr>
<td>Severely Hydrotreated Heavy Naphthenic Petroleum Oil 64742-52-5</td>
<td>TWA: 5 mg/m³ (oil mist) STEL: 10 mg/m³ (oil mist)</td>
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<td>TWA: none estab. STEL: none estab.</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces. If product is heated above 70 C (155 F) in the presence of water, hydrogen sulfide vapors may be released. Ventilation should be sufficient to keep hydrogen sulfide levels below recommended exposure limits. Eye wash fountains are recommended.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses. Wear chemical goggles or face shield if splash or mist occurs.

Skin and Body Protection Use impervious gloves for prolonged contact. Wear oil-impervious garments if contact is unavoidable.

Respiratory Protection If mist is generated (heating, spraying) and engineering controls are not sufficient, wear approved organic vapor respirator suitable for oil mist.

General Hygiene Considerations Use good hygiene when handling petroleum product. Launder contaminated clothing before reuse. Excessive misting may cause slippery floors - wear appropriate footwear.

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>pH</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Physical State</td>
<td>Viscous liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Light amber, viscous liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Light amber</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Typical petroleum</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>
### Boiling Point/Boiling Range
Not available

### Flash Point
202 °C / 396 °F

### Evaporation Rate
Not available

### Flammability (Solid, Gas)
Liquid-Not applicable

### Upper Flammability Limits
Not determined

### Lower Flammability Limit
Not determined

### Vapor Pressure
Not available

### Vapor Density
>1 (Air=1)

### Specific Gravity
0.87

### Water Solubility
insoluble

### Solubility in other solvents
Not determined

### Partition Coefficient
Not available

### Auto-ignition Temperature
No data available

### Decomposition Temperature
Not determined

### Kinematic Viscosity
Not determined

### Dynamic Viscosity
Not determined

### Explosive Properties
Not determined

### Oxidizing Properties
Not determined

#### 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**
Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions to Avoid**
Avoid formation of mists. Extreme heat, open flames or sparks. Keep separated from incompatible substances.

**Incompatible Materials**
This product may react with strong oxidizing agents.

**Hazardous Decomposition Products**
Decomposition of this product may yield oxides of boron, calcium, magnesium, nitrogen, phosphorus, sulfur including hydrogen sulfide and zinc as well as carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

#### 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

**Eye Contact**
Avoid contact with eyes.

**Skin Contact**
Avoid contact with skin.

**Inhalation**
Do not inhale.

**Ingestion**
Do not ingest.
**Component Information**

**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**

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**

Not determined

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12. **ECOLOGICAL INFORMATION**

**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**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>Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7</td>
<td>5000: 96 h Oncorhynchus mykiss mg/L LC50</td>
<td></td>
<td>1000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>Severely Hydrotreated Heavy Naphthenic Petroleum Oil 64742-52-5</td>
<td>5000: 96 h Oncorhynchus mykiss mg/L LC50</td>
<td></td>
<td>1000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
</tbody>
</table>

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined.

**Other Adverse Effects**

Not determined

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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.
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>Petroleum distillates, hydrotreated heavy paraffinic</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td></td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Severely Hydrotreated Heavy Naphthenic Petroleum Oil</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</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, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 311/312 Hazard Categories

- **Acute Health Hazard**  
  No
- **Chronic Health Hazard**  
  No
- **Fire Hazard**  
  No
- **Sudden Release of Pressure Hazard**  
  No
- **Reactive Hazard**  
  No

SARA 313  
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)  
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations
California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations
This product does not contain any substances regulated under applicable state right-to-know regulations

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>0</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>
<th>Physical Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>1</td>
<td>0</td>
<td></td>
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</table>

Issue Date: 22-Oct-2012
Revision Date: 27-Mar-2015
Revision Note: New format

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