1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

GHS product identifier : Synthetic EP Industrial Gear Oil ISO-680
Code : 509
Product type : Liquid.

Identified uses
Lubricating oil. Not to be misted.

Details of the supplier of the safety data sheet
Manufacturer Address : U.S. Lubricants, A Division of U.S. Venture, Inc.
425 Better Way
Appleton, WI 54915

Emergency telephone number
Company Phone Number 800-490-4900
24 Hour Emergency Phone Number 800-688-4005  DTCG84-01-A-900043

2. HAZARDS IDENTIFICATION

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : SKIN SENSITIZATION – Category 1
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 90.6%
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 90.6%

GHS label elements
Hazard pictograms :

Signal word : Warning
Hazard statements : May cause an allergic skin reaction.

Precautionary statements
Prevention : Wear protective gloves. Avoid breathing vapor. Contaminated work clothing should not be allowed out of the workplace.
Response : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
Storage : Not applicable.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified : None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture : Mixture
Other means of :

Not available.
identification

CAS number/other identifiers

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>0.1 - 1</td>
<td>-</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.

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. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.

Skin contact: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. 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: May cause an allergic skin reaction

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: Adverse symptoms may include the following: irritation

Ingestion: No known significant effects or critical hazards.

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)
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 : No specific fire or explosion hazard.
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters
Special protective equipment for fire-fighters : No special protection is required.
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
For non-emergency personnel : Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders : If specialized 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 nonemergency 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
Spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. 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 via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Avoid contact with used product. Do not reuse container.
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. See also Section 8 for additional information on hygiene measures.
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.

8. EXPOSURE CONTROLS/PERSO

Control parameters

Occupational exposure limits

Under conditions which may generate mists, the following exposure limits are recommended:
ACGIH TLV TWA: 5 mg/m³; STEL: 10 mg/m³.

Appropriate engineering controls
Environmental exposure controls

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 sideshields.

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 supplied air 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state: Liquid.
Color: Yellow
Odor: Sulfur [Slight]
Odor threshold: Not available.
PH: Not available.
Melting point / Pour point: -30°C (-22°F)
Boiling point: Not available.
Flash point: Open cup: 244°C (471°F) [Cleveland.]
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
10. STABILITY AND REACTIVITY

Reactivity:
No specific test data related to reactivity available for this product or its ingredients.

Chemical stability:
The product is stable.

Possibility of hazardous reactions:
Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:
No specific data.

Incompatible materials:
Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products:
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity
There is no data available.

Irritation/Corrosion
There is no data available.

Sensitization
There is no data available.

Carcinogenicity
There is no data available.

Specific target organ toxicity (single exposure)
There is no data available.

Specific target organ toxicity (repeated exposure)
There is no data available.

Aspiration hazard
There is no data available.

Information on the likely routes of exposure

Potential acute health effects
Dermal contact. Eye contact. Inhalation. Ingestion.

Eye contact:
No known significant effects or critical hazards.

Inhalation:
No known significant effects or critical hazards.

Skin contact:
May cause an allergic skin reaction.

Ingestion:
No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact:
No known significant effects or critical hazards.

Inhalation:
No known significant effects or critical hazards.

Skin contact:
Adverse symptoms may include the following:
irritation
redness
Ingestion: No known significant effects or critical hazards.

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

**Short term exposure**
- Potential immediate effects: No known significant effects or critical hazards.
- Potential delayed effects: No known significant effects or critical hazards.

**Long term exposure**
- Potential immediate effects: No known significant effects or critical hazards.
- Potential delayed effects: No known significant effects or critical hazards.
- Potential chronic health effects: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity**
- No known significant effects or critical hazards.

**Mutagenicity**
- No known significant effects or critical hazards.

**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**
- There is no data available.

---

### 12. ECOLOGICAL INFORMATION

**Toxicity**
- There is no data available.

**Persistence and degradability**
- There is no data available.

**Bioaccumulative potential**
- There is no data available.

**Mobility in soil**
- There is no data available.

**Soil/water partition coefficient (Koc)**
- There is no data available.

**Other adverse effects**
- No known significant effects or critical hazards.

---

### 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 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. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>UN number</th>
<th>DOT Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Not regulated.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

AERG : Not applicable.

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.

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 304 RQ:
- Not applicable.

SARA 302/304:
- No products were found.

SARA 311/312:
- Immediate (acute) health hazard

Composition/information on ingredients:

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amines, C12-14-tert alkyl</td>
<td>0.1 - 1</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
</tbody>
</table>

State regulations:
- Massachusetts: None of the components are listed.
- New York: None of the components are listed.
- New Jersey: None of the components are listed.
- Pennsylvania: None of the components are listed.
- California Prop. 65: None of the components are listed.

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl acrylate</td>
<td>Yes.</td>
<td>No.</td>
<td>.No.</td>
<td>No.</td>
</tr>
</tbody>
</table>
International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>List name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not listed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Montreal Protocol (Annexes A, B, C, E)

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>List name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not listed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stockholm Convention on Persistent Organic Pollutants

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>List name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not listed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rotterdam Convention on Prior Inform Consent (PIC)

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>List name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not listed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

UNECE Aarhus Protocol on POPs and Heavy Metals

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>List name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not listed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

History
Date of issue mm/dd/yyyy : 03/15/2014
Date of previous issue : 09/15/2013
Version : 5
Prepared by : US Lubricants

Notice to reader
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.

End of Safety Data Sheet