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

Product identifier
Product Name Cone Drive Harmonic Solutions® High Performance L1 Grease

Other means of identification
Product code: LUEHSGREASE-01

Recommended use of the chemical and restrictions on use
Recommended Use Lubricant.
Uses advised against Consumer use

Details of the supplier of the safety data sheet
Supplier Address
Cone Drive
240 East 12th Street
Traverse City, Michigan 49684
Phone: (231) 360-7589

Emergency telephone number CHEMTREC 1-800-424-9300 / +1 703-527-3887 CCN 841828
NON-EMERGENCY 231-360-7589

2. HAZARD IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Serious eye damage/eye irritation | Category 2 |

Label Elements

EMERGENCY OVERVIEW

Signal word Warning

Hazard statements
Causes serious eye irritation
3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Paste</th>
<th>Physical state</th>
<th>Solid</th>
<th>Odor</th>
<th>Mild</th>
</tr>
</thead>
</table>

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection
**Eyes**: 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

**Hazards not otherwise classified (HNOC)**

**Other information**
- Causes mild skin irritation
- Harmful to aquatic life with long lasting effects

**Unknown Acute Toxicity**
1.5114% of the mixture consists of ingredient(s) of unknown toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)</td>
<td>4259-15-8</td>
<td>1 - 5%</td>
<td>*</td>
</tr>
<tr>
<td>bis(Nonylphenyl)amine</td>
<td>36878-20-3</td>
<td>1 - 5%</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

**First aid measures**

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin contact:** Rinse with plenty of water. If skin irritation persists, call a physician.

**Inhalation:** Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.

**Ingestion:** Do not induce vomiting. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms:** No information available.

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

**Notes to physician:** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**
Carbon dioxide (CO2). Dry chemical. Dry sand. Water spray mist or foam.
Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapors. Water may be used to cool closed containers.

Hazardous combustion products

Explosion data
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

Special protective equipment for firefighters:
In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions:
Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Environmental precautions

Environmental precautions:
Do not allow material to contaminate ground water system. Prevent product from entering drains. Avoid subsoil penetration.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up:
Scrape-up. Shovel into suitable container for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling
Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Keep cool. Keep in properly labelled containers. Keep away from direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines
Contains mineral oil, vegetable oil, and/or synthetic oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg/m³, ACGIH STEL of 10 mg/m³.

Appropriate engineering controls

Engineering measures to reduce exposure:
Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment
Respiratory protection: No personal respiratory protective equipment normally required.
Hand protection: Gloves made of plastic or rubber
Eye protection: Avoid contact with eyes
Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect.
General Hygiene Considerations: Avoid contact with skin, eyes and clothing

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>Melting point/freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 238 °C / &gt; 460 °F</td>
<td>ISO 2592</td>
</tr>
<tr>
<td>Flammability (solid, gas) Upper</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>flammability limit: Vapor</td>
<td>&lt; 0.001 hPa, 20 °C</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air Lower</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit: Vapor</td>
<td>&lt; 0.001 hPa, 20 °C</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.9</td>
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<td></td>
</tr>
<tr>
<td>Other information</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Not applicable

Chemical stability

Stability: Stable under normal conditions

Possibility of Hazardous Reactions
Possibility of Hazardous Reactions
Hazardous polymerization
None under normal processing.
Hazardous polymerization does not occur.

Conditions to avoid

 Conditions to avoid
Heat, flames and sparks

Hazardous Decomposition Products

Hazardous Decomposition Products
None under normal processing

Incompatible materials

Incompatible materials
Strong oxidising agents

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
Product does not present an acute toxicity hazard based on known or supplied information

Eye contact
Irritating to eyes.

Skin contact
Prolonged contact may cause redness and irritation.

Inhalation
Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.

Ingestion
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

<table>
<thead>
<tr>
<th>Components</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc bis[(O,O-bis(2-ethylhexyl)] bis(dithiophosphate) - 4259-15-8</td>
<td>= 3100 mg/kg (Rat)</td>
<td>&gt; 5000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>bis[(Nonylphenyl)amine - 36878-20-3</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
No sensitization responses were observed.

Mutagenic effects:
Did not show mutagenic or teratogenic effects in animal experiments.

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

Reproductive toxicity
This product does not contain any known or suspected reproductive hazards.

STOT - Single Exposure
None under normal use conditions.

STOT - Repeated Exposure
None under normal use conditions.

Aspiration hazard
Not applicable.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity
1.5114% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 5155 mg/kg
ATEmix (dermal) 5332 mg/kg
ATEmix (inhalation-dust/mist) 6.3 mg/l

12. ECOLOGICAL INFORMATION
Ecotoxicity

Harmful to aquatic life with long lasting effects

1.5114009% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Components</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc bis(O,O-bis(2-ethylhexyl)) bis(dithiophosphate) - 4259-15-8</td>
<td>2.86</td>
</tr>
</tbody>
</table>

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

The product is insoluble and floats on water.

<table>
<thead>
<tr>
<th>Components</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc bis(O,O-bis(2-ethylhexyl)) bis(dithiophosphate) - 4259-15-8</td>
<td>2.86</td>
</tr>
</tbody>
</table>

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
Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT
Not Regulated

IATA-DGR
Not Regulated

IMO / IMDG
Not Regulated

15. REGULATORY INFORMATION

International Inventories
TSCA: Listed in TSCA
Cone Drive Harmonic Solutions® High Performance L1 Grease

Revision Date: 26-Sep-2018

DSL: All of the components in this product are listed in DSL
EINECS/ELINCS: This product complies with EINECS/ELINCS
CHINA: This product complies with China IECSC.
KECL: This product does not comply with Korea KECL.
PICCS: This product complies with Philippines PICCS.
AICS: All the constituents of this material are listed on the Australian AICS

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

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Components</th>
<th>SARA 313 Threshold:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc bis[(O,O-bis(2-ethylhexyl)] bis(dithiophosphate)</td>
<td>Zinc compound (1%)</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

- **Acute Health Hazard**: Yes
- **Chronic Health Hazard**: No
- **Fire Hazard**: No
- **Sudden release of pressure hazard**: No
- **Reactive Hazard**: No

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)

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). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

State Regulations (RTK)

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Components</th>
<th>NJRTK:</th>
<th>MARTK:</th>
<th>PARTK:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc bis[(O,O-bis(2-ethylhexyl)] bis(dithiophosphate) - 4259-15-8</td>
<td>Substance no. 3012 Listed</td>
<td>Not Listed</td>
<td>Listed</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA:
Health:  1
Flammability:  1
Instability  0
NFPA/HMIS * for Carc, Muta, Tera, Specific Organ *
HMIS health rating:
Health:  1
Flammability:  1
Physical hazards  0
Personal protection  B

Issue Date  26-Sep-2018
Revision Date  26-Sep-2018
Revision Note
Not applicable

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