

# Safety Data Sheet

## Open Gear - All Seasons

Revision date 05-Feb-2015

Version 1

### 1. IDENTIFICATION

#### 1.1. Product identifier

**Product name** Open Gear - All Seasons  
**Synonyms** None

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended use** Lubricating grease  
**Uses advised against** No information available

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** D-A Lubricant Company, Inc.  
801 Edwards Drive  
Lebanon, IN 46052 USA  
317-923-5321

#### 1.4. Emergency telephone number

**ChemTel Emergency telephone** 1-800-255-3924  
**International Emergency telephone** +01-813-248-0585

### 2. HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.2. Label elements

**Signal word** Warning

#### 2.2. Symbols/Pictograms



#### 2.3. Hazards not otherwise classified (HNOC)

May be harmful in contact with skin. Causes mild skin irritation. Harmful to aquatic life with long lasting effects.

#### 2.4. Other information

0.35950001% of the mixture consists of ingredient(s) of unknown toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. Mixtures

| Chemical name   | CAS No     | weight-% |
|---|------------|----------|
| Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (2:1) | 68649-42-3 | <2.5     |
| Zinc Carboxylate Mixture  | UNKNOWN    | 0.1-1    |

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

**Ingredient comments** This product is a lithium grease based on mineral oil with additives. The mineral oils in the product contain <3% DMSO extract(IP 346).

### 4. FIRST AID MEASURES

#### 4.1. Description of first aid measures

**Inhalation** Move to fresh air in case of accidental inhalation of vapors or decomposition products.

**Skin contact** Wash skin with soap and water.

**Eye contact** Rinse thoroughly with plenty of water, also under the eyelids.

**Ingestion** Do not induce vomiting without medical advice. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms** None known.

#### 4.3. Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

**Suitable extinguishing media** Use CO2, dry chemical, or foam.

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire.

#### 5.2. Special hazards arising from the substance or mixture

Not flammable. Fire may produce irritating and/or toxic gases.

**Hazardous combustion products** Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

#### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Extremely slippery when spilled. Avoid contact with eyes and skin. Avoid breathing vapors or mists. Use personal protection recommended in Section 8.

**For emergency responders** Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

### 6.3. 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** Use personal protective equipment as required. Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Advice on safe handling** Extremely slippery when spilled. Avoid prolonged or repeated contact with skin. Avoid breathing vapors or mists.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Keep at a temperature not exceeding 45°C.

**Incompatible materials** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure guidelines

| Chemical name        | ACGIH TLV  | OSHA PEL   | NIOSH IDLH  |
|----------------------|--|--|---|
| Limestone            |  | TWA: 15 mg/m <sup>3</sup> total dust<br>TWA: 5 mg/m <sup>3</sup> respirable fraction<br>(vacated) TWA: 15 mg/m <sup>3</sup> total dust<br>(vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction | TWA: 10 mg/m <sup>3</sup> total dust<br>TWA: 5 mg/m <sup>3</sup> respirable dust  |
| Carbon Black         | TWA: 3 mg/m <sup>3</sup> inhalable fraction  | TWA: 3.5 mg/m <sup>3</sup><br>(vacated) TWA: 3.5 mg/m <sup>3</sup>   | IDLH: 1750 mg/m <sup>3</sup><br>TWA: 3.5 mg/m <sup>3</sup><br>TWA: 0.1 mg/m <sup>3</sup> Carbon black in presence of Polycyclic aromatic hydrocarbons PAH |
| Molybdenum disulfide | TWA: 10 mg/m <sup>3</sup> Mo inhalable fraction<br>TWA: 3 mg/m <sup>3</sup> Mo respirable fraction | TWA: 15 mg/m <sup>3</sup> total dust<br>(vacated) TWA: 10 mg/m <sup>3</sup> Mo   | IDLH: 5000 mg/m <sup>3</sup> Mo   |

|        |  |  |   |
|--------|--|--|---|
| Silica | TWA: 0.025 mg/m <sup>3</sup> respirable fraction | (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust<br>: (30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA total dust<br>: (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction<br>: (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction | IDLH: 50 mg/m <sup>3</sup> respirable dust<br>TWA: 0.05 mg/m <sup>3</sup> respirable dust |
|--------|--|--|---|

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**8.2. Exposure controls**

**Engineering controls** Eyewash stations  
Ventilation systems

**8.3. Individual protection measures, such as personal protective equipment**



**Hand protection** Wear protective nitrile rubber gloves. Thickness ≥ 0.38 mm - breakthrough time >480 minutes. Thickness 0.1 mm - splash protection.

**Eye/face Protection** No special technical protective measures are necessary.

**Skin and body protection** No special technical protective measures are necessary.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

|                |                          |
|----------------|--------------------------|
| Appearance     | Smooth                   |
| Physical state | Semi-solid               |
| Color          | black                    |
| Odor           | No information available |
| Odor threshold | No information available |

| <u>Property</u>              | <u>Values</u>       | <u>Remarks • Method</u>  |
|------------------------------|---------------------|--------------------------|
| pH                           |                     | Not applicable           |
| Melting point/freezing point |                     | No information available |
| Boiling point/boiling range  |                     | Not applicable           |
| Flash point                  | > 150 °C / > 302 °F | Based on base oils       |
| Evaporation rate             |                     | Not applicable           |
| Flammability (solid, gas)    |                     | No information available |
| Flammability limits in air   |                     | No information available |
| Upper flammability limit     |                     |                          |
| Lower flammability limit     |                     |                          |

|   |                          |
|---|--------------------------|
| Vapor pressure                          | Not applicable           |
| Vapor Density                           | Not applicable           |
| Relative density                        | No information available |
| Water solubility                        | No information available |
| Solubility in other solvents            | No information available |
| Partition coefficient (n-octanol/water) | No information available |
| Autoignition temperature                | No information available |
| Decomposition temperature               | No information available |
| Kinematic viscosity                     | No information available |
| Dynamic viscosity                       | No information available |

**Other information**

Density < 1000 kg/m<sup>3</sup> @ 25 °C / 77 °F

**10. STABILITY AND REACTIVITY****10.1. Reactivity**

Stable.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

None under normal processing.

**10.4. Conditions to avoid**

Heat.

**10.5. Incompatible materials**

Strong oxidizing agents.

**10.6. Hazardous decomposition products**

None under normal processing.

**11. TOXICOLOGICAL INFORMATION****11.1. Information on likely routes of exposure**

|              |  |
|--------------|--|
| Inhalation   | Inhalation of oil mist may cause irritation, headaches, nausea and breathing difficulties. |
| Ingestion    | Malaise (vague feeling of discomfort).   |
| Skin contact | May be harmful in contact with skin.   |
| Eye contact  | May cause slight irritation.   |

**11.2. Information on toxicological effects**

Symptoms No information available.

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

|                                   |  |
|-----------------------------------|--|
| Skin corrosion/irritation         | Not hazardous based on component data. |
| Serious eye damage/eye irritation | Not hazardous based on component data. |
| Sensitization                     | Not hazardous based on component data. |
| Germ cell mutagenicity            | Not hazardous based on component data. |
| Carcinogenicity                   | Not hazardous based on component data. |

| Chemical name             | ACGIH | IARC     | NTP | OSHA |
|---------------------------|-------|----------|-----|------|
| Carbon Black<br>1333-86-4 | A4    | Group 2B |     | X    |

**Reproductive toxicity** Not hazardous based on component data.

**STOT-single exposure** Not hazardous based on component data.

**STOT-repeated exposure** Not hazardous based on component data.

**Aspiration hazard** Not hazardous based on component data.

#### 11.4. Numerical measures of toxicity

| Chemical name   | Oral LD50            | Dermal LD50               | LC50 (lethal concentration) |
|---|----------------------|---------------------------|-----------------------------|
| Phosphorodithioic acid,<br>O,O-di-C1-14-alkyl esters, zinc salts<br>(2:1)<br>68649-42-3 | = 3600 mg/kg ( Rat ) | > 20 000 mg/kg ( Rabbit ) | -                           |
| Zinc Carboxylate Mixture<br>UNKNOWN   | = 4920 mg/kg         | -                         | -                           |

**Acute toxicity** 0.35950001% 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)** 5163 mg/kg

**ATEmix (dermal)** 3042 mg/kg

## 12. ECOLOGICAL INFORMATION

### 12.1. Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Chemical name   | Algae/aquatic plants | Fish   | Toxicity to Microorganisms | Toxicity to daphnia and other aquatic invertebrates |
|---|----------------------|--|----------------------------|---|
| Phosphorodithioic acid,<br>O,O-di-C1-14-alkyl esters,<br>zinc salts (2:1)<br>68649-42-3 | -                    | 1.0 - 5.0: 96 h Pimephales<br>promelas mg/L LC50 static<br>10.0 - 35.0: 96 h Pimephales<br>promelas mg/L LC50<br>semi-static | -                          | 1 - 1.5: 48 h Daphnia magna<br>mg/L EC50            |

### 12.2. Persistence and degradability

Not readily biodegradable.

### 12.3. Bioaccumulative potential

Material does not bioaccumulate.

### 12.4. Mobility in soil

After release, adsorbs onto soil.

### 12.5. Results of PBT and vPvB assessment

No information available

### 12.6. Other adverse effects

No information available

### 13. DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

|                               |   |
|-------------------------------|---|
| <b>Disposal of wastes</b>     | Dispose of in accordance with federal, state and local regulations. Use personal protection recommended in Section 8. |
| <b>Contaminated packaging</b> | Dispose of in accordance with federal, state and local regulations.   |
| <b>US EPA waste number</b>    | No information available  |
| <b>Other information</b>      | Waste codes should be assigned by the user based on the application for which the product was used                    |

| Chemical name   | California hazardous waste status |
|---|-----------------------------------|
| Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (2:1)<br>68649-42-3 | Toxic                             |

### 14. TRANSPORT INFORMATION

#### 14.1. UN number

Not regulated

#### 14.2. UN proper shipping name

Not regulated

#### 14.3. Transport hazard class(es)

Not regulated

#### 14.4. Packing group

Not applicable

#### 14.5. Environmental hazards

None

#### 14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

#### 14.7. Special precautions for user

None

### 15. REGULATORY INFORMATION

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**CWA (Clean Water Act)** This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical name   | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|-----------------------------|------------------------|---------------------------|----------------------------|
| Phosphorodithioic acid,<br>O,O-di-C1-14-alkyl esters,<br>zinc salts (2:1)<br>68649-42-3 |                             | X                      |                           |                            |

#### International Inventories

|                      |          |
|----------------------|----------|
| <b>TSCA</b>          | Complies |
| <b>DSL/NDSL</b>      | Complies |
| <b>EINECS/ELINCS</b> | Complies |
| <b>ENCS</b>          | Complies |
| <b>IECSC</b>         | Complies |
| <b>KECL</b>          | Complies |

|              |          |
|--------------|----------|
| <b>PICCS</b> | Complies |
| <b>AICS</b>  | Complies |
| <b>NZIoC</b> | Complies |

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - 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

**NZIoC** - New Zealand Inventory of Chemicals

**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.

| Chemical name   | CAS No     | weight-% | SARA 313 - Threshold Values % |
|---|------------|----------|-------------------------------|
| Phosphorodithioic acid,<br>O,O-di-C1-14-alkyl esters, zinc salts<br>(2:1)<br>68649-42-3 | 68649-42-3 | <2.5     | 1.0                           |

**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 |

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals

| Chemical name            | California Proposition 65 |
|--------------------------|---------------------------|
| Carbon Black - 1333-86-4 | Carcinogen                |
| Silica - 14808-60-7      | Carcinogen                |

**U.S. State Right-to-Know Regulations****US State Regulations**

| Chemical name   | New Jersey | Massachusetts | Pennsylvania |
|---|------------|---------------|--------------|
| Limestone<br>1317-65-3  | X          | X             | X            |
| Phosphorodithioic acid,<br>O,O-di-C1-14-alkyl esters, zinc salts<br>(2:1)<br>68649-42-3 | X          |               | X            |
| Carbon Black<br>1333-86-4   | X          | X             | X            |
| Mineral Oil<br>64742-53-6   |            | X             |              |
| Silica<br>14808-60-7  | X          | X             | X            |

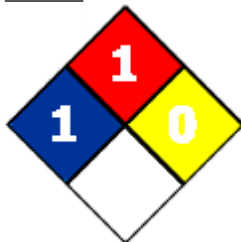
**U.S. EPA Label Information**



EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

|             |                  |                |                    |                       |
|-------------|------------------|----------------|--------------------|-----------------------|
| <u>HMIS</u> | Health hazards 1 | Flammability 1 | Physical hazards 0 | Personal protection p |
| <u>NFPA</u> | Health hazards 1 | Flammability 1 | Instability 0      | Special Hazard -      |



Revision date 05-Feb-2015

Revision note No information available

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 Material Safety Data Sheet