SAFETY DATA SHEET
CITGO Lithoplex® CM-2 Grease

Section 1. Identification

GHS product identifier: CITGO Lithoplex® CM-2 Grease
Synonyms: Lubricating grease;
            CITGO® Material Code: 655352001
Material uses: Lubricating grease
Code: 655352001
MSDS #: 655352001

Supplier's details: CITGO Petroleum Corporation
                    P.O. Box 4689
                    Houston, TX 77210
                    sdsvend@citgo.com

Emergency telephone number (with hours of operation): Technical Contact: (800) 248-4684
                                                    Medical Emergency: (832) 486-4700
                                                    CHEMTREC Emergency: (800) 424-9300
                                                    (United States Only)

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard
Classification of the substance or mixture: AQUATIC HAZARD (LONG-TERM) - Category 4

GHS label elements
Signal word: Warning
Hazard statements: May cause long lasting harmful effects to aquatic life. Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.

Precautionary statements
General: Avoid contact with eyes, skin and clothing. IF SWALLOWED: Do NOT induce vomiting. After handling, always wash hands thoroughly with soap and water. If you feel unwell, seek medical attention and show the label when possible. Keep out of reach of children.
Prevention: Avoid release to the environment.
Response: Not applicable.
Storage: Store in a dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.
Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified: Injection of petroleum hydrocarbons requires immediate medical attention.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Other means of identification: Lubricating grease;
                          CITGO® Material Code: 655352001

CAS number/other identifiers
CAS number: Not applicable.
**Section 3. Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>≥50 - ≤75</td>
<td>64742-52-5</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>≥10 - ≤25</td>
<td>64742-54-7</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent-dewaxed</td>
<td>≤10</td>
<td>64742-62-7</td>
</tr>
<tr>
<td>Lithium, 12-hydroxyoctadecanoate sebacate complexes</td>
<td>≤10</td>
<td>68815-49-6</td>
</tr>
<tr>
<td>Molybdenum disulphide</td>
<td>≤5</td>
<td>1317-33-5</td>
</tr>
<tr>
<td>Lithium, 12-hydroxyoctadecanoate sebacate complexes</td>
<td>≤10</td>
<td>68815-49-6</td>
</tr>
<tr>
<td>Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts</td>
<td>≤3</td>
<td>68649-42-3</td>
</tr>
</tbody>
</table>

* = Various  ** = Mixture  *** = Proprietary

Any concentration shown as a range is to protect confidentiality or is due to process 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. Continue to rinse for at least 10 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. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact**

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion**

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**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**: Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.
- **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**

In the event of injection in underlying tissue, immediate treatment should include extensive incision, debridement and saline irrigation. Inadequate treatment can result in ischemia and gangrene. Early symptoms may be minimal.
Section 4. First aid measures

**Specific treatments**
- Treat symptomatically and supportively.

**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.

See toxicological information (Section 11)

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**
- This material may cause long lasting harmful effects to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewers or drain.

**Hazardous thermal decomposition products**
- Decomposition products may include the following materials:
  - Carbon dioxide
  - Carbon monoxide
  - Sulfur oxides
  - Metal oxide/oxides

**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. 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 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). Water polluting material. May be harmful to the environment if released in large quantities.

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

**Small spill**
- Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill**
- Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. 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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. 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. 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. Remove contaminated clothing and protective equipment before entering eating areas. 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. See Section 10 for incompatible materials before handling or use.

Bulk Storage Conditions: Do not apply heat or flame to stockpiled material. Rotate stock to reduce the potential for hot spots. Do not store with oxidizers. Minimize dust creation by keeping material moist and/or covered.

Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016). TWA: 5 mg/m³ 10 hours. Form: Mist</td>
</tr>
<tr>
<td></td>
<td>STEL: 10 mg/m³ 15 minutes. Form: Mist</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016). TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016). TWA: 5 mg/m³ 10 hours. Form: Mist</td>
</tr>
<tr>
<td></td>
<td>STEL: 10 mg/m³ 15 minutes. Form: Mist</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016). TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent-dewaxed</td>
<td>ACGIH TLV (United States, 6/2013). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 4/2013). TWA: 5 mg/m³ 10 hours. Form: Mist</td>
</tr>
<tr>
<td></td>
<td>STEL: 10 mg/m³ 15 minutes. Form: Mist</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Lithium, 12-hydroxyoctadecanoate sebacate complexes</td>
<td>ACGIH TLV (United States). TWA: 10 mg/m³ 8 hours. Form: Inhaleble fraction</td>
</tr>
<tr>
<td>molybdenum disulphide</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 10 mg/m³, (as Mo) 8 hours. Form:</td>
</tr>
<tr>
<td></td>
<td>Inhalable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 3 mg/m³, (as Mo) 8 hours. Form: Respirable fraction</td>
</tr>
</tbody>
</table>
Section 8. Exposure controls/personal protection

### 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, vapor controls, 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 glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of 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 inhalation hazards exist, a full-face respirator may be required instead.

#### Skin protection

##### Hand protection
- Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.

##### 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
- Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, particulate filter 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**: Solid. [Smooth and adhesive]
- **Color**: Gray.
- **Odor**: Mild petroleum odor
- **pH**: Not available.
- **Boiling point**: Not available.
- **Flash point**: Open cup: >150°C (>302°F) [Estimated]
- **Evaporation rate**: <1 (n-butyl acetate. = 1)
- **Lower and upper explosive (flammable) limits**: Not available.
- **Vapor pressure**: <0.0013 kPa (<0.01 mm Hg) [room temperature]
- **Vapor density**: >10 [Air = 1]
- **Relative density**: 0.94

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**Date of previous issue**: No previous validation  
**Version**: 1  
**5/11**
Section 9. Physical and chemical properties

- **Density lbs/gal**: Estimated 7.84 lbs/gal
- **Density gm/cm³**: Not available.
- **Gravity, °API**: Estimated 19 @ 60 F
- **Solubility**: Insoluble in the following materials: cold water.
- **Flow time (ISO 2431)**: Not available.
- **NLGI Grade**: 2

Section 10. Stability and reactivity

- **Reactivity**: Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).
- **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**: No specific data.

Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated heavy paraffinic molybdenum disulphide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD Dermal</td>
<td>Rat</td>
<td>&gt;2 Kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD Oral</td>
<td>Rat</td>
<td>&gt;2 Kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;6000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LDLo Oral</td>
<td>Rat</td>
<td>6 Kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts</td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2890 mg/kg</td>
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</tr>
</tbody>
</table>

**Conclusion/Summary**: Distillates (petroleum), hydrotreated heavy naphthenic: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.

Distillates (petroleum), hydrotreated heavy paraffinic: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.
Section 11. Toxicological information

molybdenum disulphide: In general, insoluble compounds of molybdenum, such as molybdenum disulfide, exhibit a low order of toxicity.

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts: INHALATION (LC50), Acute: > 1310 mg/L (Rat screen level)(4 hours).
DRAIZE EYE: Moderate to severe eye irritant. (Rabbit).
DRAIZE DERMAL: Acute: Mild to moderate skin irritant. (Rabbit).
BUERLER DERMAL: Acute: Non-sensitizing. (Guinea Pig).
28-Day DERMAL, Sub-Chronic: Severe skin irritant. (Rabbit). Reported reduced food consumption resulting in weight loss and testicular atrophy.

Irritation/Corrosion
Not available.

Skin: molybdenum disulphide: May cause skin irritation.
Eyes: molybdenum disulphide: May cause eye irritation.
Respiratory: molybdenum disulphide: May cause respiratory irritation.

Sensitization
Not available.

Skin: No additional information.
Respiratory: No additional information.

Mutagenicity
Not available.

Conclusion/Summary: No additional information.

Carcinogenicity
Not available.

Conclusion/Summary: No additional information.

Reproductive toxicity
Not available.

Conclusion/Summary: No additional information.

Teratogenicity
Not available.

Conclusion/Summary: No additional information.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>molybdenum disulphide</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on the likely routes of exposure: Routes of entry anticipated: Dermal.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: Injection of pressurized hydrocarbons can cause severe permanent tissue damage. Initial symptoms may be minor.
Section 11. Toxicological information

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
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Long term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Potential chronic health effects
Not available.

General: No known significant effects or critical hazards.
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.

Section 12. Ecological information

Toxicity
Not available.

Conclusion/Summary: Not available.

Persistence and degradability
Conclusion/Summary: Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>-</td>
<td>-</td>
<td>Inherent</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>&gt;6</td>
<td>-</td>
<td>high</td>
</tr>
</tbody>
</table>

Mobility in soil

Date of issue/Date of revision: 6/28/2018  Date of previous issue: No previous validation  Version: 1
Section 12. Ecological information

Other adverse effects: No known significant effects or critical hazards.

Soil/water partition coefficient \((K_{OC})\): Not available.

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. Care should be taken when handling emptied 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.

Section 14. Transport information

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

Section 15. Regulatory information

U.S. Federal regulations: United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 307: Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA’s National Response Center at (800) 424-8802.

SARA 302/304
Section 15. Regulatory information

**Composition/information on ingredients**

**SARA 304 RQ**  
: Not applicable.

**SARA 311/312**

**Classification**  
: Not applicable.

### Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>molybdenum disulphide</td>
<td>≤5</td>
<td>SKIN IRRITATION - Category 2</td>
</tr>
<tr>
<td>Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts</td>
<td>≤3</td>
<td>EYE IRRITATION - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACUTE TOXICITY (dermal) - Category 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
</tbody>
</table>

**SARA 313**

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts</td>
<td>68649-42-3</td>
<td>≤2</td>
</tr>
<tr>
<td>Supplier notification</td>
<td>68649-42-3</td>
<td>≤2</td>
</tr>
</tbody>
</table>

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**

**Massachusetts**  
: The following components are listed: MOLYBDENUM DISULFIDE; Polymer

**New York**  
: None of the components are listed.

**New Jersey**  
: The following components are listed: ZINC compounds; Polymer

**Pennsylvania**  
: The following components are listed: ZINC COMPOUNDS; Polymer

**International regulations**

**Inventory list**

**United States**  
: All components are listed or exempted.

**Australia**  
: All components are listed or exempted.

**Canada**  
: All components are listed or exempted.

**China**  
: All components are listed or exempted.

**Europe**  
: All components are listed or exempted.

**Japan**  
: Japan inventory (ENCS): Not determined.

: Japan inventory (ISHL): Not determined.

**Malaysia**  
: Not determined.

**New Zealand**  
: All components are listed or exempted.

**Philippines**  
: Not determined.

**Republic of Korea**  
: All components are listed or exempted.

**Taiwan**  
: Not determined.

**Thailand**  
: Not determined.

**Turkey**  
: Not determined.

**Viet Nam**  
: Not determined.
Section 16. Other information

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

Flammability  
Health  
Instability/Reactivity  
Special

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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.

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQUATIC HAZARD (LONG-TERM) - Category 4</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

History

Date of printing : 6/28/2018  
Date of issue/Date of revision : 6/28/2018  
Date of previous issue : No previous validation  
Version : 1  
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

References : Not available.

Indicates information that has changed from previously issued version.

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