

GC Electronics
 1801 Morgan Street
 Rockford, IL 61102
 Phone: (815) 968-9661
 Fax: (815) 968-9731
 www.gcelectronics.com

Product Name: White Lithium Grease

MSDS Number: 147
 Revision Date: 8/23/06
 Supersedes Date: 11/30/00

MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Type: Lubricant
 Product Name: **White Lithium Grease**
 Part Number(s): **19-2302**

Emergency Contact: **Chemtrec**
 Phone (24 hours): **(800) 424-9300**

Section 1 - Identification of Product

| | | | |
|----------------|----------------|--------------------------|---|
| HMIS | NFPA | Least | 0 |
| Health 1 | Health 1 | Slight | 1 |
| Flammability 1 | Flammability 1 | Moderate | 2 |
| Reactivity 0 | Reactivity 0 | High | 3 |
| | | Extreme | 4 |
| PPE | X | Gloves, Safety Glasses B | |

Section 2 - Hazardous Ingredients

| Components: | Cas# | % | ACGIH TLV | ACGIH STEL | OSHA PEL |
|------------------|-------------|----|---|-----------------------|--|
| Mineral Oil | Proprietary | 85 | 5 mg/m3 (as mist) | 10 mg/m3 (as mist) | 5 mg/m3 (as mist) |
| Titanium Dioxide | 13463-67-7 | <5 | | | 10 mg/m3 (total dust) 15 mg/m3 (respirable dust) |
| Zinc Oxide | 1314-13-2 | <5 | 5 mg/m3 (fume) 10 mg/m3 (total dust) | 10 mg/m3 (fume) | 5 mg/m3 (respirable fraction) 15 mg/m3 (total dust) |

This product contains zinc oxide subject to the reporting requirements of Section 313 Title III of Superfund Amendments and Authorization Act (SARA) of 1986 and 40 CFR Part 372. Components listed in this section may contribute to the potential hazards associated with exposure to this concentrate. The product may contain additional non-hazardous or trade secret components. This product contains no carcinogens.

This product is a semi-solid that is insoluble in water. Direct eye contact may cause minor, short term irritation. Short term skin exposure is not expected to be irritating. Inhalation and ingestion are not anticipated routes of exposure during normal conditions of use.

Section 3 - Physical Data

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| Physical Appearance | White |
| Odor | Mild petroleum |
| Physical State | Semi-solid |
| Water Solubility | Insoluble |
| Specific Gravity | .910 |

Section 4 - Fire & Explosion Hazard Data

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| Fire and Explosive Properties: | |
| Flashpoint | 320.0°F COC |
| Flammability Limits | LEL -N/A UEL -N/A |
| Extinguishing Media: | In accordance with NFPA guidance, dry chemical, foam, or CO ₂ fire extinguishers are all acceptable. Note that while water fog extinguishers are also acceptable, do NOT apply a direct stream of water onto burning product because it may cause spreading and increase fire intensity. |
| Handling Precautions: | Use product with caution around heat, sparks, pilot lights, static electricity and open flame. |
| Unusual Fire & Explosions Hazards: | No further data known. |
| Fire-fighting Procedures and Equipment: | Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage. See Section 8 of the MSDS for other personal protective equipment (PPE) to be worn as conditions warrant. |
| Decomposition Products May Include: | Thermal decomposition products are dependent on combustion conditions. A complex mixture of airborne solid, liquid, particulates and gasses may evolve when the material burns. Combustion byproducts may include: Oxides of carbon Oxides of zinc Incompletely burned hydrocarbons as fumes and smoke |

Section 5 - Health Hazard Data

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| Potential Health and Symptoms from Short Term/Acute Exposure: | |
| Eye Exposure: | This product is not expected to cause eye irritation under normal conditions of use. Symptoms of slight eye irritation may result when direct contact occurs, or when exposed to high mist levels in poorly ventilated areas. |
| Skin Exposure: | Short term skin contact is not expected to cause skin irritation. Prolonged or repeated direct exposure to the skin may result in symptoms of irritation and redness. |

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| Inhalation: | This product has low volatility and so is not expected to cause respiratory tract irritation during normal conditions of use. Exposure to high mist levels in poorly ventilated areas may cause temporary irritation to the upper respiratory tract. |
| Ingestion: | Ingestion may cause slight stomach irritation and discomfort. |
| Potential Chronic Health Effects: | No further data known. |
| Medical Conditions Aggravated by Exposure: | No further data known. |
| Carcinogenicity: | This product is not listed as a known or suspected carcinogen by IARC, OSHA, or the NTP. |
| Emergency First Aid Procedures: | |
| Eye Contact: | Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. If symptoms persist, contact a physician. |
| Skin Contact: | Remove product from the skin by washing with a mild soap and water. Contaminated clothing should be removed to prevent prolonged exposure. If product is injected under the skin, seek treatment immediately. If symptoms of exposure persist, contact a physician. |
| Inhalation: | If signs or symptoms of overexposure occur, remove the employee to fresh air. If symptoms persist, seek medical attention. |
| Ingestion: | If ingested, dilute stomach contents with two glasses of milk or water. (NOTE: Do NOT give anything by mouth to an unconscious person.) Do not induce vomiting without medical supervision. If vomiting occurs spontaneously, keep airway clear. If symptoms of ingestion persist, seek medical attention. |
| NOTE TO PHYSICIAN: | No further data known. |

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| Section 6 - Reactivity Data |
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| Incompatibilities: | This product is incompatible with strong oxidizing agents. |
| Decomposition Products May Include: | Thermal decomposition products are dependent on combustion conditions. A complex mixture of airborne solid, liquid, particulates and gasses may evolve when the material burns. Combustion byproducts may include: Oxides of carbon Oxides of zinc Incompletely burned hydrocarbons as fumes and smoke |
| Conditions to Avoid: | Avoid contact with incompatible materials and exposure to extreme temperatures. |
| Polymerization: | Not expected to polymerize. |
| Stability: | <u>4</u> Stable ___ Unstable |

Section 7 - Spill or Leak Procedures

- Clean Water Act/Oil Pollution Act:** This product may be classified as an oil under Section 311 of the Clean Water Act, and under the Oil Pollution Act. Discharges or spills into or leading to surface waters that cause a sheen must be reported to the National Response Center (1-800-424-8802).
- Clean-Up Measures:** Important: As with any spill or leak, before responding ensure that you are familiar with the potential hazards and recommendations of the MSDS. Appropriate personal protective equipment must be worn. See Section 8 of this MSDS for other PPE recommendations.
- If possible, safely contain the spill with dikes or other spill response equipment appropriate for petroleum or organic material releases. Take measures to prevent spreading of product. Note that while product will ignite it will not readily burn. However, as a precaution, eliminate ignition sources. Prevent from entering sewers or waterways. Large volumes may be transferred to an appropriate container for proper disposal. Small volumes or residues may be soaked up with absorbents. Spill response materials should be collected for proper disposal.

Section 8 - Special Protection Information

- Personal Protective Equipment:** Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection:
- Eye Protection:** Wear eye protection appropriate to prevent eye exposure. Where splashing is not likely, chemical safety glasses with side shields are recommended. Where splashing may occur, chemical goggles or full face shield is recommended.
- Skin Protection:** Gloves are not normally needed during normal conditions of use. If health effects are experienced, oil or chemical resistant gloves such as butyl or nitrile are recommended.
- Where splashing or soaking is likely, wear oil or chemical resistant clothing to prevent exposure.
- Respiratory Protection:** A respirator may be worn to reduce exposure to vapors, dust, or mist.
- Select a NIOSH/MSHA approved respirator appropriate for the type and physical character of the airborne material. A self-contained breathing apparatus is recommended in all situations where airborne contaminant concentration has not been confirmed to be below safe levels. Respirator use should comply with the OSHA Respirator Protection Standard found in 29 CFR 1910.134.
- Engineering Controls:** Normal general ventilation is expected to be adequate. It is recommended that ventilation be designed in all instances to maintain airborne concentrations at lowest practicable levels. Ventilation should at a minimum, prevent airborne concentrations from exceeding any exposure limits listed in Section 2 of this MSDS.

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The user may wish to refer to 29 CFR 1910.1000(d)(2) and the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" (Appendix C) for the determination of exposure limits of mixtures. An industrial hygienist or similar professional may be consulted to confirm that the calculated exposure limits apply.

Section 9 – Special Precautions**Handling:**

As with any industrial chemical, handle the product in a manner that minimizes exposure to practicable levels. Prior to handling, consult Section 8 of this MSDS to evaluate personal protective equipment needs. Open containers slowly to relieve any pressure. Follow all other standard industrial hygiene practices.

Empty containers may contain product residue. All safety precautions taken when handling this product should also be taken when handling empty drums and containers. Keep containers closed when not in use.

Product residue in empty containers is combustible but will not readily burn. NOTE however, that excessive heating or cutting of empty containers may create an ignition source sufficient to start a fire and in extreme cases, cause an explosion.

Storage:

Protect product quality by storing indoors and away from extreme temperatures. Close all containers when not in use.

Disposal Considerations:**Waste Disposal:**

Ensure that collection, transport, treatment, disposal of waste product, and containers comply with all applicable laws and regulations. Note that use, mixture, processing or contamination of the product may cause the material to be classified as a hazardous waste. It is the responsibility of the product user or owner to determine at the time of disposal, whether the product is regulated as a hazardous waste.

Section 10 - Regulatory Information**Federal Regulations:****SARA 313:**

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Zinc Oxide

CAS # 1314-13-2 Pct by Wt: <5

Clean Water Act/Oil Pollution Act:

This product contains mineral oil and is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

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CERCLA Reportable Quantity: Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Releases of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

Component _____ RQ None

Toxic Substances Control Act: The components of this product are listed on the TSCA Inventory.

Ozone Depleting Substances: This product contains no ozone depleting substances as defined by the Clean Air Act.

Hazardous Air Pollutants: Any components listed below are defined by the Federal EPA as hazardous air pollutants.

Component _____ None

State Regulations: This product contains mineral oil, and as used, may be regulated by state used oil regulations. Check with the appropriate state agency to determine whether such a regulation exists.

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| Section 11 - Other Information |
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Ecotoxicological Information: This product has not been evaluated for ecotoxicity. As with any industrial chemical, exposure to the environment should be prevented and minimized wherever possible.

Environmental Fate: The degree of biodegradability and persistence of this product has not been determined.

DOT Hazardous Material Information: Not regulated by US DOT unless shipped in pressurized containers. See bill of lading for proper DOT classification or pressurized container.

Transportation and OSHA Related Label Information:

Transportation Incident Information: For further information relative to spills resulting from transportation incidents, refer to the latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents.

OSHA Required Label Information: In compliance with hazard and right-to-know requirements, where applicable, OSHA Hazard Warnings may be found on the label, bill of lading or invoice accompanying this shipment.

Note: Product label may contain non-OSHA related information also. The health and safety information presented herein must be used in conjunction with the pertinent standards for training, work practices and facilities design established by OSHA, NIOSH, NFPA, APL, NEC, Underwriters, Bureau of Mines, and similar organizations.

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| Disclaimer |
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