Section 1: PRODUCT AND COMPANY INFORMATION
Product Name: Tiodize T8E Paste Lubricant
SDS Prep Date: 04/03/2015
SDS Revision #: A
Supplier: Tiodize Co., Inc.
Address: 5858 Engineer Drive, Huntington beach, CA 92649
Phone #: 714-898-4377, Email: tiodize@tiodize.com
Emergency: 1-800-255-3924 (U.S. & Canada) or 1-813-248-0585 (International)

Section 2: HAZARDS IDENTIFICATION
Primary Routes of Entry: Inhalation, Ingestion, Skin, Eyes.

![DANGER]
Highly Flammable Liquid and Vapor. Contact or inhalation may cause eye, skin or respiratory irritation.

SIGNS & SYMPTOMS OF EXPOSURE:
Inhalation: May cause irritation to upper respiratory system.
Ingestion: Do not ingest, Harmful is ingested.
Skin Contact: May cause irritation and rashes.
Eye Contact: May cause irritation and could be harmful to eyes.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS
Chemical Preparation: Proprietary Formula – Specific Chemicals have been withheld

<table>
<thead>
<tr>
<th>Chemical or Common Name</th>
<th>CAS Number</th>
<th>PEL:</th>
<th>TLV:</th>
<th>TWA:</th>
<th>By Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molybdenum compound</td>
<td>Proprietary</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
<td>7 - 13%</td>
<td></td>
</tr>
<tr>
<td>Barium Compound</td>
<td>Proprietary</td>
<td>2.5 mg/m³</td>
<td>2.5 mg/m³</td>
<td>2 - 5%</td>
<td></td>
</tr>
<tr>
<td>Tellurium Compound</td>
<td>Proprietary</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
<td>5 - 10%</td>
<td></td>
</tr>
<tr>
<td>Boron Compound</td>
<td>Proprietary</td>
<td>N/E</td>
<td>N/E</td>
<td>3 - 8%</td>
<td></td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>1900 ppm</td>
<td>1000 mg/m³</td>
<td>19 - 25%</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>None</td>
<td>32 - 42%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: All SARA Title III materials have been reported. All ingredients contained in this formula are listed on the TSCA Inventory (Toxic Substances Chemical Inventory)

Section 4: FIRST AID MEASURES
Medical Conditions Generally Aggravated by Exposure: Long-term exposure or high concentrations of vapor may result in central nervous system depression and narcosis.

Signs and Symptoms of Exposure: May cause damage to lungs, eyes, skin, liver, kidneys, etc.

Emergency and First Aid Procedures: Eyes: Flush with water for 15 minutes or as needed. Skin: Remove contaminated clothing if needed and wash skin with soap and water. Inhalation: Remove to fresh air. Ingestion: If swallowed, induce vomiting; keep warm, quiet and get medical attention.

Carcinogenicity: Not carcinogenic

Health Hazards (acute and chronic): Overexposure may temporarily affect the nervous system with depression, dizziness, headache or loss of consciousness, and may also cause irregular pulse.
Section 5: FIRE FIGHTING MEASURES
Flash Point: 78°F (Ethanol) PMCC  Flammability Limits: LEL=NE, UEL=NE  Auto Ignition Threshold: NA
Extinguishing Media: ATL Foam Alcohol, Carbon Dioxide, Dry Chemical
Fire Fighting Procedures: Keep container closed; isolate from heat.
Fire & Explosion Hazards: Moderately flammable in paste form when exposed to heat or flame.

Section 6: ACCIDENTAL RELEASE MEASURES
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: For small spills, absorb with dry sand or absorbent cloth. For large spills immediately evacuate the area and shut off potential ignition sources. Only personnel equipped with proper respiratory and skin/eye protection should be permitted in the area. Dike the area to contain the spill. Take precautions as necessary to prevent contamination of ground or surface waters. Recover with a wet vacuum or absorb spilled material in sawdust or vermiculite and sweep into closed containers for disposal. After all visible traces have been removed, thoroughly wet vacuum area again. DO NOT FLUSH INTO SEWER.

Section 7: HANDLING AND STORAGE
Precautions to be taken in Storage & Handling: Keep away from open flame or other ignition sources. Do not store above 120°F. Maintain adequate ventilation and keep from children. Note that some vapors are heavier than air and can displace air in low areas or confined spaces such as pits or tanks. Do not enter those areas where large quantities of vapors are suspected or collecting until exchanging the air or using special breathing apparatus with an observer present for possible assistance.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION
Respiratory Protection/Ventilation: Not required for normal work situations where adequate ventilation is provided (see next section). Use NIOSH approved self-contained positive pressure respirators for emergencies and in situations where air may be displaced by vapors or in confined areas with low air exchange rates. Follow OSHA Std. 29CFR 1910.134.
Ventilation: Use local exhaust at filling zones and where leakage is probable. Use mechanical ventilation for storage areas. For general dilution or local exhaust maintain adequate air exchange to avoid vapor build-up. All ventilation should be designed in accordance with OSHA Std. 29CFR 1910.94.
Skin Protection: Polyethylene, Neoprene or PVC protective gloves if there is prolonged and repeated contact with skin.
Eye Protection: Where there is reasonable probability of liquid contact, wear splash-proof goggles. Contact lenses should not be worn under such conditions.
Other Protective Clothing: Safety shower and eye-wash fountain in manufacturing areas. Personal protective clothing and use of equipment must be in accordance with 29CFR 1910.132 and 29CFR 1910.133.
Work and Hygienic Practices: Do not smoke, eat or drink while using this product. Wash hands with soap and water before smoking, eating, drinking or using toilet facilities. Launder contaminated clothing before reuse.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>196°F (Liquids)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.38 g/ml</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pres.</td>
<td>Not determined</td>
</tr>
<tr>
<td>Appearance</td>
<td>Black, dispersible</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Sol. in Water</td>
<td>Water Reducible</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NA</td>
</tr>
<tr>
<td>Pour Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>(Air=1): Not determined</td>
</tr>
<tr>
<td>Odor</td>
<td>Sweet Mild Solvent</td>
</tr>
<tr>
<td>VOC</td>
<td>325 g/l</td>
</tr>
</tbody>
</table>

Section 10: STABILITY AND REACTIVITY
Stability: Stable  
Incompatibility: Acids, bases and oxidizers  
Hazardous Polymerization: Will not occur

Conditions to avoid: Sources of ignition such as sparks, hot spots, welding, flames, and cigarettes.


Section 11: TOXICOLOGICAL INFORMATION
Acute or Chronic Health Hazards: May cause damage to lungs, eyes, skin. Liver and kidneys, etc.
Signs and Symptoms of Exposure: Skin and eye irritation.
Medical Conditions Generally Aggravated by Exposure: Long-term exposure or high concentrations of vapor may result in central nervous system depression, headache or loss of consciousness, and may also cause irregular pulse.
Emergency and First Aid Procedures: When symptoms occur, remove to fresh air, provide oxygen when breathing is difficult; call physician immediately. See section 4.

NOTE: This material is not known to contain any carcinogen required to be listed under the Hazard Communication Standard 29CFR 1910.1200 from the National Toxicology Program (NTP) or the International Agency for Research on Cancer (IARC) sources.
Section 12: ECOLOGICAL INFORMATION
Not Established.

Section 13: DISPOSAL INFORMATION
Waste Disposal: Recovered liquids may be reprocessed, or incinerated, or treated in a permitted hazardous waste management facility. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. Dispose of chemical materials and/or their containers in accordance with the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, as well as any other Federal, State, or local laws and regulations regarding disposal.

Section 14: TRANSPORT INFORMATION
IATA Dangerous Goods Regulations: Paint, Class 3, UN1263, Packing Group III.

Section 15: REGULATORY INFORMATION
Not established

Section 16: OTHER INFORMATION
SARA TITLE III NOTIFICATION: To comply with the reporting requirements of SARA Title III, EPA Regulations, the following is a list of the chemicals that are subject to customer written notification under section 313:

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
</tr>
</tbody>
</table>

RESPONSIBILITY:
The information contained herein is furnished without expressed warranty of any kind. Data contained herein has been assembled by the manufacturer based on its own studies and is believed to be correct as of the data issued. However, there is no warranty implied as to the accuracy, completeness, or adequacy of the information obtained.

The manufacturer shall not be liable, regardless of fault, to the vendee, the vendee’s employees, or anyone, for any direct, special or consequential damages arising out of or in connection with the normal safe usage of the product. If there are any questions, please contact: Tiodize Co, inc. at 714/898-4377.