OSHA-Required Health And Safety Information!

This Material Safety Data Sheet (MSDS) was requested moments ago from Hercules Automated Fax Information System. Please forward it immediately to the person in charge of MSDS's, or retain it at the machine until claimed.

Section 1

MATERIAL SAFETY DATA SHEET # 4
Climate Smooth Soldering Paste


Meets OSHA 29 CFR 1910.1200

Section 2 - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s), CAS Numbers)

<table>
<thead>
<tr>
<th>Hazardous Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
<th>Upper Bound Limit if SARA Reportable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc chloride (7646-85-7)</td>
<td>1.0mg/M³</td>
<td>1.0mg/M³</td>
<td>N/A</td>
<td>26%</td>
</tr>
</tbody>
</table>

Section 3 - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point (°F)</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>0.95</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point (°F)</td>
<td>120-140</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Very slightly soluble</td>
</tr>
<tr>
<td>Appearance And Color:</td>
<td>Amber to brown color paste</td>
</tr>
<tr>
<td>Odor:</td>
<td>None</td>
</tr>
</tbody>
</table>

Section 4 - Fire And Explosion Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>LEL:</td>
<td></td>
</tr>
<tr>
<td>UEL:</td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>580° F (Min) COC</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>Dry Chemical or Carbon dioxide or water fog.</td>
</tr>
</tbody>
</table>

Special Firefighting Procedures:
Do not use a direct stream of water. Product will float & can be reignited on surface of water. Do not enter confined fire space without proper protective equipment.

Unusual Fire And Explosion Hazards:
When heated above its flash point, this material will release flammable vapors which can burn or be explosive in confined areas. Keep away from extreme heat and open flame.

Continued on Next Page
**Section 5 - Reactivity Data**

Stability: Stable  
Conditions To Avoid: Avoid contact with concentrated alkalis.

Incompatibility (Materials To Avoid): Zinc chloride is incompatible with cyanides (may release toxic HCN gas) and sulfide salts (may release toxic H2S gas)

Hazardous Decomposition: Will not occur except at high temperatures.

Hazardous Polymerization: Will Not Occur

**Section 6 - Health Hazard Data**

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Inhalation</th>
<th>Skin</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
<td>yes/primary</td>
<td>yes/primary</td>
</tr>
</tbody>
</table>

**Health Hazards**

Individuals with pre-existing diseases of lungs may have increased susceptibility to the toxicity of excessive exposures to Zinc chloride.

**Carcinogenicity**  
NTP NO  IARC NO  OSHA Regulated NO

**Signs And Symptoms of Exposure:**

INGESTION: Severe damage to internal organs (esophagus & pylorus) will occur if swallowed in large quantities.  
SKIN CONTACT: Prolonged contact causes burns, skin irritation with discomfort with rash.  
EYE CONTACT: Will cause eye irritation with discomfort, tearing or blurring of vision.

**Medical Conditions Generally Aggravated By Exposure:**

**Emergency And First Aid Procedures:**

INGESTION: Do not induce vomiting. If conscious, dilute by giving large quantities of water or milk. Call a physician immediately.  
SKIN CONTACT: Wash affected skin area with soapy water. Remove contaminated clothing. If burn or rash appears, consult a physician.  
EYE CONTACT: Immediately flush eyes with plenty of water for 15 minutes. Call a physician.

*Continued on Next Page*
Section 7 - Precautions For Safe Handling And Use:

Steps To Be Taken In Case Material Is Released Or Spilled:
Flush with large quantities of water and pick up with absorbing materials.

Waste Disposal Method:
Landfill. To dispose of large quantities, comply with federal, state and local regulations.

Precautions To Be Taken In Handling And Storing:
If handling in large quantities, wear rubber gloves & goggles.

Other Precautions:
None

Section 8 - Control Measures:

Respiratory Protection:
In confined spaces or other circumstances where adequate ventilation cannot be assured use NIOSH-approved respirator, positive pressure airline mask, or self contained breathing apparatus.

Ventilation: Local Exhaust N/A
               Mechanical Exhaust fan
               Special N/A

Gloves: Rubber gloves
Eye Protection: Safety goggles
Other: N/A

Other Protective Clothing:
Gloves while handling the material.

Work/Hygienic Practices: Wash thoroughly after handling.

For Hercules Material Safety Data Sheets by fax anytime, day or night, just call 1-800-942-INFO (1-800-942-4636) from any Touch-Tone phone. Have your fax number ready. Checking the product label for the correct MSDS # will save time.