MATERIAL SAFETY DATA SHEET

MSDS Number: 1601E

Section 1 PRODUCT AND COMPANY IDENTIFICATION
Trade Name: OATEY SILVER LEAD FREE PLUMBING WIRE SOLDER
OATEY SAFE-FLO LEAD FREE PLUMBING WIRE SOLDER

Product Nos.: 23000, 23001, 23002, 29030, 29024, 29025, 53061, 53062, 53188, 53064, 53195, 50683, 50684, 50691, 50692, 53013, 53186, 48311, 48312, 48313, 48318

Product Use: Solder for copper water lines

Formula: See Section 3

Synonyms: Solder

Firm Name & Address: Oatey Company 4700 West 160th Street, Cleveland, Ohio 44135

Firm Phone No: (216) 267-7100

Emergency Phone Nos.: For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.

Prepared by: Technical Department
Preparation Date: 04/07/10

Section 2 HAZARDS IDENTIFICATION

Emergency Overview:
Silver-gray wire metal. The fumes may be hazardous during soldering operations. Fumes can cause eye irritation and may cause headache and respiratory system irritation. Ingestion of metal alloys may be harmful.

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>%wt/wt :</th>
<th>CAS NUMBER:</th>
<th>ACGIH TLV TWA:</th>
<th>OSHA PEL TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tin</td>
<td>60 – 100%</td>
<td>7440-31-5</td>
<td>2 mg/m3</td>
<td>2 mg/m3</td>
</tr>
<tr>
<td>Copper</td>
<td>1 – 5%</td>
<td>7440-50-8</td>
<td>0.2 mg/m3(fume)</td>
<td>0.1 mg/m3(fume)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 mg/m3(dust)</td>
<td>1 mg/m3(dust)</td>
</tr>
<tr>
<td>Bismuth</td>
<td>1 – 5%</td>
<td>7440-69-9</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Silver</td>
<td>1 – 5%</td>
<td>7440-22-4</td>
<td>0.1 mg/m3</td>
<td>0.1 mg/m3</td>
</tr>
</tbody>
</table>

Section 4 FIRST AID MEASURES

Skin: If irritation arises, wash thoroughly with soap and water. Seek medical attention if irritation persists.

Eyes: If material gets into eyes, immediately flush eyes with water while holding eyelids open until material is removed. If irritation persists, seek medical attention.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Call a poison control center or physician immediately.

Ingestion: DO NOT INDUCE VOMITING. Ingestion is not a likely route of entry. Never give anything by mouth to a person who is unconscious or drowsy. Get medical attention by calling a Poison Control Center, or hospital emergency room.

Section 5 FIRE FIGHTING MEASURES
Flashpoint / Method: Not applicable
Flammability: LEL = Not applicable, UEL = Not applicable
Extinguishing Media: Use appropriate means of extinguishing surrounding fire.
Special Fire Fighting Procedure: Not applicable
Unusual Fire And Explosion Hazards: None known
Hazardous Decomposition Products: Material will not decompose under normal conditions. If overheated, oxides of tin, bismuth, copper and silver may result.

Section 6 ACCIDENTAL RELEASE MEASURES
Spill or Leak Procedures: Collect solid and place in properly labeled containers for recycle or disposal.

Section 7 HANDLING AND STORAGE
Handling: Avoid inhalation of fumes, vapors or dust. Keep away from children. Wash thoroughly after handling before eating, drinking, or smoking.
Storage: Store in a cool, dry place away from heat or open flame.
Other: None

Section 8 EXPOSURE CONTROLS/PERS PERSONAL PROTECTION
Ventilation: Good general ventilation (equivalent to outdoors) should be adequate for normal use. For operations where the TLV may be exceeded, mechanical ventilation such as local exhaust may be needed to maintain exposure levels below applicable limits.
Respiratory Protection: For operations where the TLV may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice.
Skin Protection: Wear gloves and long sleeves to avoid direct contact with skin.
Eye Protection: Safety glasses with side shields or safety goggles.
Other: Eye wash and safety shower should be available.

Section 9 PHYSICAL AND CHEMICAL PROPERTIES
Boiling Point: Not determined
Melting Point: 415 to 455 Degrees F (213 to 235 Degrees C)
Vapor Pressure: Not determined
Vapor Density: (Air = 1) Greater than 1
Volatile Components: None
Solubility In Water: Negligible
pH: Not applicable
Specific Gravity: 9 to 11
Evaporation Rate: Not applicable
Appearance: Silver-gray wire metal
Odor: None
Will Dissolve In: Not applicable
Material Is: Solid

Section 10 STABILITY AND REACTIVITY
Stability: Stable.
Conditions To Avoid:
Do not heat over 480 degrees F (250 degrees C).
Hazardous Decomposition
Products:
Incompatibility/ Materials To Avoid:
Polymerization:

Section 11  TOXICOLOGICAL INFORMATION

Inhalation: Fumes from soldering operations may be irritating to the respiratory system. Prolonged exposure to fumes may cause stannosis, a mild benign pneumoconiosis. Repeated inhalation of fumes may cause occupational asthma. Symptoms may be delayed.
Skin: Fumes may cause irritation.
Eye: Fumes may cause irritation.
Ingestion: Ingestion may cause abdominal pain, nausea, vomiting, diarrhea, gastrointestinalitis, or internal cuts. Long term chronic ingestion may damage the liver, kidneys, nervous system and gastrointestinal system.

Toxicity Data: No data available.
Sensitization: None of the components are known to cause sensitization.
Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA.

Mutagenicity: None of the components have been found to be mutagenic.
Reproductive Toxicity: None of the components are known to cause adverse reproductive effects.
Medical Conditions Aggravated By Exposure: Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to the fumes of this product.

Section 12  ECOLOGICAL INFORMATION

No data available. Keep out of waterways.

Section 13  DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in accordance with federal, state, and local regulations. It is the responsibility of the end-user to determine at the time of disposal of the product.

RCRA Hazardous Waste Number: None
EPA Hazardous Waste ID Number: None
EPA Hazard Waste Number: None.

Section 14  TRANSPORT INFORMATION

DOT
UN/NA Number: None
Proper Shipping Name: Not regulated
Hazard Class: None
Packing Group: None
Hazard Labels: None
IMDG
UN Number: None
Proper Shipping Name: Not regulated
Hazard Class: None
Packing Group: None
Label: None
Section 15  REGULATORY INFORMATION

Hazard Category for Section 311/312: Acute and chronic health hazards.

Section 302 Extremely Hazardous Substances (TPQ): This product does not contain chemicals regulated under SARA Section 302.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS #</th>
<th>% wt</th>
</tr>
</thead>
<tbody>
<tr>
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<td>7440-50-8</td>
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CERCLA 103 Reportable Quantity: This product contains no chemicals subject to CERCLA reporting.

California Proposition 65: This product does not contain any chemicals subject to California Proposition 65 regulations.

TSCA Inventory All of the components of this product are listed on the TSCA inventory.

Canadian WHIMS Classification: Not a controlled product.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Section 16  OTHER INFORMATION

NFPA and HMIS:

NFPA Hazard Signal: Health: 1 Flammability: 0 Reactivity: 0 Special: None

HMIS Hazard Signal: Health: 1 Flammability: 0 Reactivity: 0 PPE: B

Disclaimer:
The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

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