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162 W Main St Suite M  
Whitewater, WI 53190  
1-888-478-5060

**MSDS SOL-201-203**

Silver Solder Paste

**\*\*\*MATERIAL SAFETY DATA SHEET\*\*\***

**PRODUCT IDENTIFICATION**

**IDENTITY (As shown on label)**

SOL-201-203

**Product Use:** Solder paste used for joining metal by heating the parts to be joined and this paste to or above the melt point of filler metals.

**HAZARDOUS INGREDIENT INFORMATION**

**Filler Metal (83% by weight)**

<u>Ingredient</u>	<u>CAS#</u>	<u>ACGIH TLV</u>
Silver	7440-22-4	0.1mg/m <sup>3</sup>
Copper	7440-50-8	0.2mg/m <sup>3</sup> (as fume)
Zinc	7440-66-6	5mg/m <sup>3</sup> (as zinc oxide fume)

**Flux- Binder (17% by weight)**

<u>Ingredient</u>	<u>CAS#</u>	<u>ACGIH TLV</u>
Boric Acid	10043-35-3	-----
Potassium Tetra borate	1332-770-0	2.5mg/m <sup>3</sup>
Potassium Fluoride	7789-23-3	-----

**PHYSICAL/ CHEMICAL CHARACTERISTICS**

**Boiling Point:**

NA

**Specific Gravity (H<sub>2</sub>O=1):**

NA

**Vapor Pressure (mm hg):**

NA

**Melting Point:**

NA

**Vapor Density (air+1):**

NA

**Evaporation Rate (n-buty1 acetate=1):**

NA

**Solubility In Water:**

NIL

**Appearance And Odor:**

Metallic-rod, strip, wire or powder. Odorless.

**Brazing & Soldering Automation**

**FIRE AND EXPLOSION HAZARD DATA**

<b>Flash Point:</b>	<b>Flammable Limits:</b>	<b>LEL</b>	<b>UEL</b>
NA	Unknown	--	--

**Extinguishing Media:** Dry chemical, CO<sub>2</sub> foam, water fog, sand, earth.

**Hazardous Decomposition or Byproducts:** Cu fumes, an oxide, ag metal may be generated during brazing. Ovoid overheating. Fluoride fumes or gas, BF<sub>3</sub> gas on heating during brazing. Also, B<sub>2</sub>O<sub>3</sub>, Carbon Monoxide and Carbon Dioxide.

**Special Fire Fighting Procedures:** Water spray is an unsuitable extinguishing agent. Fire fighters should use self-contained breathing apparatus to protect against smoke inhalation.

**Unusual Fire And Explosion Hazards:** None known.

**REACTIVITY DATA**

**Stability:** Stable at room temperature.

**Hazardous Polymerization:** May Occur \_\_\_\_\_ Will not Occur  X

**Incompatibility: (materials and conditions to avoid):** Strong oxidizers, strong alkalize, nitrates and nitrites, cyanides (may release hydrogen cyanide gas), sulfides (may release hydrogen sulfide gas), chlorides, turpentine, alcohols, amines.

**HEALTH HAZARD DATA**

**Routes of Entry:** Inhalation, skin, and ingestion.

**Health Hazards (effects of overexposure to flux-binder):**

Eyes: Eye irritation, or eye injury upon prolonged contact.

Skin: Direct Skin irritation particularly on abraded skin. Prolonged exposure may cause dermatitis.

Acute Exposure: Irritation to the nose, throat, and respiratory tract; cough, nose bleeds nausea, committing, chest tightness, chills, fever, tearing, pneumoitis, and pulmonary edema.

Chronic Exposure: Abdominal pain and cramps, liver and kidney damage, impaired pulmonary function, and fluorosis (a disease characterized by mottled teeth, osteosclerosis and pain and loss of mobility in joints.)

Ingestion: Some components of this product are potentially toxic if ingested, and may cause: nausea, vomiting, diarrhea, abdominal pain, gastrointestinal irritation, convulsions, tachycardia, cramps and central nervous system depression.

**Medical Conditions Generally Aggravated By Exposure:** Preexisting eye, skin and respiratory disorders.

**Target Organs:** Repeated excessive exposure may cause kidney and liver effects and increased fat levels in the blood. Respiratory tract, nasal system, eyes, skin.

**Carcinogen:** NTP no IARC Monographs no OSHA Regulated no

**H.M.I.S. Rating:** Health: 2 Flammability: 1 Reactivity: 0



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### EMERGENCY AND FIRST AID PROCEDURES

**Eye Contact:** Immediately flush eyes with plenty of water for at least fifteen minutes. Get medical attention.

**Skin:** Remove contaminated clothing. Immediately wash skin thoroughly with soap and water. Get medical attention if irritation or burn persists or develops.

**Inhalation:** If a person breathes in large amounts of dusts or fumes, move the exposed person to fresh air at once and perform artificial respiration.

**Ingestion:** If swallowed, get medical attention immediately. Give large quantities of water and induce vomiting. DO NOT make an unconscious person vomit.

### PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** No problem in picking up wire, rod or strip form as of the alloy. For use, reclaim or scrap.

**Waste Disposal Method:** Consider possible reclaim value. Scrap alloy can be disposed of through a licensed waste disposal company, in accordance with federal, state and local regulations. The disposal of collected fumes, from the exhaust ventilation system must be considered also.

**Precautions To Be Taken In Handling And Storage:** Avoid direct contact with this material. Use only with adequate ventilation. Keep lid tightly closed except when removing product. Store at ambient temperatures.

### CONTROL MEASURES

**Respiratory Protection:** Air flow to produce velocity.

**Ventilation:**

**Local Exhaust:** 100 lineal ft./min in brazing zone    **Mechanical (general)** 2,000 cu.ft./min/brazer

**Protective Gloves:**

**Eye Protection:**

Leather welding gloves

Plastic Frame safety spectacles with side shields-filter lenses shade #3 or#4

**Other Protective Clothing Or Equipment:** Normal clothing for torch brazing. (Avoid flammable fabrics.)

**Work/Hygienic Practices:** Launder soiled clothing before reuse. Wash with soap and water after use.

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