SARU SILVER ALLOY PRIVATE LIMITED

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# **Material Safety Data Sheet**

# SILVER BRAZING PASTE

# **1. Product And Company Identification**

# **Product Name: Silver Brazing Paste**

# **Supplier and Manufacturer**

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Issue Date: 01/04/2021 Product Name: Silver brazing flux for joining various metals in welding and brazing industries. CAS Number: Not Established

# 2. Composition/Information On Ingredients

Ingredient Name - (CAS Number) - %

Boric acid (10043-35-3) 5 - 20 Potassium pentaborate (11128-29-3) 15 - 35 No Data Available...

# 3. Hazards Identification

Primary Routes(s) Of Entry

Ingestion; inhalation.

#### **Eye Hazards**

These products can cause eye irritation or injury upon contact.

# Skin Hazards

These products and can produce irritation, particularly on abraded skin. Prolonged exposure can cause dermatitis.

# **Ingestion Hazards**

Some components of these products are potentially toxic if ingested, and may cause one or more of the following symptoms and effects: nausea, vomiting, diarrhea, abdominal pain, cramps, tachycardia, convulsions, gastrointestinal irritation, and central nervous system depression.

#### **Inhalation Hazards**

Inhalation of the components and decomposition byproducts of these products does not pose a significant risk to health when the products are used in accordance with instructions and appropriate protective measures (see Section #8). The components may cause one or more of the following symptoms and effects upon excessively high and/or prolonged exposure.

Acute exposure: Irritation to the nose, throat, and respiratory tract; cough, nose bleeds, nausea, vomiting, chest tightness, chills, fever, tearing, pneumonitis, 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).

# 4. First Aid Measures

#### Eye

Flush affected areas with water for at least 15 minutes. Seek medical assistance if necessary.

#### Skin

Remove contaminated clothing, and wash affected area with large quantities of water for at least five minutes. Seek medical attention if necessary.

# Ingestion

If subject is conscious, induce vomiting. If unconscious or convulsive, seek immediate medical assistance.

#### Inhalation

If signs and symptoms of toxicity are observed, remove subject from area, administer oxygen, and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

#### **Note To Physician**

The component potassium fluoride is acutely toxic. Treat fluoride intoxication symptomatically. Intoxication may occur by ingestion and/or inhalation. No components are significantly absorbed through the skin.

# 5. Fire Fighting Measures

#### **Fire And Explosion Hazards**

These products are non-flammable and non-explosive. However, if they are present in a fire or explosion, potential decomposition byproducts may include hydrogen fluoride, boron trifluoride, and/or boron oxide.

# **Fire Fighting Instructions**

If fighting a fire in which these products are present, wear a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

# 6. Accidental Release Measures

Avoid contact with skin, eyes, and mucous membranes. Dilute and wash down spillage with water. Wear appropriate protective equipment (e.g., gloves, chemical goggles) during cleanup and disposal.

# 7. Handling And Storage

#### Handling Precautions

No special handling precautions are required.

#### **Storage Precautions**

Store in a cool, dry place away from incompatible materials (see Section #10).

# Work/Hygienic Practices

To minimize possible ingestion, wash hands and face before eating, drinking, or using cosmetics or tobacco.

# 8. Exposure Controls/Personal Protection

#### **Engineering Controls**

Use appropriate ventilation (e.g., dilution, local exhaust) adequate to maintain concentrations of all components and their decomposition byproducts to within their respective OSHA PELs or other applicable standards.

# **Eye/Face Protection**

Wear eye protection adequate to prevent eye contact and to prevent eye injury from the hazards of brazing. Plastic-frame spectacles with side-shields and filter lenses (shade #3 or #4) are recommended.

# **Skin Protection**

Wear appropriate protective gloves and clothing to prevent skin injuries from the hazards of brazing and/or for prolonged or repeated contact with the product. Avoid flammable fabrics.

# **Respiratory Protection**

If an exposure level exceeds an applicable exposure standard, use a NIOSH-approved respirator having a configuration (type of facepiece, filter media, assigned protection factor, etc.) appropriate to the concentration of the contaminant(s)generated. For guidance on selection and use of respiratory protection, consult American National Standard Z88.2 (ANSI, New York, NY 10036 USA).

# Ingredient(s) - Exposure Limits

Boric acid No OSHA PEL(s) No ACGIH TLV(s) Potassium pentaborate No OSHA PEL(s) No ACGIH TLV(s)

# 9. Physical And Chemical Properties

#### Appearance

White or dark brown pastes, odorless Chemical Type: Mixture Physical State: Liquid Melting Point: ca. 1050 °F ca. 565 °C Specific Gravity: ca. 1.67 Percent Volatiles: Not Applicable (N/A) pH Factor: ca. 8.0 Solubility: soluble

# **10. Stability And Reactivity**

Stability: stable Hazardous Polymerization: will not occur

#### **Conditions To Avoid (Stability)**

Some components of products may decompose at elevated temperatures.

#### **Incompatible Materials**

Acetic anhydride; alkali and alkali earth metals; zirconium.

# **Hazardous Decomposition Products**

Hydrogen fluoride, boron trifluoride, and/or boron oxide.

# **11. Toxicological Information**

# Chronic/Carcinogenicity

No components are classified as potential or demonstrated human carcinogens by IARC, NTP, or OSHA.

# **Reproductive Effects**

In experimental animal studies, inorganic borates have been found to cause decreased sperm production and testicular effects in male rats, and developmental effects in fetuses of exposed female mice. No human reproductive effects attributable to borates have been established.

# **Mutagenicity (Genetic Effects)**

Inorganic fluorides have been demonstrated to induce mutagenic changes in a number of mammalian cell cultures. The significance of these findings to human health risks is unknown.

#### **Miscellaneous Toxicological Information**

These products have not been subject to toxicological testing by the manufacturer.

#### **Conditions Aggravated By Overexposure**

Pre-existing pulmonary diseases (e.g., bronchitis, asthma), may be aggravated by inhalation exposure to the components and decomposition byproducts of these products. Ingestion can aggravate pre-existing diseases of the liver, kidneys, gastrointestinal system, and skeletal system.

# Ingredient(s) - Toxicological Data

Boric acid LD50: 2660 mg/kg (oral/rat) LC50: No data available Potassium pentaborate LD50: No data available LC50: No data available

# **12. Ecological Information**

#### **Ecotoxicological Information**

In their intended manner of use, these products should not be released into the environment, and adverse effects on ecosystems are not anticipated under recommended conditions of use, storage, and disposal.

# **13. Disposal Considerations**

Dispose of unused or unusable product in accordance with applicable Federal, State/Provincial, and local regulations.

# **14. Transport Information**

This product is NOT A Hazardous Substance or Dangerous Goods per USDOT/ICAO/IMO regulations.

# **15. Regulatory Information**

#### SARA Hazard Classes

Acute Health Hazard; Chronic Health Hazard

#### **SARA Section 313 Notification**

These products contain no chemicals in concentrations greater than 1% (for carcinogens 0.1%) which are subject to U.S. Environmental Protection Agency regulations under 40CFR, Part 372 (SARA Section 313).

#### **Canadian Regulatory Information**

WHMIS Class(es) and Division(s): D1B, D2A, D2BComponents on Ingredients Disclosure List:1. Boric acid (CASRN 10043-35-3)2. Fluoride compounds, inorganic, n.o.s.

#### **16. Other Information**

#### Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

#### Saru Silver Alloy Private Limited