

# SARU SILVER ALLOY PRIVATE LIMITED

Regd. Office & Factory: 3, SARU NAGAR, SARDHANA ROAD, POB NO. 103, MEERUT- 250 001 (INDIA)

E-mail: [info@sarusilver.com](mailto:info@sarusilver.com) Web: [www.sarusilver.com](http://www.sarusilver.com) Phones: +91-121-2555433, 2555932, 2555291 Fax: +91-121-2555515

## MATERIAL SAFETY DATA SHEET

### SILVER BRAZING FLUX POWDER

#### 1. Product And Company Identification

##### Supplier and Manufacturer

Saru Silver Alloy Private Limited

3, Saru Nagar

Sardhana Road,

Meerut, UP, INDIA

250001

Ph: +91-121-2555433, 2555932, 2555291

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Issue Date: 01/04/2021

Product Name:

Silver brazing flux used for joining of metals in welding or brazing industries.

CAS Number: Not Established

#### 2. Composition/Information On Ingredients

Ingredient Name - (CAS Number) - %

Boric acid (10043-35-3) 10 - 25

Potassium tetraborate (12045-78-2) 40 - 60

No Data Available...

#### 3. Hazards Identification

##### Primary Routes(s) Of Entry

**Ingestion; inhalation.**

##### Eye Hazards

This product can cause eye irritation, or injury upon prolonged contact.

##### Skin Hazards

This product can produce irritation, particularly on abraded skin. Prolonged exposure can cause dermatitis.

##### Ingestion Hazards

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



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## Inhalation Hazards

Inhalation of the components of these products is not known to present a significant risk to health when used according to instructions and with appropriate protective measures (see Section #8). Inhalation of components and/or decomposition byproducts has been reported to cause one or more of the following symptoms and/or effects upon very high or prolonged exposure:

**BORIC ACID:** Inhalation of boric acid may irritate the nose, throat, and respiratory system. Chronic exposure may cause borism, which is characterized by dry skin, skin eruptions, and gastrointestinal disturbances.

**POTASSIUM FLUORIDE:** Inhalation of inorganic fluoride salts may cause abdominal pain, cramps, impaired pulmonary function, and fluorosis (a disease characterized by mottled teeth, osteosclerosis, and pain and loss of mobility in joints).

**POTASSIUM TETRABORATE:** Inhalation may irritate the nose, throat, and upper respiratory system.

## 4. First Aid Measures

### Eye

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

### Skin

Remove contaminated clothing. Wash affected area with large quantities of water for at least five minutes. Seek medical attention if necessary. Launder or dry-clean clothing before reuse.

### Ingestion

Do not induce vomiting. If the subject is conscious, give plenty of milk or other form of soluble calcium, such as calcium lactate or calcium gluconate. 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 absorbed through the skin, although irritation or dermatitis may occur.



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## 5. Fire Fighting Measures

### Fire And Explosion Hazards

This product is non-flammable and non-explosive. If it is present in a fire or explosion, potential decomposition byproducts may include boron oxide, boron trifluoride, and hydrogen fluoride.

### Fire Fighting Instructions

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

## 6. Accidental Release Measures

Isolate spilled material and transfer to impervious containers. Avoid contact with skin, eyes, and mucous membranes. Wear appropriate protective equipment (e.g., gloves, chemical goggles) during cleanup and disposal.

## 7. Handling And Storage

### Handling Precautions

Avoid contact with skin, eyes, and mucous membranes, using protective equipment as necessary.

### Storage Precautions

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

### Work/Hygienic Practices

To minimize ingestion, wash hands and face before eating, drinking, applying cosmetics, or using 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 byproducts to within their respective OSHA PELs or other applicable standards.

### Eye/Face Protection

Wear eye protection adequate to prevent eye contact with the product and 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



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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 powder, odorless

Chemical Type: Mixture

Physical State: Solid

Percent Volitales: Not Applicable (N/A)

Solubility: soluble

## 10. Stability And Reactivity

Stability: stable

Hazardous Polymerization: will not occur.

### Conditions To Avoid (Stability)

Some components of the product may decompose at elevated temperatures.

### Incompatible Materials

Acetic anhydride; alkali and alkali earth metals; zirconium.

### Hazardous Decomposition Products

May include boron oxide, boron trifluoride, and/or hydrogen fluoride.

## 11. Toxicological Information

### Chronic/Carcinogenicity

The product contains no chemicals classified as potential or demonstrated carcinogens by IARC, NTP, or OSHA.



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## Reproductive Effects

In experimental animal studies, inorganic borate compounds and boric acid 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 occupational exposure to borates or boric acid have been established.

## Mutagenicity (Genetic Effects)

Inorganic fluoride compounds have been demonstrated to induce mutagenic changes in mammalian cell in culture. The significance of these findings to human health risks is unknown.

## Conditions Aggravated By Overexposure

Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation overexposure. Chronic overexposure by ingestion or inhalation may aggravate diseases of the liver, kidneys, skeletal, gastrointestinal, and central nervous systems.

## 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

In its intended manner of use, this product 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/IATA/IMO regulations.

## 15. Regulatory Information

### SARA Hazard Classes

Acute Health Hazard; Chronic Health Hazard

## SARA Section 313 Notification



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This product contains no ingredients in concentrations greater than 1% (for carcinogens 0.1%) regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

## Canadian Regulatory Information

WHMIS Class(es) and Division(s): D1B, D2A, D2B

Component(s) on Ingredients Disclosure List:

1. Boric acid (CASRN 10043-35-3)
2. Fluoride compounds, inorganic, n.o.s.

## 16. Other Information

### Revision/Preparer Information

This MSDS Supersedes A Previous MSDS Dated: 26/09/2006

### 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.**

