



# MATERIAL SAFETY DATA SHEET

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## Ferro Silicon Barium Inoculant

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: **Ferro Silicon Barium Inoculant**

Product Code: **Ferro Silicon Barium Inoculant**

Synonyms/Trade Names: **FeSiBa**

MANUFACTURER:

EMERGENCY TELEPHONE NUMBERS:

ANHUI FITECH MATERIAL CO..LTD

NATIONAL INNOVATION INDUSTRIAL BASE, HUGUANG ROAD, SHUSHAN DISTRICT, HEFEI, ANHUI, CHINA

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS 1

Product Identifier: Ferro Silicon Barium Inoculant

Product Code: Ferro Silicon Barium Inoculant

CAS NO.:

7440-21-3(SI) 71.34%

7440-39-3(Ba) 0.98%

7429-90-5(Al) 1.56%

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): 1 Elemental analysis of the alloy. The manufacturer can provide a more detailed analysis, including other trace elements.

### 3. HAZARDS IDENTIFICATION

Note the product is in solid normally not be suction intake of the body or cause harm to the skin, but such as flue gas particles or operation may be hazardous to health, melting molten iron is very dangerous.

**Eye contact:** if eye contact to the product of dust or particles easy cause mechanical stimuli such as pain, tears, redness and swelling, corneal abrasions, products of the flue gas can also be stimulating, contact heating products may cause thermal burns.

**Skin contact:** contact with dust or particles may cause mechanical stimulation abrade,



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some components of the product may cause allergic reactions such as fever, itching, rash, contact with heated material may cause thermal burns.

**By respiratory inhalation:** dust may cause nose, the stimulation of respiratory tract and lungs, excessive intake of metal smoke or dust may cause metal smoke with fever, an epidemic disease. The mouth sweet or metallic taste, and accompanied by muscle and joint pain, blurred vision, hair Hot chills. Typical symptoms lasts 12 to 48 hours.

**Devour the intake:** according to the chemical and physical properties of the product accident intake may cause poisoning. Too much eating may cause excitement, nausea and diarrhea disease Shape.

**The toxicology of chronic or special response:** repeated exposure to fine dust may cause the changes of nasal mucosa and lung, in addition, her eyes or skin may appear red brown pigmentation. Welding fumes can adverse impact on health.

Main effect organs: long-term exposure to the product specific components generated dust or smoke may cause negative effect to the following organ or system: eyes, skin, liver, kidneys and central nervous system, cardiovascular system, respiratory system.

**Long exposure of the pathological response:** long-term exposure can cause skin disease illness such as eczema. At the same time, cause respiratory disorders such as asthma, bronchitis and emphysema. Long-term inhalation of the dust of the product and oxides smoke may cause pneumoconiosis.

**Health hazards:** may stimulate the gastrointestinal tract. Eating can cause nausea, abdominal pain and vomiting. Can irritate the eyes, skin, and upper respiratory tract. Released by inhalation in wet steam with high toxic.

**Environmental hazard:** this material is harmful to the environment, should pay special idea on water and air pollution.

**Combustion hazard:** the water release highly flammable gas.

## 4. FIRST AID MEASURES

**Eye contact:** if the eyes for a long time exposed to dust or smoke, rinse immediately



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with plenty of water for at least 15 minutes and occasionally lift the eyelid. If irritation persists, thermal burn, should go to a doctor immediately.

**Skin contact:** if skin long-term exposure to dust or smoke, and the amount of water wash with soap, development for continuous should go to a doctor if irritation reaction. The skin thermal burn the burned area is washed with cold water and go to a doctor.

**After inhalation:** if long-term exposure to dust or smoke, move to fresh air place, symptoms of sustainable development, please go to a doctor.

**Eat after intake:** after accidental intake, shall be immediately gargle, inhalation of dust and smoke too much adverse reaction, should immediately go to a doctor to suit the remedy to the case.

**Doctor:** after metal smoke or metal oxide inhalation may cause weak, chills, fever, cough, general malaise, nausea, vomiting, muscle cramps and with leukocytosis, best treatment within 24 to 48 hours. Long-term exposure to dust may cause in the mix Type of pneumoconiosis.

## 5. FIRE FIGHTING MEASURES

**Flash point:** not applicable

**Explosion limit (volume percentage %) in the air:** not applicable

**Natural temperature:** not applicable

**Hazardous combustion products:** silicon and iron oxide.

**Fire extinguishing methods:** this product does not belong to flammable material, around the fire, can use powder or sand extinguishing. Banning the use of water.

**Fire extinguishing measures and precautions:** isolate the fire area. Firemen must wear breathing apparatus and protective gloves, in the direction of the wind fire. As far as possible, Remove the container from fire to open.

## 6. ACCIDENTAL RELEASE MEASURES



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Spill prevention measures: dust conditions exist products shall establish spill emergency response mechanism, avoid breathing, eye or skin contact should take measures to prevent the report suggests, fine chip and little pieces should be swept clean and put in the appropriate container.

Away from the fire source should make tiny dust or powder. Waste can be recycle used, pour is prohibited drains or sewers.

**Environmental precautions:** part of the grade of steel may contain a lot of need to report to the competent unit of alloy elements.

**Waste disposal method:** to use or not use the product treatment measures in accordance with the applicable national and local laws and regulations.

## 7. HANDLING AND STORAGE

**Operation note:** operating in good ventilated area. Operational staff wear protective clothing. To avoid dust. Avoid contact with moisture.

**Storage precautions:** atmospheric pressure storage warehouse. Avoid contact with moisture, relative humidity less than 75%. Away from fire and heat source. Light light discharge when handling to prevent damage to packaging and container.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

When necessary should evaluate and control the high solubility air suspended particles or potential operation of flue gas.

**Eye protection:** use protective goggles. Mechanical processing, such as grinding or cutting easy generation particles is recommended to use anti dust goggles. Protective mask should be used when welding or cutting.

**Skin:** should wear appropriate protective gloves if necessary. Should develop good personal hygiene habits include with soap and water several times a day clean the exposed skin or cleaning pollution overalls.

**Respirator protection:** prevent dust, smoke, fog masks should be adopted to avoid



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excessive exposure. If dust or gas solubility is too high, or high to hypoxia can't count on respirator protection, should use the positive pressure self-contained breathing apparatus.

Ventilation: use the global or local exhaust ventilation device control the concentration of dust in the air or flue gas, remain under exposure limits.

Exposure guidelines: steel products do not exist to allow exposure limit (the PEL) or (harmful) to allow the highest concentration(TLV).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Solid Granules, Powder or Lump
<b>Color:</b>	Silvery gray, metallic surface
<b>Odor:</b>	Odorless
<b>Solubility (Water):</b>	Insoluble to slightly soluble.
<b>Melting Point (°C):</b>	Approx. 1300
<b>Specific Gravity (water = 1):</b>	Approx. 1.8

Main application: mainly used in casting, cast iron with a certain amount, silicon barium inoculant strongly increase the graphitization core, refine graphite, promote the gray cast iron, Get A type graphite, improving strength, for ductile iron parts can make small graphite in ductile iron, roundness, improve spheroidizing grade; Significantly reduce chilling tendency, reduce the relative hardness and improve casting machinability, recession-proof ability, improve the uniformity of section, reduce shrinkage tendency.

## 10. STABILITY AND REACTIVITY

**Stability:** stable.

**Prohibited content:** strong oxidizer, water, acid, alkali.

**Avoid contact with the condition:** contact with water.

**Aggregate harm:** will not occur.

**Breakdown products:** potential thermal decomposition can produce metal smoke.



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### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:** no

**Acute poisoning:** eat, absorption of harmful to the body, eat can cause nausea, abdominal pain, vomiting. Stimulus: no data.

**Other:** /

### 12. ECOLOGICAL INFORMATION

**Ecological toxicity:** no data.

**Biodegradability:** no data.

**The biodegradability:** no data.

**Other harmful effects:** no.

### 13. DISPOSAL CONSIDERATIONS

Recycle loop ring is better than that of scrap processing, waste processing recycling is the best way to recovery.

Waste should be dealt with by qualified professional institutions, to avoid directly into drains or sewers treatment should follow the national and local health and environmental regulations.

### 14. TRANSPORT INFORMATION

**Hazard classification:** not applicable

**UN/NA number:** not applicable

**Packaging categories:** not applicable

**Tags:** not applicable

**Dangerous substances:** not applicable



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**Marine pollutant:** not applicable

### 15. REGULATORY INFORMATION

According to the rules and regulations of China products are not dangerous.

However, the dust and smoke of the product could be harmful.

To understand the local laws and regulations so applicable laws and regulations

- Solid waste pollution prevention law.
- National pneumoconiosis disease prevention and control regulations.
- Metallurgical enterprises pneumoconiosis patient classification and management procedures.

### 16. OTHER INFORMATION

#### **Disclaimer:**

The access to information source of this safety data sheet, we believe is reliable. However, it is the information provided we cannot fully guarantee its reliability. Products make use of "condition or method, storage, use or disposal of products far beyond the scope of our control, also may be beyond our knowledge, so by the series or other reasons not mentioned and cause of the loss, damage to the product, and additional processing cost, our company will not undertake any responsibility. This safety data sheet is only applicable to the products of our offer. This table for our company to provide understanding of the product, your company should according to their own conditions and local laws and regulations for proper handling.

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