

# Material Safety Data Sheet

## \*\*\* Section 1 - Chemical Product and Company Identification \*\*\*

**Chemical Name:** BN-betaine

**Synonyms:** BN-betaine

**Product Use:** as brightening agent in alkaline cyanide and cyanide-free electroplating zinc or cadmium bath.

### Manufacturer Information

Wuhan Pinestone Fortune International Trading Co., Ltd.

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(Monday-Friday 8:30a.m. - 5:00p.m. Beijing Time)

## \*\*\* Section 2 - Composition / Information on Ingredients \*\*\*

CAS #	Component	Percent
68133-60-8	BN-betaine	48%
7732-18-5	Water	52%

## \*\*\* Section 3 - Hazards Identification \*\*\*

### Information pertaining to particular dangers for man and environment

Void

#### Potential Health Effects: Eyes

This product will not cause irritation to the eyes.

#### Potential Health Effects: Skin

Prolonged or repeated skin contact with this product may cause allergic skin sensitization reactions.

#### Potential Health Effects: Ingestion

This product may be harmful if it is swallowed.

#### Potential Health Effects: Inhalation

This product may cause respiratory system irritation.

## \*\*\* Section 4 - First Aid Measures \*\*\*

### General Information

No special measures required.

#### First Aid: Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention or advice if symptoms persist.

#### First Aid: Skin

For skin contact, immediately flush skin with soap and plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms persist. Wash clothing before reuse.

#### First Aid: Ingestion

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Instantly call for medical help. In case of persistent symptoms, get medical attention or advice.

### **First Aid: Inhalation**

If inhaled, immediately remove the affected person to fresh air to supply fresh air. If symptoms persist, get medical aid immediately.

## **\*\*\* Section 5 - Fire Fighting Measures \*\*\***

### **Extinguishing Media:**

Use fire-fighting measures that suit the environment and take into account other materials that may be involved.  
Use carbon dioxide or dry powder.

### **Fire Fighting Equipment / Instructions:**

Firefighters should wear full protective equipment to prevent contact with skin and eyes.

## **\*\*\* Section 6 - Accidental Release Measures \*\*\***

### **Containment Procedures:**

Stop the flow of the material. Avoid contact of the spilled material with skin or clothing. Wear appropriate protective equipment during clean-up. Remove source of ignition.

### **Clean-Up Procedures:**

Mix with proprietary absorbent material and transfer to sealed containers for disposal.

### **Evacuation Procedures:**

Keep unnecessary personnel away from contaminated area.

### **Environmental Protection:**

Thoroughly wash spill area after material pickup is complete.

## **\*\*\* Section 7 - Handling and Storage \*\*\***

### **Handling Procedures:**

Only those trained should use this product. Operations should be carried out in a ventilation area. Keep the container tightly closed when not in use.

### **Storage Procedures:**

Store in a tightly sealed container in a cool, dry, well-ventilated area.

## **\*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\***

### **Components with critical values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

### **Additional Information**

The lists that were valid during the compilation were used as basis.

### **Engineering Controls**

Keep away from sources of ignition.

Use local exhaust ventilation to keep airborne concentrations low when handling this product.

Keep container tightly closed.

### **Personal Protective Equipment**

#### **Personal Protective Equipment: Eyes/face**

Avoid contact with the eyes. Safety glasses recommended during operation.

**Personal Protective Equipment: Skin**

Use impervious gloves, protective clothing. PVC or PE gloves may be most appropriate. For larger quantities, full arm, body protection. It is recommended that gloves be tested to determine suitability for prolonged contact. Use of an impervious apron is recommended.

Wash hands during breaks and at the end of the work.

**Personal Protective Equipment: Ingestion**

Washing hands thoroughly, during breaks and at the end of the work. Do not eat, drink or smoke while working.

**Personal Protective Equipment: Inhalation**

Avoid inhalation of product. Handle in an efficient ventilation area.

**Personal protective Equipment: General**

Do not get in eyes, on skin and on clothing. Eyewash fountains and emergency showers are recommended. Wash thoroughly with soap after handling.

**\*\*\* Section 9 – Physical & Chemical Properties \*\*\***

**Appearance:** Clear brown-yellow to brown-red liquid

**Odor:** Bitter almond smell

**Physical State:** Liquid

**PH:** 5-6

**Density:** 1.19 g/cm<sup>3</sup> (at 20C)

**Solubility:** Water: in any ratio

**Level of Addition:** 100-1000 mg/l

**\*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*****Chemical Stability:**

This is a stable material at normal condition.

**Thermal Decomposition:**

No decomposition if used according to specifications.

**Hazardous reactions:**

No dangerous reactions known

**Conditions to Avoid:**

Keep away from heat, sparks, or open flame. (Any sources of ignition)

**Hazardous Polymerization:**

Will not occur.

**\*\*\* Section 11 – Toxicological Information \*\*\***

**RTECS Number:** Not listed

**LD50:** No data reported

**Carcinogenicity**

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**\*\*\* Section 12 - Ecological Information \*\*\*****General Product Information**

Take care to prevent chemicals from entering the ground, water sources or drainage systems. Do not allow material to be released to the environment without proper governmental permits.

**Environmental Information**

No data for the product is available. This product should be kept out of streams, ponds, lakes, drainage systems, and other water sources.

**\*\*\* Section 13 - Disposal Considerations \*\*\***

**General Information**

It is recommended that disposal should be via an approved contractor and must be specially treated under adherence to local official regulations.

**Disposal Instructions**

Dispose of in a manner consistent with State, and Local environmental regulations.

The generator has the final responsibility to determine the appropriate waster classification, transportation, and disposal.

**\*\*\* Section 14 - Transportation Information \*\*\***

Not dangerous goods.

**ADR/RIC Code/Class:** Not Restricted

**Maritime Transport IMDG Code/Class:** Not Restricted

**Air Transport IATA Code/Class:** Not Restricted

**\*\*\* Section 15 - Regulatory Information \*\*\***

**General Information**

In addition to Federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

**\*\*\* Section 16 – Other Information \*\*\***

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied is given. The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. And it must be recognised that the physical and chemical properties of any product may not be fully understood and the new, possibly hazardous products may arise from reactions between chemicals. It is the buyer's responsibility to ensure that its activities comply with local laws.