

# SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.0  
Creation Date: July 15, 2019  
Revision Date: July 15, 2019

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## SECTION 1: Identification

### 1.1 GHS Product identifier

**Product name** Calcium cyanamide

### 1.2 Other means of identification

**Product number** -

**Other names** Cyanamide, calcium salt; Calcium Cyanamide; Calcium cyanamide

### 1.3 Recommended use of the chemical and restrictions on use

**Identified uses** Industrial and scientific research use.

**Uses advised against** no data available

### 1.4 Supplier's details

**Company** Shanghai Baishun Biotechnology Co., Ltd  
**Address** No. 26, Lane 918, Lianye Road, Zhelin Town, Fengxian District, Shanghai, 201400, China  
**Telephone** +86-21-37581181

### 1.5 Emergency phone number

**Emergency phone number** +86-21-37581181

**Service hours** Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

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## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral

Serious eye damage, Category 1

Specific target organ toxicity – single exposure, Category 3

### 2.2 GHS label elements, including precautionary statements

**Pictogram(s)**



**Signal word**

**Hazard statement(s)**

Danger

H302 Harmful if swallowed

H318 Causes serious eye damage

H335 May cause respiratory irritation

**Precautionary statement(s)****Prevention**

P264 Wash ... thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P271 Use only outdoors or in a well-ventilated area.

**Response**

P301+P317 IF SWALLOWED: Get medical help.  
 P330 Rinse mouth.  
 P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P317 Get medical help.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P319 Get medical help if you feel unwell.

**Storage**

P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.

**Disposal**

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**2.3 Other hazards which do not result in classification**

no data available

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**SECTION 3: Composition/information on ingredients****3.1 Substances**

| Chemical name     | Common names and synonyms | CAS number | EC number | Concentration |
|-------------------|---------------------------|------------|-----------|---------------|
| Calcium cyanamide | Calcium cyanamide         | 156-62-7   | 205-861-8 | 100%          |

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**SECTION 4: First-aid measures****4.1 Description of necessary first-aid measures****If inhaled**

Fresh air, rest.

**Following skin contact**

Remove contaminated clothes. Rinse skin with plenty of water or shower.

**Following eye contact**

Rinse with plenty of water for several minutes (remove contact lenses if easily possible). Refer immediately for medical attention.

**Following ingestion**

Rinse mouth. Give one or two glasses of water to drink. Refer for medical attention .

**4.2 Most important symptoms/effects, acute and delayed**

no data available

**4.3 Indication of immediate medical attention and special treatment needed, if necessary**

no data available

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**SECTION 5: Fire-fighting measures****5.1 Suitable extinguishing media**

Use dry chemical, carbon dioxide or alcohol-resistant foam.

## **5.2 Specific hazards arising from the chemical**

Not combustible (impurities constitute a fire risk). Gives off irritating or toxic fumes (or gases) in a fire. Risk of fire and explosion on contact with water or metals.

## **5.3 Special protective actions for fire-fighters**

Use dry powder. NO carbon dioxide, foam, water.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Cover the spilled material with dry non-combustible inert absorbent. Sweep spilled substance into covered plastic containers. Do NOT wash away into sewer.

### **6.2 Environmental precautions**

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### **6.3 Methods and materials for containment and cleaning up**

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

NO contact with water. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### **7.2 Conditions for safe storage, including any incompatibilities**

Keep in a well-ventilated room. Dry. Well closed. Separated from food and feedstuffs.

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## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Occupational Exposure limit values**

TLV: 0.5 mg/m<sup>3</sup>, as TWA; A4 (not classifiable as a human carcinogen). MAK: (inhalable fraction): 1 mg/m<sup>3</sup>; peak limitation category: II(2); skin absorption (H); pregnancy risk group: C

#### **Biological limit values**

no data available

### **8.2 Appropriate engineering controls**

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### **8.3 Individual protection measures, such as personal protective equipment (PPE)**

#### **Eye/face protection**

Wear safety goggles or eye protection in combination with breathing protection if powder.

#### **Skin protection**

Protective gloves.

### Respiratory protection

Use local exhaust or breathing protection.

### Thermal hazards

no data available

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## SECTION 9: Physical and chemical properties and safety characteristics

|                                                          |                               |
|----------------------------------------------------------|-------------------------------|
| Physical state                                           | Black powder or granular      |
| Colour                                                   | no data available             |
| Odour                                                    | no data available             |
| Melting point/freezing point                             | >300°C                        |
| Boiling point or initial boiling point and boiling range | 258.5°C at 760 mmHg           |
| Flammability                                             | no data available             |
| Lower and upper explosion limit/flammability limit       | no data available             |
| Flash point                                              | 42.1°C                        |
| Auto-ignition temperature                                | no data available             |
| Decomposition temperature                                | no data available             |
| pH                                                       | no data available             |
| Kinematic viscosity                                      | no data available             |
| Solubility                                               | Solubility in water: reaction |
| Partition coefficient n-octanol/water                    | no data available             |
| Vapour pressure                                          | no data available             |
| Density and/or relative density                          | 2.29 g/cm <sup>3</sup>        |
| Relative vapour density                                  | no data available             |
| Particle characteristics                                 | no data available             |

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

Decomposes under the influence of water. This produces cyanamide (see ICSC 0424), ammonia, calcium hydroxide and acetylene. This generates fire and explosion hazard. Attacks many metals. This produces flammable/explosive gas (hydrogen - see ICSC 0001).

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

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## **SECTION 11: Toxicological information**

### **Acute toxicity**

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

### **Skin corrosion/irritation**

no data available

### **Serious eye damage/irritation**

no data available

### **Respiratory or skin sensitization**

no data available

### **Germ cell mutagenicity**

no data available

### **Carcinogenicity**

no data available

### **Reproductive toxicity**

no data available

### **STOT-single exposure**

The substance is severely irritating to the eyes and respiratory tract.

### **STOT-repeated exposure**

no data available

### **Aspiration hazard**

A harmful concentration of airborne particles can be reached quickly when dispersed.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

### **12.2 Persistence and degradability**

no data available

### **12.3 Bioaccumulative potential**

no data available

### **12.4 Mobility in soil**

no data available

### **12.5 Other adverse effects**

no data available

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## **SECTION 13: Disposal considerations**

### **13.1 Disposal methods**

## Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

## Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## SECTION 14: Transport information

### 14.1 UN Number

ADR/RID: UN1403 (For reference only, please check.)      IMDG: UN1403 (For reference only, please check.)      IATA: UN1403 (For reference only, please check.)

### 14.2 UN Proper Shipping Name

ADR/RID: CALCIUM CYANAMIDE with more than 0.1% calcium carbide (For reference only, please check.)      IMDG: CALCIUM CYANAMIDE with more than 0.1% calcium carbide (For reference only, please check.)      IATA: CALCIUM CYANAMIDE with more than 0.1% calcium carbide (For reference only, please check.)

### 14.3 Transport hazard class(es)

ADR/RID: 4.3 (For reference only, please check.)      IMDG: 4.3 (For reference only, please check.)      IATA: 4.3 (For reference only, please check.)

### 14.4 Packing group, if applicable

ADR/RID: III (For reference only, please check.)      IMDG: III (For reference only, please check.)      IATA: III (For reference only, please check.)

### 14.5 Environmental hazards

ADR/RID: No      IMDG: No      IATA: No

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to IMO instruments

no data available

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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

| Chemical name                                                          | Common names and synonyms | CAS number | EC number |
|------------------------------------------------------------------------|---------------------------|------------|-----------|
| Calcium cyanamide                                                      | Calcium cyanamide         | 156-62-7   | 205-861-8 |
| European Inventory of Existing Commercial Chemical Substances (EINECS) |                           |            | Listed.   |
| EC Inventory                                                           |                           |            | Listed.   |
| United States Toxic Substances Control Act (TSCA) Inventory            |                           |            | Listed.   |
| China Catalog of Hazardous chemicals 2015                              |                           |            | Listed.   |
| New Zealand Inventory of Chemicals (NZIoC)                             |                           |            | Listed.   |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS)     |                           |            | Listed.   |
| Vietnam National Chemical Inventory                                    |                           |            | Listed.   |
| Chinese Chemical Inventory of Existing Chemical Substances             |                           |            | Listed.   |

|                                      |         |
|--------------------------------------|---------|
| (China IECSC)                        |         |
| Korea Existing Chemicals List (KECL) | Listed. |

## SECTION 16: Other information

### Information on revision

**Creation Date** July 15, 2019  
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### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

### Other Information

In combination with even small amounts of alcohol the substance causes effects on cardiovascular and central nervous systems resulting in flushing, palpitation, hypotension and hyperventilation. The effects may be delayed. Commercial calcium cyanamide is a crystalline substance which contains trace amounts of calcium carbide which may produce acetylene in production vessels or containers. Reacts violently with fire extinguishing agents such as water. UN 1403: Calcium Cyanamide with more than 0.1% calcium carbide.

**Any questions regarding this SDS, Please send your inquiry to [sds@xixisis.com](mailto:sds@xixisis.com)**

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*Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.*