



**BARIUM (Ba) CRISTAR®**  
1000 PPM SINGLE ELEMENT STD.  
SOLN. FOR ICP-MS IN DILUTED HCl  
IN ACCORDANCE WITH NIST

**MATERIAL SAFETY DATA SHEET  
SDS/MSDS**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifiers**

Product name : Barium (Ba) CRISTAR® 1000 ppm Single Element Std. Soln. for ICP-MS in Diluted HCl In Accordance With NIST

Product Code : 807502

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Industrial & for professional use only.

**1.3 Details of the supplier of the safety data sheet**

Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
New Delhi -110002  
INDIA

Telephone : +91 11 49404040  
Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)

**1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Corrosive to metals (Category 1), H290

Skin irritation (Category 2), H315

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 Label elements**

**Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word

Warning

Hazard statement(s)

H290

May be corrosive to metals.

H315

Causes skin irritation.

Precautionary statement(s)

P280

Wear protective gloves, protective clothing, eye protection, face protection.

P264

Wash thoroughly after handling.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 P332 + P313 If skin irritation occurs: Get medical advice.  
 P363 Wash contaminated clothing before reuse.

Supplemental Hazard Statements none

**2.3 Other hazards**

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

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

**3.1 Mixtures**

**Hazardous ingredients according to Regulation (EC) No 1272/2008**

Component		Classification	Concentration
<b>Hydrochloric acid</b>			
CAS-No.	7647-01-0	Met. Corr. 1; Skin Corr. 1B;	> 1 - < 5 %
EC-No.	231-595-7	STOT SE 3; H290, H314,	
Index-No.	017-002-01-X	H335	
Registration number	01-2119484862-27-XXXX	Concentration limits: >= 25 %: Skin Corr. 1B, H314; 10 - < 25 %: Skin Irrit. 2, H315; 10 - < 25 %: Eye Irrit. 2, H319; >= 10 %: STOT SE 3, H335; >= 0.1 %: Met. Corr. 1, H290;	
<b>Berium Chloride Dihydrate</b>			
CAS-No.	10326-27-9	Acute Tox. 3(oral); Acute Tox.4(inhal); H301, H314	> 0.01 - < 1 %
<b>Water</b>			
CAS-No.	7732-18-5		> 75 - < 99 %
EC-No.	231-791-2		

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

Assure fresh air breathing. Allow the victim to rest.

**In case of skin contact**

Wash contaminated clothing before reuse. Specific treatment (see on this label). Wash with plenty of soap and water. If skin irritation occurs : Get medical advice.

**In case of eye contact**

Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

**If swallowed**

Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting.

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

**Symptoms relating to use:** Causes skin irritation.

**4.3 Indication of any immediate medical attention and special treatment needed**

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Foam, Dry powder, Carbon dioxide, Water spray, Sand.

**Unsuitable extinguishing media:** Do not use a heavy water stream.

**Surrounding fires:** Use water spray or fog for cooling exposed containers.

### 5.2 Special hazards arising from the substance or mixture

Under fire conditions, hazardous fumes will be present.

### 5.3 Advice for firefighters

**Protection against fire:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Special procedures:** Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

### 5.4 Further information

No data available

## SECTION 6: Accidental release measures

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

**For emergency responders:** Equip cleanup crew with proper protection. Ventilate area.

**For non-emergency personnel:** Evacuate unnecessary personnel.

### 6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

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

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

### 6.4 Reference to other sections

See section 8. Exposure controls/personal protection

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Handling:** Wash thoroughly after handling.

**Technical protective measures:** Provide good ventilation in process area to prevent formation of vapour.

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

**Storage:** Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

**Storage - away from:** Strong bases, Strong acids, Sources of ignition, Direct sunlight.

### 7.3 Specific end use(s)

None

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of

contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### **Body Protection**

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### **Control of environmental exposure**

Do not let product enter drains.

## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

a) Appearance	Form: clear, liquid Colour: colourless
b) Odour	Characteristic
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

### **9.2 Other safety information**

No data available

## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

No data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

Direct sunlight, Extremely high or low temperatures.

**10.5 Incompatible materials**

Strong acids, Strong bases.

**10.6 Hazardous decomposition products**

**Hazardous decomposition products:** Fumes, Carbon monoxide, Carbon dioxide.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

No data available

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 12: Ecological information****12.1 Toxicity**

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 Results of PBT and vPvB assessment

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

## 12.6 Other adverse effects

**Environmental precautions:** Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 1789

IMDG: 1789

IATA: 1789

### 14.2 UN proper shipping name

ADR/RID: HYDROCHLORIC ACID

IMDG: HYDROCHLORIC ACID

IATA: Hydrochloric acid

### 14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

### 14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

No data available

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

### Further information

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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.