

# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2023  
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## SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION -----

**Product Name** L-Cysteine hydrochloride, monohydrate  
**Product Code(s)** CB0133  
**Recommended Use** For Laboratory Research Use Only  
Not for Human or Animal Drug Use

**Supplier** Bio Basic Inc.  
**Address** 20 Konrad Crescent, Markham, Ontario,  
Canada, L3R 8T4  
**Telephone** (905) 474 4493  
**Fax** (905) 474 5794  
**For Chemical Emergency Phone#** (416) 995 9730

## SECTION 2. ----- HAZARDS IDENTIFICATION -----

### Emergency Overview

**WHMIS Classification** Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)  
**Skin Corrosion/Irritation** Category 2  
**Serious Eye Damage/Eye Irritation** Category 2  
**Specific target organ toxicity (single exposure)** Category 3  
**Target Organs** Respiratory system.

### Label Element



**Single Word** – Warning

### **Hazard Statements**

Causes skin irritation  
Causes serious eye irritation  
May cause respiratory irritation

### **Precautionary Statements**

### **Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wash face, hands and any exposed skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.

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

### Response

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Call a POISON CENTER/ doctor if you feel unwell. Take off contaminated clothing.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

### Disposal

Dispose of contents/container to an approved waste disposal plant.

### Other Hazards

Light sensitive

## SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

Chemical Name	EC No.	CAS-No	Weight %
L-Cysteine hydrochloride, monohydrate	200-157-7	7048-04-6	>95

## SECTION 4. ----- FIRST-AID MEASURES -----

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

### In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician

### In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

### If swallowed

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Most important symptoms/effects:** None reasonably foreseeable.

**Notes to Physician:** Treat symptomatically

## SECTION 5. ----- FIRE FIGHTING MEASURES -----

### Suitable extinguishing media

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

### Special protective equipment for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or

equivalent) and full protective gear.

**Hazardous combustion products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Hydrogen chloride gas.

**Explosion data - sensitivity to mechanical impact**

No data available

**Explosion data - sensitivity to static discharge**

No data available

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**NFPA**

Health	Flammability	Instability	Physical Hazards
2	1	0	N/A

**SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----**

**Personal precautions**

Avoid dust formation. Avoid breathing vapours, mist or gas.

**Environmental precautions**

Should not be released into the environment.

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

Sweep up and shovel. Keep in suitable, closed containers for disposal.

**SECTION 7. ----- HANDLING AND STORAGE-----**

**Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

Air and light sensitive.

**SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----**

**Personal protective equipment**

**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand 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.

Glove material: Nitrile rubber, Neoprene, Natural rubber, PVC.

**Eye protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product.

Remove and wash contaminated clothing and gloves, including the inside, before re-use.

Wash hands before breaks and after work.

#### **Specific engineering controls**

Use mechanical exhaust or laboratory fumehood to avoid exposure.

### **SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -**

#### **Appearance**

Form	solid
Colour	white

#### **Safety data**

pH	1.0 - 2 at 25 g/l
Melting point/freezing point	175 - 177.8 °C / 347 - 352 °F
Boiling point	No data available
Flash point	No data available
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Density	No data available
Water solubility	100 g/l at 25 °C (77 °F)
Partition coefficient: n-octanol/water	No data available
Relative vapour density	No data available
Odour	No data available
Odour Threshold	No data available
Evaporation rate	No data available
Molecular formula	C <sub>3</sub> H <sub>7</sub> N O <sub>2</sub> S. HCl. H <sub>2</sub> O
Molecular weight	175.64

### **SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -**

#### **Chemical stability**

Air sensitive. Light sensitive.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Incompatible products. Excess heat. Avoid dust formation. Exposure to air. Exposure to light.

**Materials to avoid**

Strong oxidizing agents, Metals

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Hydrogen chloride gas.

**Hazardous Polymerization:** Hazardous polymerization does not occur.

**SECTION 11. ----- TOXICOLOGICAL INFORMATION -----****Acute toxicity****Oral LD50**

No data available

**Inhalation LC50**

No data available

**Dermal LD50**

No data available

**Other information on acute toxicity**

No data available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** Irritating to eyes, respiratory system and skin

**Sensitization:** No information available

**Carcinogenicity:** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No.	IARC	NTP	ACGIH	OSHA	Mexico
Cysteine hydrochloride, L-(+)-, monohydrate	7048-04-6	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects:** No information available

**Reproductive Effects:** No information available.

**Developmental Effects:** No information available

**Teratogenicity:** No information available.

**STOT - single exposure:** Respiratory system

**STOT - repeated exposure:** None known

**Aspiration hazard:** No information available

**Symptoms / effects, both acute and delayed:** No information available

**Endocrine Disruptor Information:** No information available

**Other Adverse Effects:** The toxicological properties have not been fully investigated.

**Potential health effects****Inhalation**

May be harmful if inhaled. May cause respiratory tract irritation.

<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

## SECTION 12. ----- ECOLOGICAL INFORMATION -----

### **Ecotoxicity**

Do not empty into drains.

### **Persistence and degradability**

Soluble in water Persistence is unlikely based on information available.

### **Bioaccumulation/accumulation potential**

No data available

### **Mobility in soil**

Will likely be mobile in the environment due to its water solubility.

### **PBT and vPvB assessment**

No data available

### **Other adverse effects**

No data available

## SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

### **Product**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### **Contaminated packaging**

Dispose of as unused product.

## SECTION 14. ----- TRANSPORT INFORMATION -----

### **TDG (Canada)**

Not dangerous goods

### **IMDG**

Not dangerous goods

### **IATA**

Not dangerous goods

## SECTION 15. ----- REGULATORY INFORMATION -----

All of the components in the product are on the following Inventory lists: China X = listed Australia U.S.A. (TSCA) Canada (DSL/NDL) Europe (EINECS/ELINCS/NLP) Australia (AICS) Korea (ECL) China (IECSC) Japan (ENCS) Philippines (PICCS).

### **International inventories**

<b>Components</b>	<b>DSL</b>	<b>NDL</b>	<b>TSCA</b>	<b>EINECS</b>	<b>ELINCS</b>	<b>PICCS</b>	<b>ENCS</b>	<b>AICS</b>	<b>KECL</b>	<b>IECSC</b>
Cysteine hydrochloride, L-(+)-, monohydrate	-	-	-	-	-	X	X	X	KE-01430	X

## Legend

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

## Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

## **SECTION 16. ----- OTHER INFORMATION-----**

Further information: no limited for paper copy, just for internal uses.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

## **Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of SDS**