

1. Identification of the substance/preparation and of the company

Product details

Trade Name: L-Cysteine base

Product Name: L-Cysteine

Catalogue-No.: M6094

Manufacturer /Supplier:

Genaxxon BioScience GmbH, Söflinger Str. 100, 89077 Ulm/Germany.
Tel.: +49 (0)731 3608 123

Further information available from:

Genaxxon BioScience GmbH, Söflinger Str. 100, 89077 Ulm/Germany.
Tel.: +49 (0)731 3608 123

Information in case of emergency:

Poison Information Centre Mainz, Germany
Tel.: +49 (0)6131 19240 / 24 h

MSDS-No: cys base/1

NOTE: If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

Product Use:

This products are for laboratory research use only and are not intended for human or animal diagnostics, therapeutics or other clinical uses.

2. Composition/information on ingredients

Chemical characterisation

Product Name	Hazardous symbol	CAS #	EC no	Annex I / Index Number
L-Cysteine	Xn, R 22	52-90-4	200-158-2	none
Synonyms	(R)-2-Amino-5-mercaptopropionic acid – Cysteine base			
Molecular Weight:	121.16 g/mol		Formula:	C3H7NO2S

3. Hazardous identification

Hazard description: Not hazardous according to Directive 67/548/EEC.

Information concerning particular hazards for human and environment:

Not applicable.

4. First-aid measures

After inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing becomes difficult, call a physician.

After contact with skin: In case of contact, immediately wash skin with soap and copious amounts of water.

After contact with eyes: Rinse immediately with plenty of water and seek medical advice. Assure adequate flushing by separating eyelids with fingers.

After swallowing: If swallowed, wash out mouth with plenty of water provided person is conscious. Call for doctor immediately.

5. Fire-fighting measures

Suitable extinguishing agents: Water Spray. Carbon Dioxide. Dry chemical powder, or appropriate foam.

Special risks: Specific Hazard(s): Not inflammable. Fumes heavier than air. Emits toxic fumes under fire conditions.

Protective equipment (For firefighters): Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental release measures

Procedure(s) of personal precaution(s):

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust. Avoid dust formation. Ensure adequate ventilation.

Environmental precautions:

Do not let product enter drains

Measures for cleaning/collecting:

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Additional information: None.

7. Handling and storage

Handling

Information for safe handling: Avoid formation of dust. Provide appropriate exhaust ventilation at places where dust is formed. Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Information about fire – and explosion protection: No special measures required.

Storage:

Requirements to be met by storerooms and receptacles: Keep bottles well closed.

Information about storage in one common storage facility: Keep bottles well closed.

Further information about storage conditions: Keep tightly closed. Store in cool place.

Special requirements: Store under inert gas. Air sensitive.

8. Exposure controls / personal protection

Additional information about design of technical facilities: No further data.

Engineering controls: Safety shower and eye bath.

Personal protective equipment: Respirator, chemical safety goggles, heavy rubber gloves.

General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protection of hands: Heavy rubber gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Materials of gloves: The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Eye protection: Chemical safety goggles.

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.



9. Physical and chemical properties

General Information

Form: Powder - Solid
Colour: colourless
Odour: characteristic

Change in conditions

Melting point/Melting range: 220-228°C
Boiling point/Boiling range: No data available

Flash point: Not applicable
Self-ignition: data not available
Danger of explosion: data not available
SG/Density: 0.5 g/cm³
Powder density: ca. 300 kg/m³
Solubility in / Miscibility with water: soluble (280 g/L, colourless, 25°C)
pH value at 20°C: data not available

10. Stability and reactivity

Stability: Stable under recommended storage conditions.

Thermal composition / conditions to be avoided: Avoid strong heating.

Materials to avoid: Strong acids, Strong bases, Strong oxidizing agents, Nitric acid.

Dangerous decomposition products: Carbon monoxide, Carbon dioxide, Nitrogen oxides (NO_x), Sulphur oxides.

Hazardous Polymerisation: Will not occur.

11. Toxicological information

Acute Toxicity

LD₅₀ (oral – Rat): >1890 mg/kg

Remarks:

Behavioral: Somnolence (general depressed activity).

Lungs, Thorax, or Respiration: Dyspnea.

Kidney, Ureter, Bladder: Other changes in urine composition.

Irritation Data: No data available

Sensitisation: No data available.

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

Chronic exposure

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.

Additional Toxicological Information

After inhalation:	May be harmful if inhaled. Material may be irritating to mucous membrane and upper respiratory tract.
After skin contact:	May be harmful if absorbed through skin. May cause irritation of skin
After contact with eyes:	May cause irritation of eyes
After swallowing:	May be harmful if swallowed.

The product should be treated with usual precautions while handling chemicals.

12. Ecological Information

Biological Degradation

Biological Degradableness: good (>70%). (Good to eliminate.)

General notes:

If handled accordingly no ecological problems are expected.

13. Disposal considerations

Product:

Recommendation: Must not be disposed together with household garbage. Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleaning agents: Water, if necessary together with cleansing agents.

14. Transport information

Land transport ADR/RID (cross border)

ADR/RID class: Non-hazardous for road transport.

Maritime transport IMDG:

IMDG Class: Non-hazardous for sea transport.

Marine pollutant: No

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: Non-hazardous for air transport.

15. Regulatory information

Classification and Labelling according to EU guidelines:

Indication of danger: Xn

R-Phrases: R 22.

National Regulations: Germany

Waterhazard class: WGK 1 (Self-assessment).

16. Other 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. Genaxxon BioScience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Disclaimer

This product is for R&D use only. Not for drug, household or other uses.