



Lysine

Safety Data Sheet

Version 1.1
Revision date 01/09/2012/LM-IA

SECTION 1. Product and company identification

Chemical type : Substance
Substance name : Lysine
CAS No. : 923-27-3
Product code : RC-067
Formula : C₆H₁₄N₂O₂
Synonyms : 2,6-diaminohexanoic acid, D- / D-2,6-diaminohexanoic acid / lysine, D-
Company identification : G-Biosciences/ Geno Technology, Inc.
9800 Page Avenue
St. Louis, MO 63312-1429, USA
Tel.1-800-628-7730
<http://www.GBiosciences.com>
Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

SECTION: 2. Hazards identification

2.1. Emergency Overview

Physical state : Solid
Appearance : Solid
Colour : Colourless
Odour : No data available

Lysine(923-27-3)

2.2. OSHA Regulatory Status

No additional information available

2.3. Potential health effects

Symptoms/injuries : No data available.

2.4. Potential environmental effects

No additional information available

SECTION: 3. Composition/information on ingredients

Name	CAS No.	%
Lysine	923-27-3	100

4.1. First aid procedures

First-aid measures general : If you feel unwell, seek medical advice.
First-aid measures after inhalation : Remove the victim into fresh air.
First-aid measures after skin contact : Wash immediately with lots of water (15 minutes)/shower.
First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion : Rinse mouth with water. Call Poison Information Centre (www.big.be/antigif.htm).

4.2. Note to physicians

No additional information available

SECTION: 5. Firefighting measures

5.1. Flammable properties

Fire hazard : DIRECT FIRE HAZARD. No data available on direct fire hazard. INDIRECT FIRE HAZARD. No data available on indirect fire hazard.
Explosion hazard : DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. No data available on indirect explosion hazard.
Reactivity : On burning; release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Polyvalent foam. ABC powder. Carbon dioxide.

5.3. Protection for firefighters

Firefighting instructions : Dilute toxic gases with water spray.
Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus. Heat/fire exposure: gas-tight suit.

Lysine

Safety Data Sheet

SECTION: 6. Accidental release measures

6.1. Personal precautions

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods for containment

For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.

6.4. Methods for clean up

Methods for cleaning up : Prevent dust cloud formation. Scoop solid spill into closing containers. Wash clothing and equipment after handling.

6.5. Other information

No additional information available

6.6. Spill or leak statements by type of chemical

No additional information available

SECTION: 7. Handling and storage

7.1. Handling

Precautions for safe handling : Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

7.2. Storage

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.
Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents.
Storage area : Store in a cool area. Store in a dry area. Meet the legal requirements.
Special rules on packaging : SPECIAL REQUIREMENTS: closing, watertight, dry, clean, correctly labelled, meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials : SUITABLE MATERIAL: No data available. MATERIAL TO AVOID: No data available.

SECTION: 8. Exposure controls/personal protection

8.1. Exposure guidelines

No additional information available

8.2. Engineering controls

No additional information available

8.3. Personal protective equipment (PPE)

Materials for protective clothing : GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: No data available. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available.
Hand protection : Gloves.
Eye protection : Safety glasses. In case of dust production: protective goggles.
Skin and body protection : Protective clothing.
Respiratory protection : Dust formation: dust mask.

SECTION: 9. Physical and chemical properties

Physical state : Solid
Appearance : Solid.
Molecular mass : 146.19 g/mol
Colour : Colourless.
Odour : No data available.
Odour threshold : No data available
pH : No data available
Melting point : 221 °C

Lysine

Safety Data Sheet

Solidification point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.12
Density	: 1120 kg/m ³
Solubility	: Literature reports: moderately soluble in water.
Log Pow	: -2.82
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Other properties	: Hygroscopic.

SECTION: 10. Stability and reactivity

10.1. Chemical stability

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

Unstable on exposure to moisture.

10.2. Conditions to avoid

No additional information available

10.3. Incompatible materials

No additional information available

10.4. Hazardous decomposition products

No additional information available

10.5. Possibility of hazardous reactions

No additional information available

SECTION: 11. Toxicological information

Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION: 12. Ecological information

12.1 Ecotoxicity

No additional information available

12.2. Persistence and degradability

Lysine(923-27-3)	
Persistence and degradability	Literature reports: not readily degradable in water.

12.3. Bioaccumulation/Accumulation

Lysine(923-27-3)	
Log Pow	-2.82
Bioaccumulative potential	Bioaccumulation: not applicable.

Lysine

Safety Data Sheet

12.4. Mobility in environmental media

No additional information available

12.6. Other adverse effects

No additional information available

SECTION: 13. Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.

SECTION: 14. Transport information

14.1. Basic shipping description

No additional information available

14.2 Additional information

Other information : No supplementary information available.

State during transport (ADR-RID) : Rail and road transport: not subject to ADR-RID.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION: 15. Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION: 16. Other information

HMIS III Rating

No additional information available

SDS US (ANSI) GBiosciences