



Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Serine (L) USP

30-5236

Section 1: Identification

Product Name Serine (L) USP
Commercial Name L-Serine
Product Use Various use (drugs, nutritional, industrial)
Restrictions On Use N/A
Product Code 30-5236
Company PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: N/A
CFR 1910.1200
Signal Word NON-HAZARDOUS
Hazard Statement(s) MAY CAUSE EYE AND SKIN IRRITATION.
Pictogram(s) or Symbol(s)

Precautionary Statement(s):

Prevention N/A
Response May cause eye and skin irritation. It will increase the biological oxygen demand (BOD) of water.
Storage N/A
Disposal N/A

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components L-Serine
% By Weight 98.5-101.0%
CAS# 56-45-1
Molecular Weight 105.09
Chemical Formula C₃H₇NO₃
Synonym(s) (S)-2-Amino-3-hydroxypropionic acid

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Serine (L) USP	56-45-1	98.5-101.0%	N/A	N/A

Section 4: First-Aid Measures

Inhalation Immediately relocate to a fresh air environment. Rinse mouth with water. If not breathing, give artificial respiration. If breathing becomes difficult, give oxygen and seek medical attention.

Skin Contact Wash with soap and copious amounts of water. If irritation persists, seek medical attention.

Eye Contact Immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers. If contact lenses are being worn, remove lenses and continue rinsing. Seek medical attention.

Ingestion Rinse mouth with water and seek medical attention.

Symptoms/Effects**Acute** N/A**Delayed** N/A**Immediate Medical Attention**

No information available.

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Water spray, carbon dioxide, dry chemical powder/foam

Unsuitable Extinguishing Media

N/A

Products of Combustion

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Upon combustion will result in carbon monoxide, carbon dioxide and nitrogen oxide being released.

Firefighters Special Equipment and Precautions

No information available.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Use personal protection, Make spills wet to prevent the generation of dust and then, sweep up into a closed container. Environmental precautions: Do not discharge into sewer, river, underground water, etc. Methods and material for containment and cleaning up: After recovering, wash away spilled area with plenty of water. Reference to other sections: Personal protection: see section 8

Section 7: Handling and Storage

Precautions for safe handling: Follow good industrial practice in housekeeping and personal hygiene. Wear personal protective equipment as outlined in section 8. Conditions for safe storage, including any incompatibilities: Store in closed containers in a dry area. Avoid humidity, sunlight and high temperature.

Section 8: Exposure Controls/Personal Protection**Exposure Limits**

Contains no substance with occupational exposure limit value

Engineering Controls

N/A

Personal Protection

Respiratory protection: Dust mask or appropriate respirator. Utilize local exhaust ventilation. Protective gloves: Rubber Eye protection: Chemical safety goggles. Other protective equipment: Wear appropriate laboratory apparel, protect exposed skin. Occupational exposure limits: Not established

Section 9: Physical and Chemical Properties

Appearance	White crystals or crystalline powder		
Odor	N/A		
Odor Threshold	N/A		
Melting Point	228°C (decomposes)	pH	5.2-6.2 (1.0g in 10 mL of H ₂ O)
Freezing Point	N/A	Vapor Pressure	N/A
Boiling Point/Range	N/A	Vapor Density	N/A
Decomposition temperature	N/A	Viscosity	N/A
Partition Coefficient: n-octanol/water	N/A	Evaporation Rate	N/A
Flash Point	N/A	Autoignition temperature	N/A
Flammability	N/A	Flammability or Explosive Limits:	
		Lower	N/A
		Upper	N/A
Solubility(ies)	38 g/100g H ₂ O (20°C)		
Other	N/A		

Section 10: Stability and Reactivity

Reactivity	The following applies in general to flammable organic substances and mixtures; in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Chemical Stability	Stable under normal temperature and pressures
Hazardous Polymerization	Nitrogen oxides (combustion)
Conditions to Avoid	Humidity and high temperature. In presence of moisture, will oxidize and darken.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Nitrogen oxides (combustion)

Section 11: Toxicological Information

RTECS	N/A
Acute Toxicity	LD ₅₀ = 14.0 g/kg rat
Skin Corrosion/Irritation	May cause skin irritation. No specific data available
Serious Eye Damage/Irritation	May cause eye irritation. No specific data available
Respiratory or Skin Sensitization	N/A
Germ Cell Mutagenicity	N/A
Carcinogenicity	N/A
Reproductive Toxicity	N/A
Routes of Entry	N/A

Symptoms Related to Exposure

N/A

Potential Health Effects

N/A

Target Organ(s) N/A**Section 12: Ecological Information****Ecotoxicity**

No data available.

Persistence and Degradability

BOD= 0.609 g/g

Bioaccumulative Potential

No data available

Mobility in Soil

No data available

Other Adverse Effects

WGK class (Europe):1 (group classification according to VwVwS / 17 May 1999, Germany)

Section 13: Disposal Considerations**Waste Disposal**

Dispose of the material as you would with a non-hazardous material in accordance with all applicable national, state and local regulations.

Disposal of Container

Dispose of the material as you would with a non-hazardous material in accordance with all applicable national, state and local regulations.

Other Considerations

N/A

Section 14: Transport Information**DOT Classification**

Avoid humidity and high temperature. Prevent damage of the container. 14.1-14.6 Not classified as dangerous in meaning of transport regulations. 14.7 Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC code.

Section 15: Regulatory Information**Regulations**

Safety, health, and environmental regulations/legislation specific for the substance or mixture EU regulations: Major Accident Hazard: 96/82/EC Legislation: Directive 96/82/EC does not apply Regulation(EC) No.1005/2009 on substances that deplete the ozone layer: not regulated Regulation(EC) No.850/2004 of the European Parliament and of the Council of 29 April 2004 on Directive 79/117/EEC: not regulated Regulation (EC) No689/2008 concerning the export and import of dangerous chemicals: not regulated Substance of very high concern(SVHC): This product does not contain substance of very high concern above the respective regulatory limit (> 0.1% (w/w) Regulation (EC) No.1907/2006(REACH), Article 57)

Other

Other National Legislation None especially. The information given in this Safety Data Sheet does not replace the users own assessment of workplace risk as required by national, state and local health and safety legislation. Chemical safety assessment For this product a chemical safety assessment was not carried out.

Section 16: Other Information

The information contained in this SDS is, to the best of our knowledge true and accurate. Any recommendations or suggestions made are without guarantee, since the conditions of use are beyond our control.