



DATE PREPARED: 5/29/2015

Section 1. Product and Company Identification

Product Name L-Serine CAS Number 56-45-1

Parchem - fine & specialty chemicals EMERGENCY RESPONSE NUMBER

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Section 2. Hazards Identification

Classification of the substance or mixture: Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements: Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS: None

Section 3. Composition / Information on Ingredients

Common Name L-Serine

Synonym(s) (S)-2-Amino-3-hydroxypropionic acid

Formula $C_3H_7NO_3$ CAS Number 56-45-1

Section 4. First Aid Measures

Description of 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 with soap and plenty of water. In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11 Indication of any immediate medical attention and special treatment needed: No data available

Section 5. Firefighting Measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.





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Special hazards arising from the substance or mixture: Carbon oxides, Nitrogen oxides (NOx)

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: No data available

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Avoid dust

formation. Avoid breathing vapors, mist or gas. For personal protection see section 8.

Environmental precautions: No special environmental precautions required.

Methods and materials for containment and cleaning up: Sweep up and shovel. Keep in

suitable, closed containers for disposal.

Reference to other sections: For disposal see section 13.

Section 7. Handling and Storage

Precautions for safe handling: Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place. Storage class (TRGS 510): Non Combustible Solids

Section 8. Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls: General industrial hygiene practice.

Personal protective equipment

Eye/face protection: 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.





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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.

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).

Control of environmental exposure: No special environmental precautions required.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form: Powder Colour: White

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting point/range: 222 °C (432 °F)

Initial boiling point and boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: No data available Vapor density: No data available Relative density: No data available Water solubility: No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available **Decomposition temperature:** No data available

Viscosity: No data available

Explosive properties: No data available **Oxidizing properties:** No data available

Other safety information: No data available

Section 10. Stability and Reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No data available

Conditions to avoid: No data available

Incompatible materials: Strong oxidizing agents





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Hazardous decomposition products: In the event of fire: see section 5

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available Respiratory or skin sensitization: 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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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

Toxicity: No data available

Persistence and degradability: No data available Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety

assessment not required/not conducted

Other adverse effects: No data available





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Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT (US): Not dangerous goods **IMDG:** Not dangerous goods **IATA:** Not dangerous goods

Section 15. Regulatory Information

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: No SARA Hazards

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

L-Serine

CAS-No. 56-45-1

New Jersey Right To Know Components

L-Serine

CAS-No. 56-45-1

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating Health hazard: 0

Chronic Health Hazard:

Flammability: 0 Physical Hazard: 0

NFPA Rating Health hazard: 0 Fire Hazard: 0

Reactivity Hazard: 0





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Section 16. Other Information

Disclaimer: 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.

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