



Section 1. Product and Company Identification

Product Name L-Asparagine Monohydrate
CAS Number 5794-13-8

Parchem - fine & specialty chemicals
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EMERGENCY RESPONSE NUMBER
CHEMTEL
Toll Free US & Canada: 1 (800) 255-3924
All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture
Not classified as a hazardous substance or mixture

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200):
Based on available data, the classification criteria are not met

GHS Label Elements
Pictograms: N/A
Signal word: N/A

Hazard and precautionary statements
None

Section 3. Composition / Information on Ingredients

Common Name L-Asparagine Monohydrate
Synonym(s) L-2-Aminosuccinamic acid
Formula $C_4H_8N_2O_3 \cdot H_2O$
CAS Number 5794-13-8

COMPONENT	CAS NUMBER	CONCENTRATION
L-Asparagine Monohydrate	5794-13-8	> 95% wt.
L-Asparagine	70-47-3	-

Section 4. First Aid Measures

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.



Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.

Ingestion: Do not induce vomiting. Obtain medical attention.

Most important symptoms/effects: None reasonably foreseeable.

Notes to Physician: Treat symptomatically

Section 5. Firefighting Measures

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

Unsuitable Extinguishing Media: No information available

Flash Point: No information available

Method: No information available

Autoignition Temperature: Not applicable

Explosion Limits

Upper: No data available

Lower: No data available

Sensitivity to Mechanical Impact: No information available

Sensitivity to Static Discharge: No information available

Specific Hazards Arising from the Chemical: Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products: Nitrogen oxides (NO_x) Carbon monoxide (CO) Carbon dioxide (CO₂)

Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Rating

Health: 1

Flammability: 1

Reactivity: 0

Section 6. Accidental Release Measures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental Precautions: Should not be released into the environment.

Methods for Containment and Clean Up: Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.



Section 7. Handling and Storage

Handling: Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Avoid ingestion and inhalation. Avoid dust formation. Wash hands before breaks and immediately after handling the product.

Storage: Keep containers tightly closed in a dry, cool, and well-ventilated place.

Section 8. Exposure Controls / Personal Protection

Exposure Guidelines: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures: Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

Section 9. Physical and Chemical Properties

Physical State: Powder Solid

Appearance: White

Odor: Odorless

Odor Threshold: No information available

pH (20°C): 4 - 5 (0.1M in water)

Melting Point/Range: 233 - 235°C / 451.4 - 455°F

Boiling Point/Range: No information available

Flash Point: No information available

Evaporation Rate: Not applicable

Flammability (solid, gas): No information available

Flammability or explosive limits

Upper: No data available

Lower: No data available

Vapor Pressure: No information available

Vapor Density: Not applicable

Relative Density: No information available

Solubility: 30 g/L @ 20°C

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

Autoignition Temperature: Not applicable
Decomposition Temperature: No information available
Viscosity: Not applicable
Molecular Formula: C₄H₈N₂O₃ · H₂O
Molecular Weight: 150.14

Section 10. Stability and Reactivity

Reactive Hazard: None known, based on information available
Stability: Stable under normal conditions.
Conditions to Avoid: Incompatible products. Excess heat. Avoid dust formation.
Incompatible Materials: Strong oxidizing agents
Hazardous Decomposition Products: Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)
Hazardous Polymerization: Hazardous polymerization does not occur.
Hazardous Reactions: None under normal processing.

Section 11. Toxicological Information

Acute Toxicity

Product Information No acute toxicity information is available for this product
Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50: Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Mist LC50: Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.

Component Information

Toxicologically Synergistic Products: No information available

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

Irritation: May cause irritation
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
Asparagine L, monohydrate	5794-13-8	Not listed	Not listed	Not listed	Not listed	Not listed
L-Asparagine	70-47-3	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: None known
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.

Section 12. Ecological Information

Ecotoxicity: No information available.
Persistence and Degradability: Soluble in water. Persistence is unlikely based on information available.
Bioaccumulation/Accumulation: No information available.
Mobility: Will likely be mobile in the environment due to its water solubility.

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: Not regulated
TDG: Not regulated
IATA: Not regulated
IMDG: Not regulated

Section 15. Regulatory Information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
L-Asparagine Monohydrate	-	-	-	-	-		X	X	X	X	-
L-Asparagine	X	X	-	200-735-9	-		X	X	X	X	X

X = Listed

U.S. Federal Regulations

TSCA 12(b): Not applicable
SARA 313: Not applicable
SARA 311/312 Hazardous Categorization
Acute Health Hazard: No
Chronic Health Hazard: No
Fire Hazard: No



Sudden Release of Pressure Hazard: No

Reactive Hazard: No

Clean Water Act: Not applicable

Clean Air Act: Not applicable

OSHA - Occupational Safety and Health Administration: Not applicable

CERCLA: Not applicable

California Proposition 65: This product does not contain any Proposition 65 chemicals

State Right-to-Know: Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant: N

DOT Severe Marine Pollutant: N

U.S. Department of Homeland Security: This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade: No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class: Non-controlled

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.

REVISION DATE: 8/5/2016