



Section 1. Product and Company Identification

**Product Name** L-Arginine  
**CAS Number** 74-79-3

**Parchem - fine & specialty chemicals**  
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**New Rochelle, NY 10801**  
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Collect Calls Accepted

Section 2. Hazards Identification

**Classification of the substance or mixture**  
**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute aquatic toxicity (Category 2), H401

**GHS Label Elements**

**Pictograms:** N/A

**Signal word:** N/A

**Hazard and precautionary statements**

**Hazard Statements**

H401 Toxic to aquatic life.

**Precautionary Statements**

P273 Avoid release to the environment.

P501 Dispose of contents/ container to an approved waste disposal plant.

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

Section 3. Composition / Information on Ingredients

**Common Name** L-Arginine  
**Synonym(s)** (S)-2-Amino-5-guanidinopentanoic acid  
**Formula** C<sub>6</sub>H<sub>14</sub>N<sub>4</sub>O<sub>2</sub>  
**CAS Number** 74-79-3

COMPONENT	CAS NUMBER	CONCENTRATION
L-Arginine	74-79-3	≤ 100%

#### Section 4. First Aid Measures

##### Description of first-aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin contact:** Wash off with soap and plenty of water. Consult a physician.

**Eye contact:** Flush eyes with water as a precaution.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labelling 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.

**Special hazards arising from the substance or mixture:** Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

**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. Ensure adequate ventilation.

For personal protection see section 8.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### 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.

**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:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**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.

**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:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9. Physical and Chemical Properties

**Information on basic physical and chemical properties**

**Appearance:** Powder

**Color:** White

**Odor:** No data available

**Odor Threshold:** No data available

**pH:** 10.5 - 12 at 87 g/l at 25°C (77°F)

**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):** The product is not flammable. - Flammability (solids)

**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:** 87.1 g/l at 20°C (68°F) - Completely soluble  
**Partition coefficient (n-Octanol/water):** log Pow: -4.199 at 20°C (68°F)  
**Auto-ignition temperature:** The substance or mixture is not classified as self-heating.  
**Decomposition temperature:** No data available  
**Viscosity:** No data available  
**Explosive properties:** No data available  
**Oxidizing properties:** No data available

#### Other safety information

**Bulk density:** 640 kg/m<sup>3</sup>

#### 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

#### Hazardous decomposition products:

**Other decomposition products:** No data available

In the event of fire: see section 5

#### Section 11. Toxicological Information

##### Information on toxicological effects

###### Acute toxicity

**LD50 Oral - Rat - male and female:** > 5,110 mg/kg

**Inhalation:** No data available

**Dermal:** No data available

###### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

(OECD Test Guideline 404)

###### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

**Respiratory or skin sensitization:** No data available

### **Germ cell mutagenicity**

reverse mutation assay

S. typhimurium

Result: negative

### **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:** Repeated dose Rat - female - Oral - NOAEL: 3,565.1 mg/kg

## Section 12. Ecological Information

**Toxicity:** Toxicity to fish semi-static test LC50 - Brachydanio rerio (zebrafish) - 2.8 mg/l - 96 h (OECD Test Guideline 203)

### **Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d

Result: 60 % - Readily biodegradable

(OECD Test Guideline 301C)

**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:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

## 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-Arginine (CAS-No. 74-79-3)

Revision Date

**New Jersey Right to Know Components**

L-Arginine (CAS-No. 74-79-3)

Revision Date

**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:** 0

**Flammability:** 0

**Reactivity:** 0

**NFPA Rating**

**Health:** 0

**Flammability:** 0

**Reactivity:** 0



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: 8/25/2015

