

Material Safety Data Sheet (MSDS)

Product Name: L- Arginine USP Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

Rawpharma Biz Pvt Ltd

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1. Identification of the Substance/Preparation and Company

- **Product Name:** L-Arginine USP Grade
- **Chemical Name:** L-Arginine
- **Synonyms:** (S)-2-Amino-5-guanidinopentanoic acid
- **CAS No.:** 74-79-3
- **Molecular Formula:** $C_6H_{14}N_4O_2$
- **Molecular Weight:** 174.20 g/mol
- **Recommended Use:** Pharmaceutical excipient, nutraceutical ingredient, dietary supplement, research chemical

2. Hazard Identification

- **Classification:** Not classified as hazardous under GHS
- **Physical Hazards:** None known
- **Health Hazards:** May cause mild irritation to eyes, skin, or respiratory tract if exposed in excess
- **Environmental Hazards:** Not expected to be harmful to the environment

GHS Label Elements:

- **Signal Word:** None
- **Hazard Statements:** Not applicable
- **Precautionary Statements:** Avoid dust formation and unnecessary exposure

3. Composition / Information on Ingredients

- **Chemical Name:** L-Arginine
- **Purity:** USP Grade
- **Content:** $\geq 98.5\%$
- **CAS No.:** 74-79-3
- **EC No.:** 200-811-1

4. First Aid Measures

- **Inhalation:** Move to fresh air. Seek medical attention if symptoms persist.
- **Skin Contact:** Wash thoroughly with soap and water.
- **Eye Contact:** Rinse cautiously with water for several minutes. Consult a physician if irritation continues.
- **Ingestion:** Rinse mouth with water. Do not induce vomiting. Get medical advice if discomfort occurs.

5. Fire Fighting Measures

- **Suitable Extinguishing Media:** Water spray, CO₂, dry chemical powder, foam
- **Hazardous Combustion Products:** Carbon oxides, nitrogen oxides
- **Protective Equipment:** Firefighters should wear self-contained breathing apparatus

6. Accidental Release Measures

- Avoid dust formation
- Sweep up and collect in suitable containers
- Ventilate affected area
- Dispose of according to local regulations

7. Handling and Storage

- **Handling:** Use with adequate ventilation. Avoid inhalation of dust.
- **Storage:** Store in a cool, dry, well-ventilated place. Keep container tightly closed.
- **Incompatibilities:** Strong oxidizing agents

8. Exposure Controls / Personal Protection

- **Engineering Controls:** Adequate ventilation
- **Personal Protective Equipment:**
 - Gloves: Recommended
 - Eye Protection: Safety goggles
 - Respiratory Protection: Dust mask if required
- **Hygiene Measures:** Wash hands after handling

9. Physical and Chemical Properties

- **Appearance:** White or almost white crystalline powder
- **Odor:** Odorless
- **pH (solution):** 10.5 – 12.0
- **Melting Point:** ~222°C (decomposes)
- **Solubility:** Soluble in water
- **Bulk Density:** Not determined

10. Stability and Reactivity

- **Stability:** Stable under recommended storage conditions
- **Conditions to Avoid:** Excessive heat, moisture
- **Incompatible Materials:** Strong oxidizers
- **Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides

11. Toxicological Information

- **Acute Toxicity:** Low toxicity
- **Skin Irritation:** May cause mild irritation

- **Eye Irritation:** Mild irritation possible
- **Carcinogenicity:** Not listed as carcinogenic by IARC, NTP, or OSHA

12. Ecological Information

- **Ecotoxicity:** Not expected to be harmful
- **Persistence & Degradability:** Biodegradable
- **Bioaccumulation:** No data available
- **Environmental Impact:** Minimal when used as directed

13. Disposal Considerations

- Dispose of product and packaging in accordance with local, regional, and national regulations
- Do not discharge into drains or waterways

14. Transport Information (Detailed)

L-Arginine USP Grade is **not regulated as a dangerous good** for transport.

- **UN Number:** Not assigned
- **UN Proper Shipping Name:** Not regulated
- **Transport Hazard Class:** Not applicable
- **Packing Group:** Not applicable

Transport Regulations:

- **ADR/RID (Road/Rail):** Not classified as hazardous
- **IMDG (Sea):** Not classified as dangerous goods
- **IATA (Air):** Not restricted

Special Transport Precautions:

- Protect from moisture and contamination
- Ensure containers are tightly sealed
- Handle carefully to prevent dust release

Bulk Transport:

- No special bulk transport requirements under MARPOL or IBC Code

15. Regulatory Information

- Complies with USP specifications
- Not listed as hazardous under OSHA, REACH, or GHS
- Suitable for pharmaceutical and food-grade applications subject to compliance

16. Other Information

- This MSDS is prepared based on current knowledge and regulatory guidelines
- Information is provided for safe handling, storage, and transportation
- User is responsible for compliance with applicable laws and regulations
- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.