

L-ARGININE

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: L - ARGININE
Product Code: 1104
CAS#: 74-79-3
Synonym: 2-Amino-5-guanidinovaleric acid; L-Arginine
Chemical Name: Arginine
Chemical Formula: C₆H₁₄N₄O₂
Formula Weight: 174.20

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Composition:
Name: L - ARGININE
Toxicological Data on Ingredients:
Classification according to Regulation (EC) No 1272/2008
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant)
Potential Chronic Health Effects: Not available.
Carcinogenic effects: Not available.
Mutagenic effects: Not available.
Teratogenic effects: Not available.
Developmental toxicity: Not available

SECTION 4: FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Warm water must be used. Get medical attention if irritation occurs.
Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
Serious Skin Contact: Not available
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation: Not available
Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion: Not available

SECTION 5: FIRE AND EXPLOSION DATA

Flammability of the Product: May be combustible at high temperature.
Auto-Ignition Temperature: Not Available.
Flash Points: Not Available.



Flammable Limits: Not Available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...)

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not Available.

Risks of explosion of the product in presence of static discharge: Not available

Fire Fighting Media and Instructions:

Small fire: Use DRY chemical powder

Large fire: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not Applicable.

Special Remarks on Explosion Hazards: Not Applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

SECTION 7: HANDLING AND STORAGE

Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible

Storage:

Light sensitive. Store in light resistant container. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses, Lab coat, Dust respirator, Gloves. Be sure to use an approved/certified respirator or equivalent.

Personal Protection in Case of a Large Spill:

Splash goggles, Full suit, Dust respirator, Boots, Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not Available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance	:	Solid crystalline powder
Odor	:	Odourless
Taste	:	Not available



Molecular Weight	:	Not available
Color	:	Not available
pH (10% soln/water)	:	Not available
Boiling Point	:	Not available
Melting Point	:	235 °C (455°F)
Critical Temperature	:	Not available
Specific Gravity	:	Not available
Vapor Pressure	:	Not applicable
Vapor Density	:	Not available
Volatility	:	Not available
Odor Threshold	:	Not available
Water/Oil Dist. Coeff.	:	Not available
Ionicity (in Water)	:	Not available
Dispersion Properties	:	Not available
Solubility	:	Not available

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is chemically stable under standard ambient conditions.

Instability Temperature: Not available.

Conditions of Instability: Excess heat and light.

Incompatibility with various substances: Strong oxidizing material.

Corrosivity: Non corrosive in presence of glass.

Special Remarks on Reactivity: Light Sensitive.

Special Remarks on Corrosivity: Not available

Polymerization: Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Eye Contact, ingestion, and Inhalation.

Toxicity to Animals:

LD₅₀: Not available

LC₅₀: Not available.

Chronic Effects on Humans: Mutagenic for mammalian somatic cells

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May affect genetic material. Some Laboratory experiments have resulted in mutagenic effects. Although some dietary studies in animals have demonstrated that Arginine deficiency can impair reproductive organ development as well as having adverse effects on gestation and lactation, we did not locate any literature on possible adverse reproductive effects of supplemental Arginine during human pregnancy.

Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not Available.

BOD and COD: Not Available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not Available.



SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable

Special Provisions for Transport: Not applicable

SECTION 15: OTHER REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: L-Arginine

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): R40- Possible risks of irreversible effects. S2- Keep out of the reach of children. S36/37- Wear suitable protective clothing and gloves.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment: Gloves, Lab coat, Safety glasses, and Dust respirator - be sure to use an approved/certified respirator or equivalent.

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements.

Not Applicable

Other Special Considerations: Not available

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