L-Arginine 74-79-3 MSDS

Name:	L-Arginine Material Safety Data Sheet
Synonym:	Arginine, L-; Arginine; L-(+)-Arginine; S-(+)-Arginin
CAS:	74-79-3

Section 1 - Chemical Product

MSDS Name: L-Arginine Material Safety Data Sheet

Synonym: Arginine, L-; Arginine; L-(+)-Arginine; S-(+)-Arginin

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
74-79-3	L-Arginine	>98.5	-

Hazard Symbols: None Listed.

Risk Phrases: None Listed.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

The toxicological properties of this material have not been fully investigated.Light sensitive.Moisture sensitive.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation. May cause erythema (redness) and edema (fluid buildup) with crusting and scaling.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

Inhalation:

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic:

Laboratory experiments have resulted in mutagenic effects.

Section 4 - FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

Extinguishing Media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Do NOT get water inside containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Do not get water inside containers.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and

clothing. Keep container tightly closed. Avoid ingestion and inhalation. Store protected from light. Do not allow contact with water. Keep from contact with moist air and steam.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Store protected from light.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 74-79-3: Russia: 10 mg/m3 TWA Personal Protective Equipment Eyes: 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:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Crystalline powder

Color: white

Odor: none reported

pH: 11.4

Vapor Pressure: Negligible.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 223-224 deg C (dec)

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature: 224 deg C

Solubility in water: Soluble.

Specific Gravity/Density: 1.3 (water=1)

Molecular Formula: C6H14N4O2

Molecular Weight: 174.1236

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions. Materials containing similar functional groups can decompose at elevated temperatures.

Conditions to Avoid:

High temperatures, incompatible materials, light, dust generation, moisture.

Incompatibilities with Other Materials:

Strong oxidizing agents, moisture.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 74-79-3: CF1934200 LD50/LC50:

Not available.

Carcinogenicity:

L-Arginine - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Section 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - TRANSPORT INFORMATION

IATA

Not regulated as a hazardous material.

IMO

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 74-79-3: 0

Canada

CAS# 74-79-3 is listed on Canada's DSL List.

CAS# 74-79-3 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 74-79-3 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

N/A