

## L-Arginine

**DOC0(106-109)**

### SECTION 1 Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Identification of the product : Raw material  
 Product code : DOC0(106-109)  
 Trade name : L-Arginine  
 EC-No : 200-811-1  
 CAS number : 000074-79-3  
 Formula : C<sub>6</sub>H<sub>14</sub>N<sub>4</sub>O<sub>2</sub>

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant identified uses : For research purposes only  
 1.2.2 Uses advised against No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Company identification : Formedium Ltd.  
 King's Lynn, England, PE31 6DJ  
 Tel: +44(0)1485 609069  
 Web: [www.Formedium.com](http://www.Formedium.com)  
 E-mail: [info@formedium.com](mailto:info@formedium.com)

#### 1.4. Emergency telephone number

Emergency telephone number : Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)  
 National Poison Information Centre :Europe UK : +44 0845 4647 (this service is only available to health professionals)  
 See [www.toxbase.org](http://www.toxbase.org) for a local poison centre

### SECTION 2 Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) 1272/2008

Serious eye damage / eye irritation (Category 2) H319  
 May cause respiratory irritation (Category 3) H335  
 For the full text of the H-Statements mentioned in this section, see Section 16.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008

Signal Word : Warning  
 Hazardous ingredients : L-Arginine  
 Hazard statement(s) : H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.  
 Precautionary statement(s) : P280 Wear protective gloves, protective clothing, eye protection, face protection.  
 P305 + P351 IF IN EYES : Rinse cautiously with water for several minutes.  
 P337 + P313 If eye irritation persists : Get medical advice / attention.



GHS07

**L-Arginine****DOC0(106-109)****SECTION 2 Hazards identification (continued)****2.3. Other hazards**

No additional information available.

**SECTION 3 Composition/information on ingredients****3.1 Substance / Preparation**

Name: Arginine (L-)  
CAS-No.: 000074-79-3  
EC-No.: 200-811-1

**Hazardous ingredients according to Regulation (EC) No. 1272/2008**

Component:	Concentration	CAS No	EC No	Classification
L-Arginine	>= 98.5%	74-79-3	200-811-1	Serious eye damage / eye irritation H319

For the full text of the H-Statements mentioned in this Section, see section 16.

**SECTION 4 First aid measures****4.1. Description of first aid measures**

<b>If inhaled</b>	Assure fresh air breathing.
<b>In case of skin contact</b>	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
<b>In case of eye contact</b>	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
<b>If swallowed</b>	Rinse mouth.

**4.2. Most important symptoms and effects, both acute and delayed**

No additional information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

No additional information available.

**SECTION 5 Fire-fighting measures****5.1. Extinguishing media****Suitable extinguishing media** Water spray, alcohol resistant foam, dry chemical powder or carbon dioxide (CO<sub>2</sub>).**5.2. Special hazards arising from the substance or mixture**Under fire conditions, hazardous fumes will be present. CO<sub>x</sub> NO<sub>x</sub>.**5.3. Advice for firefighters**

Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Prevent fire fighting water from entering the environment.

**L-Arginine****DOC0(106-109)****SECTION 6 Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****6.1.**

General measures

**For non-emergency personnel**

Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

**6.1.1.**

Measures in case of dust release.

**For non-emergency personnel**

Use good housekeeping practices to avoid rendering dust airborne.

**6.1.2****For emergency responders**

No additional information available.

**6.2 . Environmental precautions**

Prevent entry to sewers and public waters. Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Sweep up dry powder and dispose properly.

**6.4. Reference to other sections**

For disposal see section 13.

**SECTION 7 Handling and storage****7.1. Precautions for safe handling**

Ensure good ventilation of the work station. Handle in accordance with good industrial hygiene and safety procedures.

**7.2. Conditions for safe storage, including any incompatibilities**Store in a dry, well-ventilated area. Store at ambient temperature.  
Keep container tightly closed. Protect from direct sunlight.**7.3. Specific end use(s)**

For research purposes only

**SECTION 8 Exposure controls/personal protection****8.1. Control parameters**

No additional information available

**8.2. Exposure controls****Hand protection:**

Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile rubber (NBR)	6 (>480 minutes)	0.11	EN374

**Eye protection:**

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

**Skin and body protection:**

Wear suitable protective clothing. 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.

**L-Arginine****DOC0(106-109)****Section 8: Exposure controls / personal protection (continued)****Respiratory protection**

Dust production: Dust mask with filter type P1.

**SECTION 9 Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state	Solid
Appearance	Crystals. Powder.
Colour	White.
Molecular mass	174.2 g/mol
Odour	No data available
Odour Threshold	No data available
pH	No data available
pH solution	10.5 – 12 100 g/L
Melting point	216 – 222 °C
Freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Relative evaporation rate	No data available
Flammability (solid,gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Water solubility	150 g/L
Log Pow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	244 °C
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Explosive limits	No data available

**9.2. Other safety information**

No data available

**L-Arginine****DOC0(106-109)****SECTION 10 Stability and reactivity****10.1. Reactivity**

No additional information available.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No additional information available.

**10.4. Conditions to avoid**

Light (daylight). Moisture.

**10.5. Incompatible materials**

Strong oxidizers. Strong acids. Alkali.

**10.6. Hazardous decomposition products**

When heated to decomposition, emits dangerous fumes.— Carbon oxides (COx), Nitrogen oxides (NOx).

**SECTION 11 Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

LD50 oral – Rat – &gt;5110 mg/kg

**Skin corrosion / irritation**

Not classified

**Serious eye damage / eye irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation**

Not classified

**Germ cell mutagenicity**

Not classified

**Carcogenicity**

Not classified

**Reproductive toxicity**

Not classified

**Specific target organ toxicity****Single exposure** – Not classified**NOAEL (oral rat 90 days****Repeated exposure** – Not classified**Aspiration hazard**

3565.1 mg/kg bodyweight / day

Not classified

**11.2. Additional Information****Endocrine disrupting properties :**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**L-Arginine****DOC0(106-109)****SECTION 12 Ecological information****12.1. Toxicity**

LC50 fish 1 : 2.8 mg/l Brachydanio rerio (zebra fish).

**12.2. Persistence - degradability**

Biodegradation : 60%.

**12.3. Bioaccumulative potential**

No additional information available.

**12.4. Mobility in soil**

No additional information available.

**12.5. Results of PBT and vPvB assessment**

No additional information available.

**12.6. Other adverse effects**

Moderately toxic to aquatic life. Prevent entry to sewers and public waters. Avoid release to the environment.

**12.7. Endocrine disrupting properties**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**SECTION 13 Disposal considerations****13.1. Waste treatment methods**

Dispose of this material and its containers to hazardous or special waste collection point.

**SECTION 14 Transport information****14.1. UN Number**

Not applicable.

**General information**

: Not classified as dangerous in the meaning of transport regulations.

**14.2. UN Proper shipping name**

Not applicable.

**14.3. Transport Hazard Class(es)**

Not applicable.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards**

Not applicable.

**14.6. Special precautions for user**

Not applicable

**L-Arginine****DOC0(106-109)****SECTION 15 Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety data sheet complies with the requirements of Regulation (EC) No. 2015/830.

**15.2. Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

**SECTION 16 Other information****Full text of H- and EUH-statements referred to under sections 2 and 3.**

Eye irritation 2

Eye irritation. Category 2

H319

Causes eye irritation.

Respiratory tract irritation

Specific Target Organ Toxicity. STOT SE3

H335

May cause respiratory irritation.

**Further information**

: 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. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

**Revision**

: Complete SDS revision

**End of document**