



Material safety data sheet

According to EU Regulation 1907/2006 in the current version

ARGININE

1. Identification of the substance/mixture and company

Trade name: L-Arginine Ph.Eur.
I.N.C.I. Arginine
CAS No. : 74-79-3
EIC No. : 200-811-1
REACH pre-registration No. : 01-2119963927-19
Utilization: Raw material for cosmetic or professional use
Supplier company identification: **Elemental SRL**, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania
Tel/Fax: +40259-436.755, www.elemental.eu
Emergency: RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate Publică București.
International emergency number: +49 180 2273-112

2. Hazards Identification

2.1 Classification of the substance or mixture

This product is not classified as hazardous to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: -

2.2 Label elements

Signal word: -

Hazard pictograms: -

Hazard statement: -

Precautionary statements: -

This product is not subject to hazard labeling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

2.3 Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%

3. Declaration of ingredients

3.1. Substances

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions Regulation (EU) 1272/2008 (CLP) (and subsequent amendments and supplements) in such quantities as to require the statement.

4. First aid measures

4.1 Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.



Material safety data sheet

According to EU Regulation 1907/2006 in the current version

ARGININE

SKIN: Removed contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothes before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by doctor.

4.2 Most important symptoms and effects, both acute and delayed

Information not available.

4.3 Indication of any immediate medical attention and special treatment needed

Information not available.

5. Fire fighting measures

5.1 Means of extinction

Suitable extinguishing equipment:

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray

Unsuitable extinguishing equipment:

None particular

5.2 Special hazards arising from the substance or mixture

Hazards caused by exposure in the event of fire:

Do not breathe combustion products. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

5.3 Recommendations for fire-fighters

General information:

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

Special protective equipment for fire-fighters:

Normal fire fighting clothing i.e fire kit (BS EN 469), gloves (BN EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1 Personal precautions, protective devices and emergency procedures

If there are no contraindications, spray powder with water to prevent the formation of dust.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.



Material safety data sheet

According to EU Regulation 1907/2006 in the current version

ARGININE

6.2 Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3 Methods and materials for containment and remediation

Collect the leaked product and place it in containers for recovery or disposal. If there are not contraindications, use jets of water to eliminate product residues.

Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4 Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2 Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3 Specific end uses

Information not available.

8. Exposure controls / personal protection

8.1 Control parameters

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3mg/m³; PNOC inhalable fraction: 10mg/m³). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

8.2 Exposure controls

Comply with the safety measures usually applied when handling chemical substances.

Hand protection: Gloves Nitrile

Skin protection: None specific required.

Eye protection: goggles

Respiratory protection

Use a type P filtering facemask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149)

Environmental exposure controls



Material safety data sheet

According to EU Regulation 1907/2006 in the current version

ARGININE

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9. Physical and chemical properties

9.1 Information on physical and chemical properties

Appearance: powder

Color: white

Odor: odourless

pH-value: 10,5-12,0 (solution of 10 % in water)

Melting point: 224°C

Decomposition temperature: 244°C

Auto-ignition temperature: not available

Boiling point: not applicable

Flash point: not applicable

Lower explosion limits: not available

Upper explosion limits: not available

Lower inflammability limit: not available

Upper inflammability limit: not available

Vapor pressure: not available

Solubility: moderately soluble in water

Partition coefficient: no data available

Vapor density: no data available

Relative density: 1,46 g/cc

Viscosity: not available

Explosive properties: not available

Oxidising properties: not available

9.2 Other information

Molecular weight: 174,2

10. Stability and reactivity

10.1 Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2 Chemical stability

The product is stable in normal conditions of use and storage

10.3 Possibility of dangerous reactions

The powders are potentially explosive when mixed with air.

10.4 Conditions to avoid

Avoid environmental dust build-up

10.5 Incompatible materials



Material safety data sheet
According to EU Regulation 1907/2006 in the current version
ARGININE

Information not available.

10.6 Hazardous decomposition products

Information not available.

11. Toxicological information

11.1 Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information:
Information not available.

Information on likely routes of exposure:
Information not available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:
Information not available

Interactive effects:
Information not available

ACUTE TOXICITY:

Does not meet the classification criteria for this hazard class.

SKIN CORROSION/IRRITATION:

Does not meet the classification criteria for this hazard class.

SERIOUS EYE DAMAGE/IRRITATION:

Does not meet the classification criteria for this hazard class.

RESPIRATORY OR SKIN SENSITIZATION:

Does not meet the classification criteria for this hazard class.

GERM CELLS MUTAGENICITY:

Does not meet the classification criteria for this hazard class.

CARCINOGENICITY:

Does not meet the classification criteria for this hazard class.

REPRODUCTIVE TOXICITY:

Does not meet the classification criteria for this hazard class.

STOT – SINGLE EXPOSURE:

Does not meet the classification criteria for this hazard class.

STOT – REPEATED EXPOSURE:

Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD:

Does not meet the classification criteria for this hazard class.

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1 Toxicity

Information not available

12.2 Persistence and degradability: Information not available



Material safety data sheet

According to EU Regulation 1907/2006 in the current version

ARGININE

12.3 Bioaccumulation potential

Information not available

12.4 Ground mobility

Information not available

12.5 Results of PBT and vPvB assessment

On the basis of available data the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6 Other adverse effects

Information not available.

13. Disposal considerations

13.1 Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Solid residues may be suitable for disposal in an authorised landfill site.

CONTAMINATED PACKAGING

Contaminate packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the international Maritime Dangerous Goods Code (IMDG), and of the International Air Transport association (IATA)

14.1 UN number

Not applicable

14.2 UN shipping name

Not applicable

14.3 Class of danger for transport

Not applicable

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable

14.6 Special precautions for users

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Information not relevant



Material safety data sheet
According to EU Regulation 1907/2006 in the current version
ARGININE

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixtures

Seveso Category – Directive 2012/18/EC:

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
None

Substances in Candidate List (Art.59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances Subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available.

15.2 Chemical safety assessment.

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

16. Additional information

16.1 Abbreviations:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CE NUMBER: Identifier in ESIS (European Archive of existing substances)

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EmS: Emergency Schedule

EINECS: European Inventory of Existing Commercial Chemical Substances.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: Immobilization Concentration 50%

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IMO: International Maritime Organization

INDEX NUMBER: Identifier in Annex VI of CLP

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

OEL: Occupation Exposure Level

PBT: Persistent Bioaccumulative and toxic as Reach Regulation



Material safety data sheet

According to EU Regulation 1907/2006 in the current version

ARGININE

PEC: Predicted environmental Concentration

PEL: Predicted exposure level

PNEC: Predicted No Effect Concentration.

REACH: EC Regulation 1907/2006

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

TLV: Threshold Limit Value

TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure

TWA STEL: Short-term exposure limit

TWA: Time-weighted average exposure limit

VOC: Volatile organic Compounds

vPvB: very persistent and very Bioaccumulative as for REACH Regulations

WGK: Water hazard calasses (German).

Disclaimer:

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.