



PT. CHEIL JEDANG INDONESIA

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Date Issued : Dec 16, 2014
Revised : 04

**MATERIAL SAFETY DATA SHEET
L-ARGININE**

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product : L-Arginine
Synonym : 2-Amino-5-guanidinovaleric acid

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

Identified uses : Nutrient

1.3 Details of the supplier of the safety data sheet

Manufacturer : PT. Cheil Jedang Indonesia
Jl. Raya Brantas Km 3,5 Jatigedong – Ploso
Jombang 61453 - Jawa Timur - Indonesia

1.4 Emergency telephone number

Emergency Phone : +62-321-887700

2. Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) no. 1272/2008
Eye irritation, Category 2, H319

Classification according to Directive 67/548/EEC or 1999/45/EC
Xi, R36

2.2 Label elements

Labeling according to Regulation (EC) no. 1272/2008
Hazard pictograms



Signal word : Warning
Hazard statement : H319 Causes serious eye irritation.
Precautionary statements : P280, wear eye protection / face protection
P305 + P351 + P338 If in eye: Rinse cautiously with water for several minutes, remove contact lenses (if present and easy to do) and continue rinsing.

Labeling according to Directive 67/548/EEC or 1999/45/EC

Symbol(s) : Xi Irritant
R-phrases(s) : 36 Irritating to eyes
S-phrases(s) : 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

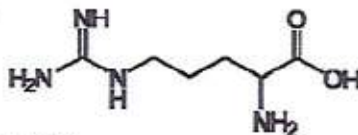
2.3 Other hazards

No Information available



3. Composition / information on ingredients

<i>Composition</i>	: L-Arginine
<i>Chemical Family</i>	: Amino Acid (Essential)
<i>Formula</i>	: $C_6H_{14}N_4O_2$
<i>Molecular Weight</i>	: 174.20 g/mol
<i>% by weight</i>	: > 98.5%
<i>Structure Formula</i>	:



<i>CAS No.</i>	: 74-79-3
<i>EINECS No.</i>	: 200-811-1

4. First aid measures

4.1 Description of first aid measures

<i>General recommendation</i>	: Avoid contact
<i>After inhalation</i>	: Remove individual to fresh air
<i>After skin contact</i>	: Wash area thoroughly with soap and plenty of water. Get medical attention if irritant develops.
<i>After eye contact</i>	: Flush eyes with plenty water for at least 15 minutes If irritant occurs consult physician or immediately call in ophthalmologist
<i>After swallowing</i>	: Wash out mouth with water, immediately make victim drink water (two glasses at most), If symptoms persist consult medical personnel

4.2 Most Important symptom and effect, both acute and delayed

Irritation and corrosion

4.3 Indication of immediate medical attention and special treatment needed

No information available

5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, carbon dioxide (CO₂), chemical foam, dry chemical, alcohol-resistant foam

Unsuitable extinguishing media

No information available

5.2 Special hazards arising from the substance or mixture

Combustible material and development of hazardous combustion gases or vapors possible in the event of fire

5.3 Advice for firefighters

Special Fire Fighting Procedure: Should wear protective clothing and respiratory protection

Further information : knock down gases/vapors/mists with a water spray jet

6. Accidental release measures

6.1 Personal precautions, proactive equipment and emergency procedures

Avoid dust formation and inhalation of dust, avoid substance contact, and ensure adequate ventilation

6.2 Environmental precautions

Do not let product enter drains

6.3 Methods and materials for contaminant and cleaning up

Sweep up and shovel, keep in suitable and closed containers for disposal, do not let this chemical enter the environment and avoid generation of dusts

6.4 Reference to other sections

See section 13



7. Handling & storage

7.1 Precaution for safe handling

Avoid contact with skin and eyes, do not breath dust, vapors or spray mist, do not ingest. Use with appropriate ventilation, chemicals resistant gloves, and eye protection.

7.2 Condition for safe storage, including any incompatibilities

Recommended to be stored in clean, cool, dry condition, and well-ventilated area to avoid dust generation. Do not store above 24°C (75.2°F)

7.3 Specific end uses(s)

As mentioned in section 1.2

8. Exposure control and personal protection

8.1 Control parameters

This product does not contain any substance with occupational exposure limit value.

8.2 Exposure controls

8.2.1 *Engineering measures* : Provide adequate mechanical ventilation to avoid dust generation, especially in confined areas and appropriate working operations should be given priority over the use of personal protective equipment.

8.2.2 *Individual protection measure*

8.2.2.1 *Hygiene measure* : Change contaminated clothing, preventive skin protection recommended, wash hands after working with substance

8.2.2.2 *Eye/face protection* : Wear appropriate eye protection to avoid potential direct eye contact (safety glasses)

8.2.2.3 *Hand protection* : Wear appropriate protective gloves

8.2.2.4 *Skin & body protection* : Wear appropriate protective gloves and clothing to protect against skin exposure

8.2.2.5 *Respiratory protection* : Required when dusts are generated, recommended to follow the OSHA respiratory regulation found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritant or other symptoms are experienced.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance and Odor : White crystalline powder and odorless

Molecular weight : 174.20 g/mol

pH : 10.5~12.0 at 25°C (77°F), 10% Solution

Boiling point : 409.1°C at 760 mmHg

Melting point : 235°C (455°F)

Flash point : 201.2°C (394.2 °F)

MIE(Minimum Ignition Energy) : 100~300mJ

P max : 7.1 barg

K st : 98 bar.m/sec

Explosion class : St1

Solubility in Water at 20°C : Very soluble in water (148g/L), sparingly soluble in alcohol

Evaporation Rate : 7.7E-08mmHg at 25°C

10. Stability and reactivity

10.1 Reactivity

Reacts with strong oxidizers

10.2 Chemical stability

Stable under recommended storage condition



- 10.3 Possibility of hazardous reactions
Strong oxidizers
- 10.4 Conditions to avoid
Exposure to light, exposure to moist air or water and strong heating (decomposition)
- 10.5 Incompatible materials
Strong oxidizers
- 10.6 Hazardous decomposition products
Carbon monoxide, carbon dioxide, nitrogen oxide and in the event of fire as mentioned in section 5

11. Toxicological Information

11.1 Information on toxicological effect

Acute toxicity

Product Information : No acute toxicity information is available for this product

Chronic exposure

Carcinogenicity : There are no known carcinogenic chemicals in this product

Irradiation & corrosion : Not Available

Mutagenic effect : Not Available

Sensitization : Not Available

Sign and symptoms of exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

11.2 Further information

This is a semi-essential amino acid which is frequently found in natural protein

12. Ecology

12.1 Toxicity

Not toxic for wild animals and plants

12.2 Persistence and degradability

High bio degradable

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Result of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effect

We do not have quantitative data concerning the ecological effects of this product

13. Disposal considerations

13.1 Waste water method

Recover if possible. In so doing, comply with the local and national regulations currently in force. Leave chemicals in original containers. No mixing with other waste. Empty container should be taken to local recycle for disposal.

14. Transports information

Proper delivering name : CJ Arginine

Proper delivering condition : Stored in closed and sealed container

Means of transportation : Sea : By ship

Air : By airplane

Packaging : 25 kg double P.E. tube bags with silica-gel in fiber drum

No classified as dangerous in the meaning of transport regulations.



15. Regulatory information

15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture

TSCA	: CAS #74-79-3 is listed on inventory.
SARA	: Section 302(RQ)-No-RQ listed. Section 302(TPQ)-No-TPQ listed. Section 313-Not Reportable.
CERCLA	: Not listed.
Clean Water Act	: Not listed as hazardous under clean water act.
Clean Air Act	: Not listed as a hazardous air pollutant
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

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

16. Other information

Full text of H-statement referred to under section 2 and 3

H319 : Causes serious eye irritation

Full text of R-statement referred to under section 2 and 3

R36 : Irritating to eyes

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Authorized by



Fabiyan Bani Adam
Quality Control Manager

