

Kyowa Hakko Bio Singapore Pte Ltd

(Company Registration No.: 201002185G)

47 Scotts Road

Goldbell Towers #12-05

Singapore 228233

Tel : (65) 6732 7889

Fax : (65) 6732 7989



TO: ALL CARRIERS CONCERNED

AIRWAYBILL NO.: 618-50427134

HOUSE AIRWAYBILL.: WG00522084

DESTINATION : BOMBAY

PROPER SHIPPING NAME: L-ARGININE

CONFIRMED FLIGHT NO.: SQ422

CERTIFICATION FOR NON-DAINGEROUS GOODS (NON-HAZARDOUS)

I, hereby certify that the above-mentioned caption goods are non-hazardous for Air, Land or Sea transportation in any nature. The consignment is fully described By proper shipping name, packed marked and in proper condition for carriage By Air, Land or Sea.

I, further hereby certify that the consignment is not classified as Dangerous Goods Under the current edition of IATA Dangerous Goods Regulations and all-applicable Carriers and governmental regulations.

I also acknowledge that I may liable for damages resulting from any misstatement or Omission and I further agree that any air carriers involved in the carriage of this Consignment may rely upon this Certification.

Name & Title Of Person Signing This Certification

RAYMOND GOH (DIRECTOR)

Company Name & Address

KYOWA HAKKO BIO SINGAPORE PTE LTD

47 SCOTTS ROAD

#12-05 GOLDBELL TOWERS

SINGAPORE 228233

Signature Of Shipper

Kyowa Hakko Bio Singapore Pte Ltd

47 Scotts Road

Goldbell Towers #12-05

Singapore 228233

Tel: (65) 6732 7889

Fax: (65) 6732 7989

Date :

At Place : SINGAPORE

SAFETY DATA SHEET ACCORDING TO 2001/58/EC

ISSUED DATE: April 1, 2015

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- 1.1. Identification of the substance or preparation : L-Arginine
- 1.2. Use of the substance/preparation
: pharmaceutical bulk, food additive, intermediate for synthesis, etc.
- 1.3. Company/undertaking identification
Company : KYOWA HAKKO BIO CO., LTD.
Department for information : Dept. of Safety, Environment and Quality Assurance
Address : 1-6-1, Ohtemachi, Chiyoda-ku, Tokyo, JAPAN
TEL-No. : 81-3-3282-0979 FAX-No. : 81-3-3284-1839
- 1.4. Emergency contact : KYOWA HAKKO BIO CO., LTD.
TEL-No. : 81-3-3282-0979 FAX-No. : 81-3-3284-1839

2. COMPOSITION/INFORMATION ON INGREDIENTS

- 2.1 The product is highly purified substance.
L-ARGININE ($C_6H_{14}N_4O_2 = 174.20$)
- 2.2 The product is not and does not include dangerous substances classified according to Directive 1999/45/EC.
CAS-Number of the product : 74-79-3

3. HAZARD IDENTIFICATION

The product is not dangerous and hazards to man and the environment according to classification rules in Directives 67/548/EEC or 1999/45/EC. Skin or eye irritant is not expected.

4. FIRST AID MEASURES

General Instructions : Avoid direct contact with the product.

Eye contact : Wash thoroughly with water. If irritation occurs, consult a physician.

Skin contact : Wash thoroughly with water. If irritation occurs, consult a physician.

Ingestion : Rinse out with water. If any symptoms appear, consult a physician.

Inhalation : If irritation occurs, consult a physician.

Notes to the physician : There is no special information available. Treat symptomatically.

Information given above is to the best of our knowledge and is only related to the product as delivered in order to give a complete review of safety aspects accurate as of the date indicated. All data given are never meant to guarantee product properties.

5. FIRE FIGHTING MEASURES

- Suitable extinguishing media : water
- Extinguishing media which must not be used for safety reasons : none
- Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases : This product is decomposed to CO₂ and H₂O by burning.
- Special protective equipment required for fire-fighting
: In case of fire, wear a self-containing breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Wear protective equipment (see chapter 8.2).

The product is solid at room temperature. Use solid waste clean-up procedures.

7. STORAGE AND HANDLING

- 7.1. Handling : Wear protective equipment (see chapter 8.2).
- 7.2. Storage : Controlled room temperature in tight container.
- 7.3. Specific use : not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure limit values : Exposure limit value for health hazard is not determined.

8.2. Exposure controls

8.2.1. Occupational exposure control

Follow the general guidelines of good industrial hygiene. Do not breathe product dusts. Change contaminated clothing and thoroughly clean before re-use.

- Respiratory : Mask is recommended to use.
- Hand protection : Gloves is recommended to use.
- Eye protection : Goggles is recommended to use.
- Skin protection : Head cover, coverall or laboratory coat buttoned to neck, long sleeves is recommended to use.

8.2.2. Environmental exposure control

- Facility design : It is recommended to install an efficient exhaustion system.
- Components with exposure limits
: The product does not contain any components with exposure limits.

BRANDNAME : L-ARGININE

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9. PHYSICAL AND CHEMICAL PROPERTIES	
9.1 General information	Appearance : solid (at 20°C), white Odor : almost odorless
9.2. Important health, safety and environmental information	<ul style="list-style-type: none">- pH : 10.5 - 12.0 at 10 g per 100 ml of water- Boiling point : Not applicable- Flash point : Not applicable- Flammability : See Section 16.- Explosive properties : No- Oxidising properties : No- Vapor pressure : Not applicable- Relative density : No data- Solubility : Freely soluble in water, very slightly soluble in alcohol- Partition coefficient (n-octanol/water) : no data- Viscosity : not applicable- Vapor density : not applicable- Evaporation rate : not applicable
9.3. Other information	<ul style="list-style-type: none">- Melting point : 244°C (decomposition)
10. STABILITY AND REACTIVITY	
This product is stable under controlled room temperature in tight container.	
<ul style="list-style-type: none">- Conditions to avoid : High temperature, high humidity or light- Materials to avoid : oxidizers- Hazardous decomposition products : None	
11. TOXICOLOGICAL INFORMATION	
LD 50 : > 16 g/kg rat (oral), Skin or eye irritant is not expected.	
12. ECOLOGICAL INFORMATION	
L-Arginine is one of common substances (amino acids) composing animal or plant body and is degraded by oxidation and hydrolysis. No serious influence to environment is expected.	
13. DISPOSAL CONSIDERATIONS	
Waste disposal method : With chemical wastes.	
14. TRANSPORT INFORMATION	
The product is not covered by transport regulations.	
15. REGULATORY INFORMATION	
The product is not dangerous nor hazardous.	
16. OTHER INFORMATION	
As with most organic solids, dust from this material may pose an explosion of fire hazard, if suspended in air and there is a source of ignition.	