

ALFAAA13954

## L-5-Hydroxytryptophan hydrate

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**产品说明:**  
**Product Description:** L-5-羟基色氨酸水合物  
L-5-Hydroxytryptophan hydrate

**Cat No. :** A13954  
**Molecular Formula** C11H12N2O3.xH2O

**Supplier** Alfa Aesar  
Avocado Research Chemicals, Ltd.  
Shore Road  
Port of Heysham Industrial Park  
Heysham, Lancashire LA3 2XY  
United Kingdom  
Office Tel: +44 (0) 1524 850506  
Office Fax: +44 (0) 1524 850608

**Emergency Telephone Number** Call Carechem 24 at  
+44 (0) 1865 407333 (English only);  
+44 (0) 1235 239670 (Multi-language)

**E-mail address** uktech@alfa.com  
www.alfa.com  
Product Safety Department

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

### SECTION 2. HAZARD IDENTIFICATION

**Physical State**  
Powder Solid

**Appearance**  
White to cream

**Odor**  
No information available

**Emergency Overview**  
Toxic if swallowed.

#### Classification of the substance or mixture

Acute Oral Toxicity

Category 3

#### Label Elements



**Signal Word**

**Danger**

**Hazard Statements**

## L-5-Hydroxytryptophan hydrate

H301 - Toxic if swallowed

**Precautionary Statements****Prevention**

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

**Response**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P330 - Rinse mouth

**Storage**

P405 - Store locked up

**Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**Physical and Chemical Hazards**

None identified.

**Health Hazards**

Toxic if swallowed.

**Environmental hazards**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component                     | CAS No    | Weight % |
|-------------------------------|-----------|----------|
| L-5-Hydroxytryptophan hydrate | N/A       | <=100    |
| L-Tryptophan, 5-hydroxy-      | 4350-09-8 | 0        |

**SECTION 4. FIRST AID MEASURES****Eye Contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Inhalation**

Remove to fresh air.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects**

No information available.

**Self-Protection of the First Aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**Notes to Physician**

Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which must not be used for safety reasons**

## L-5-Hydroxytryptophan hydrate

No information available.

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Ensure adequate ventilation.

**Environmental Precautions**

See Section 12 for additional Ecological Information.

Refer to protective measures listed in Sections 8 and 13.

**SECTION 7. HANDLING AND STORAGE****Handling**

Ensure adequate ventilation.

**Storage**

Keep refrigerated.

**Specific Use(s)**

Use in laboratories

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters****Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

**Exposure Controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

**Personal protective equipment**

**Eye Protection** Wear safety glasses with side shields (or goggles) (European standard - EN 166)

**Hand Protection** Protective gloves

| Glove material | Breakthrough time                 | Glove thickness | EU standard | Glove comments        |
|----------------|-----------------------------------|-----------------|-------------|-----------------------|
| Nitrile rubber | See manufacturers recommendations |                 | EN 374      | (minimum requirement) |
| Neoprene       |                                   |                 |             |                       |

## L-5-Hydroxytryptophan hydrate

|                       |   |
|-----------------------|---|
| Natural rubber<br>PVC | - |
|-----------------------|---|

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.  
(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection**

Long sleeved clothing

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use**

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Recommended Filter type:** Particulates filter conforming to EN 143

**Small scale/Laboratory use**

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Particle filtering: EN149:2001

When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls**

No information available.

|  |
|--|
| <b>SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES</b> |
|--|

**Appearance**

White to cream

**Physical State**

Powder Solid

**Odor**

No information available

**Odor Threshold**

No data available

**pH**

Not applicable

**Melting Point/Range**

258 °C / 496.4 °F

**Softening Point**

No data available

**Boiling Point/Range**

No information available

**Flash Point**

No information available

**Method -** No information available

**Evaporation Rate**

Not applicable

Solid

**Flammability (solid,gas)**

No information available

**Explosion Limits**

No data available

**Vapor Pressure**

No data available

**Vapor Density**

Not applicable

Solid

**Specific Gravity / Density**

No data available

**Bulk Density**

No data available

**Water Solubility**

No information available

**Solubility in other solvents**

No information available

**Partition Coefficient (n-octanol/water)****Autoignition Temperature**

No data available

**Decomposition Temperature**

No data available

**Viscosity**

Not applicable

Solid

**Explosive Properties**

No information available

**Oxidizing Properties**

No information available

**Molecular Formula**

C11H12N2O3.xH2O

**Molecular Weight**

220.23 (anhy)

## L-5-Hydroxytryptophan hydrate

## SECTION 10. STABILITY AND REACTIVITY

**Stability** Stable under normal conditions.

**Hazardous Reactions** No information available.

**Hazardous Polymerization** No information available.

**Conditions to Avoid** None known.

**Materials to avoid** .

**Hazardous Decomposition Products** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>).

## SECTION 11. TOXICOLOGICAL INFORMATION

## Product Information

## (a) acute toxicity;

| Component                | LD50 Oral       | LD50 Dermal | LC50 Inhalation |
|--------------------------|-----------------|-------------|-----------------|
| L-Tryptophan, 5-hydroxy- | 243 mg/kg (Rat) |             |                 |

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

## (d) respiratory or skin sensitization;

Respiratory No data available

Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.

(j) aspiration hazard; Not applicable  
Solid

**Symptoms / effects, both acute and delayed** No information available

## SECTION 12. ECOLOGICAL INFORMATION

**L-5-Hydroxytryptophan hydrate**

|  |   |
|--|---|
| <b>Ecotoxicity effects</b>             | Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants. |
| <b>Persistence and Degradability</b>   | No information available  |
| <b>Bioaccumulative Potential</b>       | No information available  |
| <b>Mobility in soil</b>                | No information available  |
| <b>Endocrine Disruptor Information</b> | This product does not contain any known or suspected endocrine disruptors   |
| <b>Persistent Organic Pollutant</b>    | This product does not contain any known or suspected substance  |
| <b>Ozone Depletion Potential</b>       | This product does not contain any known or suspected substance  |

**SECTION 13. DISPOSAL CONSIDERATIONS**

|  |  |
|--|--|
| <b>Waste from Residues/Unused Products</b> | Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. |
| <b>Contaminated Packaging</b>              | Dispose of this container to hazardous or special waste collection point.  |
| <b>Other Information</b>                   | Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.  |

**SECTION 14. TRANSPORT INFORMATION****Road and Rail Transport**

|                                |                               |
|--------------------------------|-------------------------------|
| <b>UN-No</b>                   | UN2811                        |
| <b>Proper Shipping Name</b>    | TOXIC SOLID, ORGANIC, N.O.S.  |
| <b>Technical Shipping Name</b> | L-5-Hydroxytryptophan hydrate |
| <b>Hazard Class</b>            | 6.1                           |
| <b>Packing Group</b>           | III                           |

**IMDG/IMO**

|                                |                               |
|--------------------------------|-------------------------------|
| <b>UN-No</b>                   | UN2811                        |
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**IATA**

|                                |                               |
|--------------------------------|-------------------------------|
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| <b>Technical Shipping Name</b> | L-5-Hydroxytryptophan hydrate |
| <b>Hazard Class</b>            | 6.1                           |
| <b>Packing Group</b>           | III                           |

|                                     |                                 |
|-------------------------------------|---------------------------------|
| <b>Special Precautions for User</b> | No special precautions required |
|-------------------------------------|---------------------------------|

**SECTION 15. REGULATORY INFORMATION**

## L-5-Hydroxytryptophan hydrate

**International Inventories**

X = listed, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS).

| Component                | The Inventory of Hazardous Chemicals (2015 Edition) | List of dangerous goods GB 12268 - 2012 | TCSI | IECSC | EINECS    | TSCA | DSL | PICCS | ENCS | ISHL | AICS | KECL     |
|--------------------------|---|---|------|-------|-----------|------|-----|-------|------|------|------|----------|
| L-Tryptophan, 5-hydroxy- | -   | -                                       | X    | -     | 224-411-1 | X    | -   | X     | X    | X    | -    | KE-20926 |

**National Regulations****SECTION 16. OTHER INFORMATION**

**Prepared By** Health, Safety and Environmental Department  
**Revision Date** 26-Jan-2021  
**Revision Summary** Not applicable.

**Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

**Legend**

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** (volatile organic compound)

**Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

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**Disclaimer**

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**End of Safety Data Sheet**