

ALFAAA15330

# Indole-3-carboxaldehyde

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

| 产品说明:                      | 吲哚-3-甲醛   |
|----------------------------|---|
| Product Description:       | Indole-3-carboxaldehyde   |
| Cat No. :                  | A15330  |
| Synonyms                   | None  |
| CAS No                     | 487-89-8  |
| Molecular Formula          | C9 H7 N O   |
| Supplier                   | Avocado Research Chemicals Ltd.<br>(Part of Thermo Fisher Scientific)<br>Shore Road, Heysham<br>Lancashire, LA3 2XY,<br>United Kingdom<br>Office Tel: +44 (0) 1524 850506<br>Office Fax: +44 (0) 1524 850608  |
| Emergency Telephone Number | For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11<br>Emergency Number <b>US:</b> 001-201-796-7100 / <b>Europe:</b> +32 14 57 52 99<br><b>CHEMTREC</b> Tel. No. <b>US:</b> 001-800-424-9300 / <b>Europe:</b> 001-703-527-3887 |
| E-mail address             | begel.sdsdesk@thermofisher.com  |
| Recommended Use            | Laboratory chemicals.   |
| Uses advised against       | No Information available  |

## **SECTION 2. HAZARD IDENTIFICATION**

| Physical State | Appearance                           | <b>Odor</b> |
|----------------|--------------------------------------|-------------|
| Powder Solid   | Beige                                | Slight      |
|                | Emergency Overview<br>Air sensitive. |             |

<u>Classification of the substance or mixture</u> Based on available data, the classification criteria are not met

#### Label Elements

None required

## Physical and Chemical Hazards

None identified.

**Health Hazards** 

The product contains no substances which at their given concentration are considered to be hazardous to health.

## **Environmental hazards**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil.

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This product does not contain any known or suspected endocrine disruptors.

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

| Component                  | CAS No   | Weight % |
|----------------------------|----------|----------|
| 1H-Indole-3-carboxaldehyde | 487-89-8 | 97       |

### **SECTION 4. FIRST AID MEASURES**

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### Skin Contact

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

#### Inhalation

Remove from exposure, lie down. Remove to fresh air. Get medical attention.

#### Ingestion

Clean mouth with water. Get medical attention.

#### Most important symptoms and effects

No information available.

#### Self-Protection of the First Aider

No special precautions required.

### Notes to Physician

Treat symptomatically.

## **SECTION 5. FIRE-FIGHTING MEASURES**

### Suitable Extinguishing Media

Water spray. Carbon dioxide (CO 2). Dry chemical. Chemical foam.

#### Extinguishing media which must not be used for safety reasons 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.

#### Methods for Containment and Clean Up

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Avoid dust formation. Sweep up and shovel into suitable containers for disposal. Do not let this chemical enter the environment.

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7. HANDLING AND STORAGE

#### Handling

Avoid contact with skin and eyes. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance.

#### Storage

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep under nitrogen.

#### 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

None under normal use conditions. .

#### Personal protective equipment

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

Hand Protection Protective gloves

| Glove material<br>Nitrile rubber<br>Neoprene<br>Natural rubber | Breakthrough time<br>See manufacturers<br>recommendations | Glove thickness<br>- | EU standard<br>EN 374 | Glove comments<br>(minimum requirement) |
|--|---|----------------------|-----------------------|---|
| 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   | Wear appropriate protective gloves and clothing to prevent skin exposure  |
|----------------------------|---|
| Respiratory Protection     | No protective equipment is needed under normal use conditions.  |
| 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 <b>Recommended Filter type:</b> Particle filter |
| Small scale/Laboratory use | Maintain adequate ventilation   |

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## **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

| Appearance<br>Physical State         | Beige<br>Powder Solid           |  |
|--------------------------------------|---------------------------------|--|
| -                                    |                                 |  |
| Odor                                 | Slight                          |  |
| Odor Threshold                       | No data available               |  |
| рН                                   | No information available        |  |
| Melting Point/Range                  | 193 - 199 °C / 379.4 - 390.2 °F |  |
| Softening Point                      | No data available               |  |
| Boiling Point/Range                  | No information available        | •••••••••••••••••••••••••••••••••••••• |
| Flash Point                          | 240 °C / 464 °F                 | Method - No information available      |
| Evaporation Rate                     | Not applicable                  | Solid                                  |
| Flammability (solid,gas)             | No information available        |  |
| Explosion Limits                     | No data available               |  |
| Vapor Pressure                       | No information available        |  |
| Vapor Density                        | Not applicable                  | Solid                                  |
| Specific Gravity / Density           | No data available               |  |
| Bulk Density                         | No data available               |  |
| Water Solubility                     | Insoluble                       |  |
| Solubility in other solvents         | No information available        |  |
| Partition Coefficient (n-octanol/wat | er)                             |  |
| Autoignition Temperature             | 550 °C / 1022 °F                |  |
| Decomposition Temperature            | No data available               |  |
| Viscosity                            | Not applicable                  | Solid                                  |
| Explosive Properties                 | No information available        |  |
| Oxidizing Properties                 | No information available        |  |
| Molecular Formula                    | C9 H7 N O                       |  |
| Molecular Weight                     | 145.16                          |  |

## **SECTION 10. STABILITY AND REACTIVITY**

| Stability                                       | Stable under normal conditions. Air sensitive.                        |
|---|---|
| Hazardous Reactions<br>Hazardous Polymerization | No information available.<br>Hazardous polymerization does not occur. |
| Conditions to Avoid                             | Exposure to air. Incompatible products.                               |
| Materials to avoid                              | Strong oxidizing agents. Strong reducing agents.                      |

Hazardous Decomposition Products Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

No acute toxicity information is available for this product

(a) acute toxicity;

(b) skin corrosion/irritation; No data available

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| (c) serious eye damage/irritation;  | No data available  |
|---|--|
| (d) respiratory or skin sensitization;<br>Respiratory<br>Skin   | No data available<br>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   | No information available.  |
| (j) aspiration hazard;  | Not applicable<br>Solid  |
| Other Adverse Effects   | The toxicological properties have not been fully investigated.   |
| Symptoms / effects,both acute and<br>delayed  | No information available   |
|   |  |
|   | SECTION 12. ECOLOGICAL INFORMATION   |
| Ecotoxicity effects   | SECTION 12. ECOLOGICAL INFORMATION Do not empty into drains.   |
|   |  |
| Ecotoxicity effects Persistence and Degradability   | Do not empty into drains.  |
| Ecotoxicity effects Persistence and Degradability Persistence   | Do not empty into drains.<br>Insoluble in water.   |
| Ecotoxicity effects Persistence and Degradability Persistence Bioaccumulative Potential   | Do not empty into drains.<br>Insoluble in water.<br>May have some potential to bioaccumulate<br>Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water<br>solubility<br>This product does not contain any known or suspected endocrine disruptors<br>This product does not contain any known or suspected substance<br>This product does not contain any known or suspected substance<br>This product does not contain any known or suspected substance |
| Ecotoxicity effects Persistence and Degradability Persistence Bioaccumulative Potential Mobility in soil Endocrine Disruptor Information Persistent Organic Pollutant | Do not empty into drains.<br>Insoluble in water.<br>May have some potential to bioaccumulate<br>Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water<br>solubility<br>This product does not contain any known or suspected endocrine disruptors<br>This product does not contain any known or suspected substance   |

## Indole-3-carboxaldehyde

| Contaminated Packaging       | Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers. |
|------------------------------|--|
| Other Information            | Waste codes should be assigned by the user based on the application for which the product was used.        |
|                              | SECTION 14. TRANSPORT INFORMATION  |
| Road and Rail Transport      | Not Regulated  |
| IMDG/IMO_                    | Not regulated  |
| ΙΑΤΑ                         | Not regulated  |
| Special Precautions for User | No special precautions required  |

## **SECTION 15. REGULATORY INFORMATION**

#### **International Inventories**

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

| Component                      | The   | List of  | TCSI | IECSC | EINECS    | TSCA | DSL | PICCS | ENCS | ISHL | AICS | KECL |
|--------------------------------|---|----------|------|-------|-----------|------|-----|-------|------|------|------|------|
|                                | Inventory of<br>Hazardous<br>Chemicals<br>(2015<br>Edition) | goods GB |      |       |           |      |     |       |      |      |      |      |
| 1H-Indole-3-carboxald<br>ehyde | -   | -        | Х    | Х     | 207-665-8 | Х    | -   | Х     | -    | Х    | -    | -    |

#### **National Regulations**

## **SECTION 16. OTHER INFORMATION**

| Prepared By      | Health, Safety and Environmental Department        |
|------------------|--|
| Revision Date    | 27-Apr-2024  |
| Revision Summary | New emergency telephone response service provider. |

### **Training Advice**

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

## Legend

|  | <b>TSCA</b> - United States Toxic Substances Control Act Section 8(b)<br>Inventory |
|--|--|
| EINECS/ELINCS - European Inventory of Existing Commercial Chemical | DSL/NDSL - Canadian Domestic Substances List/Non-Domestic                          |
| Substances/EU List of Notified Chemical Substances                 | Substances List  |
| PICCS - Philippines Inventory of Chemicals and Chemical Substances | ENCS - Japanese Existing and New Chemical Substances                               |
| IECSC - Chinese Inventory of Existing Chemical Substances          | AICS - Australian Inventory of Chemical Substances                                 |
| KECL - Korean Existing and Evaluated Chemical Substances           | NZIOC - New Zealand Inventory of Chemicals   |

## Indole-3-carboxaldehyde

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

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road OECD - Organisation for Economic Co-operation and Development BCF - Bioconcentration factor

Key literature references and sources for data https://echa.europa.eu/information-on-chemicals Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

TWA - Time Weighted Average
 IARC - International Agency for Research on Cancer
 PNEC - Predicted No Effect Concentration
 LD50 - Lethal Dose 50%
 EC50 - Effective Concentration 50%
 POW - Partition coefficient Octanol:Water
 vPvB - very Persistent, very Bioaccumulative
 IMO/IMDG - International Maritime Organization/Internation

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code MARPOL - International Convention for the Prevention of Pollution from Ships ATE - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**