

ALFAAL09545

## 2-Amino-4,5-dimethoxybenzonitrile

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

产品说明:  
Product Description: 2-氨基-4,5-二甲氧基苯甲腈  
2-Amino-4,5-dimethoxybenzonitrile

Cat No. : L09545  
CAS No 26961-27-3  
Molecular Formula C9 H10 N2 O2

Supplier Avocado Research Chemicals Ltd.  
(Part of Thermo Fisher Scientific)  
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Lancashire, LA3 2XY,  
United Kingdom  
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**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**: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  
Solid

Appearance  
Light yellow

Odor  
No information available

#### Emergency Overview

Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

#### Classification of the substance or mixture

|   |            |
|---|------------|
| Acute Oral Toxicity                         | Category 4 |
| Acute Dermal Toxicity                       | Category 4 |
| Acute Inhalation Toxicity - Dusts and Mists | Category 4 |

#### Label Elements



Signal Word

Warning

Hazard Statements

H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled

**Precautionary Statements****Prevention**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

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

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

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Response**

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P312 - Call a POISON CENTER or doctor if you feel unwell

P330 - Rinse mouth

P362 + P364 - Take off contaminated clothing and wash it before reuse

**Storage**

P403 - Store in a well-ventilated place

**Disposal**

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

**Physical and Chemical Hazards**

None identified.

**Health Hazards**

Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

**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.

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

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

| Component                         | CAS No     | Weight % |
|-----------------------------------|------------|----------|
| 2-Amino-4,5-dimethoxybenzonitrile | 26961-27-3 | <=100    |

**SECTION 4. FIRST AID MEASURES****General Advice**

If symptoms persist, call a physician.

**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 plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Most important symptoms and effects**

None reasonably foreseeable.

**Self-Protection of the First Aider**

No special precautions required.

**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

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. Use personal protective equipment as required. Avoid dust formation.

### Environmental Precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

### Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7. HANDLING AND STORAGE

### Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

### Storage

Keep container tightly closed in a dry and well-ventilated place.

### 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 | Breakthrough time | Glove thickness | EU standard | Glove comments        |
|----------------|-------------------|-----------------|-------------|-----------------------|
| Natural rubber | See manufacturers | -               | EN 374      | (minimum requirement) |
| Nitrile rubber | recommendations   |                 |             |                       |
| Neoprene       |                   |                 |             |                       |
| 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 compatibility, 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** 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  
**Recommended Filter type:** Particle filter

**Small scale/Laboratory use** Maintain adequate ventilation  
**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |                                |  |
|--|--------------------------------|--|
| <b>Appearance</b>                              | Light yellow                   |  |
| <b>Physical State</b>                          | Solid                          |  |
| <b>Odor</b>                                    | No information available       |  |
| <b>Odor Threshold</b>                          | No data available              |  |
| <b>pH</b>                                      | No information available       |  |
| <b>Melting Point/Range</b>                     | 97 - 101 °C / 206.6 - 213.8 °F |  |
| <b>Softening Point</b>                         | No data available              |  |
| <b>Boiling Point/Range</b>                     | No information available       |  |
| <b>Flash Point</b>                             | No information available       | <b>Method -</b> No information available |
| <b>Evaporation Rate</b>                        | Not applicable                 | Solid                                    |
| <b>Flammability (solid,gas)</b>                | No information available       |  |
| <b>Explosion Limits</b>                        | No data available              |  |
| <b>Vapor Pressure</b>                          | No data available              |  |
| <b>Vapor Density</b>                           | Not applicable                 | Solid                                    |
| <b>Specific Gravity / Density</b>              | No data available              |  |
| <b>Bulk Density</b>                            | No data available              |  |
| <b>Water Solubility</b>                        | Insoluble in water             |  |
| <b>Solubility in other solvents</b>            | No information available       |  |
| <b>Partition Coefficient (n-octanol/water)</b> |                                |  |

## 2-Amino-4,5-dimethoxybenzonitrile

|                           |                          |       |
|---------------------------|--------------------------|-------|
| 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 | C9 H10 N2 O2 |
| Molecular Weight  | 178.19       |

## SECTION 10. STABILITY AND REACTIVITY

|                          |                                 |
|--------------------------|---------------------------------|
| Stability                | Stable under normal conditions. |
| Hazardous Reactions      | None under normal processing.   |
| Hazardous Polymerization | No information available.       |
| Conditions to Avoid      | None known.                     |
| Materials to avoid       | No information available.       |

Hazardous Decomposition Products None under normal use conditions.

## SECTION 11. TOXICOLOGICAL INFORMATION

## Product Information

|  |   |
|--|---|
| (a) acute toxicity;                    |   |
| (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                          | No information available.                                 |
| (j) aspiration hazard;                 | Not applicable  |
|  | Solid   |

Symptoms / effects, both acute and delayed No information available

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity effects** Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

| Component                         | Freshwater Fish | Water Flea | Freshwater Algae | Microtox   |
|-----------------------------------|-----------------|------------|------------------|--|
| 2-Amino-4,5-dimethoxybenzonitrile |                 |            |                  | EC50 = 11.0 mg/L 5 min<br>EC50 = 12.0 mg/L 15 min<br>EC50 = 14.5 mg/L 30 min |

**Persistence and Degradability**  
**Persistence**

Insoluble in water.

**Bioaccumulative Potential**

May have some potential to bioaccumulate

**Mobility in soil**

Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water solubility

**Endocrine Disruptor Information**  
**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

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

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste from Residues/Unused Products**

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.

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point.

**Other Information**

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**

**UN-No**  
**Proper Shipping Name**  
**Technical Shipping Name**  
**Hazard Class**  
**Packing Group**

UN3439  
NITRILES, SOLID, TOXIC, N.O.S.  
(2-Amino-4,5-dimethoxybenzonitrile)  
6.1  
III

**IMDG/IMO**

**UN-No**  
**Proper Shipping Name**  
**Technical Shipping Name**  
**Hazard Class**  
**Packing Group**

UN3439  
NITRILES, SOLID, TOXIC, N.O.S.  
(2-Amino-4,5-dimethoxybenzonitrile)  
6.1  
III

## 2-Amino-4,5-dimethoxybenzonitrile

**IATA**

**UN-No** UN3439  
**Proper Shipping Name** NITRILES, SOLID, TOXIC, N.O.S.  
**Technical Shipping Name** (2-Amino-4,5-dimethoxybenzonitrile)  
**Hazard Class** 6.1  
**Packing Group** III

**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 Inventory of Hazardous Chemicals (2015 Edition) | List of dangerous goods GB 12268 - 2012 | TCSI | IECSC | EINECS | TSCA | DSL | PICCS | ENCS | ISHL | AICS | KECL |
|-----------------------------------|---|---|------|-------|--------|------|-----|-------|------|------|------|------|
| 2-Amino-4,5-dimethoxybenzonitrile | -   | -                                       | X    | -     | -      | -    | -   | -     | -    | -    | -    | -    |

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

**Prepared By** Health, Safety and Environmental Department  
**Revision Date** 01-May-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**

**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

**PNEC** - Predicted No Effect Concentration

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**2-Amino-4,5-dimethoxybenzonitrile**

**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

**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)

**Key literature references and sources for data**

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

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

**Disclaimer**

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**End of Safety Data Sheet**