

ALFAAA12869

## (Phenylthio)acetonitrile

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

产品说明: (苯硫基)乙腈  
Product Description: (Phenylthio)acetonitrile

Cat No. : A12869  
CAS No 5219-61-4  
Molecular Formula C8 H7 N S

Supplier Avocado Research Chemicals Ltd.  
(Part of Thermo Fisher Scientific)  
Shore Road, Heysham  
Lancashire, LA3 2XY,  
United Kingdom  
Office Tel: +44 (0) 1524 850506  
Office Fax: +44 (0) 1524 850608

Emergency Telephone Number For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**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**  
Liquid

**Appearance**  
Light yellow

**Odor**  
Stench

**Emergency Overview**

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

#### Classification of the substance or mixture

|                                    |            |
|------------------------------------|------------|
| Acute Oral Toxicity                | Category 4 |
| Acute Dermal Toxicity              | Category 4 |
| Acute Inhalation Toxicity - Vapors | Category 4 |

#### Label Elements



Signal Word

Warning

Hazard Statements

# SAFETY DATA SHEET

## (Phenylthio)acetonitrile

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.

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

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component                | CAS No    | Weight % |
|--------------------------|-----------|----------|
| (Phenylthio)acetonitrile | 5219-61-4 | 98       |

## 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. If not breathing, give artificial respiration. 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

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**

Water spray. Carbon dioxide (CO<sub>2</sub>). 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**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

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 mist/vapors/spray.

**Storage**

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

**Specific Use(s)**

Use in laboratories

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

Goggles (European standard - EN 166)

**Hand Protection**

Protective gloves

# SAFETY DATA SHEET

(Phenylthio)acetonitrile

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

|  |   |
|--|---|
| <b>Skin and body protection</b>        | Wear appropriate protective gloves and clothing to prevent skin exposure  |
| <b>Respiratory Protection</b>          | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.<br>To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly   |
| <b>Large scale/emergency use</b>       | Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced<br><b>Recommended Filter type:</b> Organic gases and vapours filter Type A Brown conforming to EN14387  |
| <b>Small scale/Laboratory use</b>      | 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.<br><b>Recommended half mask:-</b> Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141<br>When RPE is used a face piece Fit Test should be conducted |
| <b>Hygiene Measures</b>                | Handle in accordance with good industrial hygiene and safety practice.  |
| <b>Environmental exposure controls</b> | No information available.   |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |   |
|--|---|
| <b>Appearance</b>                              | Light yellow  |
| <b>Physical State</b>                          | Liquid  |
| <b>Odor</b>                                    | Stench  |
| <b>Odor Threshold</b>                          | No data available   |
| <b>pH</b>                                      | No information available  |
| <b>Melting Point/Range</b>                     | No data available   |
| <b>Softening Point</b>                         | No data available   |
| <b>Boiling Point/Range</b>                     | 136 - 138 °C / 276.8 - 280.4 °F @ 7 mmHg                          |
| <b>Flash Point</b>                             | No information available <b>Method -</b> No information available |
| <b>Evaporation Rate</b>                        | No data available   |
| <b>Flammability (solid,gas)</b>                | Not applicable Liquid   |
| <b>Explosion Limits</b>                        | No data available   |
| <b>Vapor Pressure</b>                          | No data available   |
| <b>Vapor Density</b>                           | No data available (Air = 1.0)                                     |
| <b>Specific Gravity / Density</b>              | 1.142   |
| <b>Bulk Density</b>                            | Not applicable Liquid   |
| <b>Water Solubility</b>                        | No information available  |
| <b>Solubility in other solvents</b>            | No information available  |
| <b>Partition Coefficient (n-octanol/water)</b> |   |
| <b>Autoignition Temperature</b>                | No data available   |
| <b>Decomposition Temperature</b>               | No data available   |

# SAFETY DATA SHEET

(Phenylthio)acetonitrile

|                             |                          |
|-----------------------------|--------------------------|
| <b>Viscosity</b>            | No data available        |
| <b>Explosive Properties</b> | No information available |
| <b>Oxidizing Properties</b> | No information available |

|                          |           |
|--------------------------|-----------|
| <b>Molecular Formula</b> | C8 H7 N S |
| <b>Molecular Weight</b>  | 149.22    |

## SECTION 10. STABILITY AND REACTIVITY

**Stability** Stable under normal conditions.

**Hazardous Reactions** No information available.  
**Hazardous Polymerization** No information available.

**Conditions to Avoid** Incompatible products.

**Materials to avoid** Acids. Bases. Metals. Reducing Agent.

**Hazardous Decomposition Products** Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Sulfur oxides. Hydrogen cyanide (hydrocyanic acid). nitric acid.

## 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;

|                    |                   |
|--------------------|-------------------|
| <b>Respiratory</b> | No data available |
| <b>Skin</b>        | 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

|                      |                           |
|----------------------|---------------------------|
| <b>Target Organs</b> | No information available. |
|----------------------|---------------------------|

(j) aspiration hazard; No data available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

# SAFETY DATA SHEET

(Phenylthio)acetonitrile

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

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects** Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

**Persistence and Degradability** No information available

**Bioaccumulative Potential** No information available

**Mobility in soil** No information available

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors  
**Persistent Organic Pollutant** This product does not contain any known or suspected substance  
**Ozone Depletion Potential** 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** UN3276  
**Proper Shipping Name** NITRILES, LIQUID, TOXIC, N.O.S.  
**Technical Shipping Name** (Phenylthio)acetonitrile  
**Hazard Class** 6.1  
**Packing Group** III

### IMDG/IMO

**UN-No** UN3276  
**Proper Shipping Name** NITRILES, LIQUID, TOXIC, N.O.S.  
**Technical Shipping Name** (Phenylthio)acetonitrile  
**Hazard Class** 6.1  
**Packing Group** III

### IATA

**UN-No** UN3276  
**Proper Shipping Name** NITRILES, LIQUID, TOXIC, N.O.S.  
**Technical Shipping Name** (Phenylthio)acetonitrile  
**Hazard Class** 6.1  
**Packing Group** III

# SAFETY DATA SHEET

(Phenylthio)acetonitrile

**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 |
|--------------------------|---|---|------|-------|-----------|------|-----|-------|------|------|------|------|
| (Phenylthio)acetonitrile | -   | -                                       | X    | X     | 226-013-3 | -    | -   | X     | -    |      | -    | -    |

### National Regulations

## SECTION 16. OTHER INFORMATION

**Prepared By** Health, Safety and Environmental Department  
**Revision Date** 22-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.

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

**PNEC** - Predicted No Effect Concentration

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**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)

# SAFETY DATA SHEET

(Phenylthio)acetonitrile

---

**Key literature references and sources for data**

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

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

**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**