

Classified as hazardous in accordance with the criteria of EPA New Zealand

## Section 1 - Identification

### Product Identifier

|                             |                                 |
|-----------------------------|---------------------------------|
| <b>Product Name</b>         | <b><u>5-Phenyltetrazole</u></b> |
| <b>CAS No</b>               | 18039-42-4                      |
| <b>Molecular Formula</b>    | C7 H6 N4                        |
| <b>Molecular Weight</b>     | 146.15                          |
| <b>Recommended Use</b>      | Laboratory chemicals.           |
| <b>Uses advised against</b> | No Information available        |

|                                |   |
|--------------------------------|---|
| <b>Product Code</b>            | <b>263720000; 263720050; 263720250</b>  |
| <b>Address</b>                 | Thermo Fisher Scientific New Zealand Ltd<br>244 Bush Road, Albany,<br>Auckland, New Zealand |
| <b>Emergency Tel.</b>          | <b>CHEMTREC®</b><br><b>09 980 6780 or +64 9 980 6780</b>                                    |
| <b>Telephone / Fax Numbers</b> | Tel: 09 980 6700<br>Fax: 09 980 6788  |
| <b>E-mail address</b>          | <a href="mailto:ANZinfo@thermofisher.com">ANZinfo@thermofisher.com</a>                      |

## Section 2 - Hazard(s) Identification

### Classification under Work Safe New Zealand

Classified as hazardous in accordance with the criteria of EPA New Zealand

### GHS Classification

#### Physical hazards

Flammable solids

Category 2

#### Health hazards

Acute Oral Toxicity

Category 4

#### Environmental hazards

Based on available data, the classification criteria are not met

### Label Elements

**Signal Word****Warning****Hazard Statements**

H228 - Flammable solid

H302 - Harmful if swallowed

**Precautionary Statements****Prevention**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P240 - Ground and bond container and receiving equipment

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

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

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

**Response**

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P330 - Rinse mouth

P374 - Fight fire with normal precautions from a reasonable distance

**Storage**

P403 - Store in a well-ventilated place

**Disposal**

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

**Other hazards which do not result in classification**

Risk of explosion if heated under confinement

## Section 3 - Composition and Information on Ingredients

| Component               | CAS No     | Weight % |
|-------------------------|------------|----------|
| 1H-Tetrazole, 5-phenyl- | 18039-42-4 | 99       |

## Section 4 - First Aid Measures

**Description of first aid measures****New Zealand Emergency Tel.**CHEMTREC®  
09 980 6780 or +64 9 980 6780**Inhalation**

Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

**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.

**Ingestion**

Do NOT induce vomiting. Get medical attention.

**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.

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|  |                                      |
|--|--------------------------------------|
| <b>First Aid Facilities</b>                | Eyewash, safety shower and washroom. |
| <b>Most important symptoms and effects</b> | No information available.            |
| <b>Notes to Physician</b>                  | 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**

Flammable. Combustible material. Containers may explode when heated.

### **Hazardous Combustion Products**

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### **Special protective equipment and precautions for fire fighters**

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, Protective Equipment and Emergency Procedures**

#### **Emergency procedures**

Ensure adequate ventilation.

#### **Environmental Precautions**

See Section 12 for additional Ecological Information.

#### **Methods for Containment and Clean Up**

Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Sweep up and shovel into suitable containers for disposal. Do not let this chemical enter the environment.

#### **Precautions to prevent secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations

#### **Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

## **Section 7 - Handling and Storage**

### **Precautions for Safe Handling**

#### **Advice on safe handling**

Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin and eyes. Do not breathe dust. Do not breathe mist/vapors/spray. Avoid contact with skin and clothing. Do not ingest. If swallowed then seek immediate medical assistance. Use spark-proof tools and explosion-proof equipment. Use only non-sparking tools.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

### **Conditions for Safe Storage, Including any Incompatibilities**

**Storage Conditions**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Flammables area.

**Incompatible Materials**

Strong oxidizing agents. Strong acids. Acid anhydrides. Acid chlorides.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

## Section 8 - Exposure Controls and Personal Protection

**Control parameters****Exposure limits**

The product does not contain any hazardous materials with occupational exposure limits established.

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

**Appropriate engineering controls****Engineering Measures**

Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. 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

**Individual protection measures, such as personal protective equipment****Eye Protection**

Goggles (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

**Hand Protection**

Protective gloves

| Glove material     | Breakthrough time                 | Glove thickness | AUS/NZ Standard | Glove comments        |
|--------------------|-----------------------------------|-----------------|-----------------|-----------------------|
| Disposable gloves. | See manufacturers recommendations | -               | AS/NZS 2161     | (minimum requirement) |

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**

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices (or AUS/NZ equivalent)  
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.

## Section 9 - Physical and Chemical Properties

**Information on basic physical and chemical properties**

|  |                          |  |
|--|--------------------------|--|
| <b>Physical State</b>                          | Powder Solid             |  |
| <b>Appearance</b>                              | Off-white                |  |
| <b>Odor</b>                                    | No information available |  |
| <b>Odor Threshold</b>                          | No data available        |  |
| <b>pH</b>                                      | No data available        |  |
| <b>Melting Point/Range</b>                     | No data available        |  |
| <b>Softening Point</b>                         | No data available        |  |
| <b>Boiling Point/Range</b>                     | No information available |  |
| <b>Flammability (liquid)</b>                   | Not applicable           | Solid                                    |
| <b>Flammability (solid,gas)</b>                | No information available |  |
| <b>Explosion Limits</b>                        | No data available        |  |
| <b>Flash Point</b>                             | No information available | <b>Method -</b> No information available |
| <b>Autoignition Temperature</b>                | No data available        |  |
| <b>Decomposition Temperature</b>               | No data available        |  |
| <b>Viscosity</b>                               | No data available        |  |
| <b>Water Solubility</b>                        | No information available |  |
| <b>Solubility in other solvents</b>            | No information available |  |
| <b>Partition Coefficient (n-octanol/water)</b> |                          |  |
| <b>Vapor Pressure</b>                          | No data available        |  |
| <b>Density / Specific Gravity</b>              | No data available        |  |
| <b>Bulk Density</b>                            | No data available        |  |
| <b>Vapor Density</b>                           | No data available        | (Air = 1.0)                              |
| <b>Particle characteristics</b>                | No data available        |  |

**Other information**

|                          |   |
|--------------------------|---|
| <b>Molecular Formula</b> | C7 H6 N4  |
| <b>Molecular Weight</b>  | 146.15  |
| <b>Flammable solids</b>  | Burning rate or burning time = > 2.2 mm/s or < 45 secs<br>Wetted zone passed - No |

**Section 10 - Stability and Reactivity**

|   |   |
|---|---|
| <b>Reactivity</b>                       | Yes   |
| <b>Stability</b>                        | Risk of explosion if heated under confinement.  |
| <b>Sensitivity to Mechanical Impact</b> | No information available  |
| <b>Sensitivity to Static Discharge</b>  | No information available  |
| <b>Hazardous Polymerization</b>         | No information available.   |
| <b>Hazardous Reactions</b>              | No information available.   |
| <b>Conditions to Avoid</b>              | Heat, flames and sparks, Keep away from open flames, hot surfaces and sources of ignition, Incompatible products. |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong acids, Acid anhydrides, Acid chlorides.   |
| <b>Hazardous Decomposition Products</b> | Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).                                   |

**Section 11 - Toxicological Information****Acute Effects**

**Information on likely routes of exposure**

|                            |  |
|----------------------------|--|
| <b>Product Information</b> | No acute toxicity information is available for this product    |
| <b>Inhalation</b>          | Avoid breathing dust or spray mist. May be harmful if inhaled. |
| <b>Eyes</b>                | Avoid contact with eyes.                                       |
| <b>Skin</b>                | Avoid contact with skin.                                       |
| <b>Ingestion</b>           | May be harmful if swallowed.                                   |

**Numerical measures of toxicity**

|                            |                   |
|----------------------------|-------------------|
| <b>(a) acute toxicity;</b> |                   |
| <b>Oral</b>                | No data available |
| <b>Dermal</b>              | No data available |
| <b>Inhalation</b>          | No data available |

| Component               | LD50 Oral                 | LD50 Dermal | LC50 Inhalation |
|-------------------------|---------------------------|-------------|-----------------|
| 1H-Tetrazole, 5-phenyl- | LD50 = 1901 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** No information available.

**(j) aspiration hazard;** No data available

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

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

## **Section 12 - Ecological Information**

**Ecotoxicity**

**Aquatic ecotoxicity** Do not empty into drains.

|                                 |   |
|---------------------------------|---|
| Terrestrial ecotoxicity         | There is no data for this product   |
| Persistence and Degradability   | No information available  |
| Bioaccumulative Potential       | No information available  |
| Mobility                        | No information available.   |
| <u>Other adverse effects</u>    |   |
| 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 treatment methods

|                                     |  |
|-------------------------------------|--|
| Waste from Residues/Unused Products | Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations. |
| Contaminated Packaging              | Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.   |
| Other Information                   | Disposal agencies or waste contractors must comply with the New Zealand Hazardous Substances (Disposal) Regulations .  |

## Section 14 - Transport Information

### NZS 5433:2020

|                         |                                  |
|-------------------------|----------------------------------|
| UN-No                   | UN1325                           |
| Proper Shipping Name    | FLAMMABLE SOLID, ORGANIC, N.O.S. |
| Technical Shipping Name | (5-Phenyltetrazole)              |
| Hazard Class            | 4.1                              |
| Packing Group           | II                               |

### IATA

|                         |                                   |
|-------------------------|-----------------------------------|
| UN-No                   | UN1325                            |
| Proper Shipping Name    | FLAMMABLE SOLIDS, ORGANIC, N.O.S. |
| Technical Shipping Name | (5-Phenyltetrazole)               |
| Hazard Class            | 4.1                               |
| Packing Group           | II                                |

### IMDG/IMO

|                         |                                   |
|-------------------------|-----------------------------------|
| UN-No                   | UN1325                            |
| Proper Shipping Name    | FLAMMABLE SOLIDS, ORGANIC, N.O.S. |
| Technical Shipping Name | (5-Phenyltetrazole)               |
| Hazard Class            | 4.1                               |

|   |   |
|---|---|
| <b>Packing Group</b>  | II  |
| <b>Environmental hazards</b>  | No hazards identified   |
| <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable, packaged goods  |
| <b>Special Precautions</b>  | No special precautions required. Please refer to the applicable dangerous goods regulations for additional information. |
| <b>Additional information</b>   | None known  |

## Section 15 - Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National Regulations

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

#### Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information. Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information.

#### Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

### International Regulations

|   |  |
|---|--|
| <b>Ozone Depletion Potential</b>                        | This product does not contain any known or suspected substance |
| <b>Persistent Organic Pollutant</b>                     | This product does not contain any known or suspected substance |
| <b>Rotterdam Convention (PIC)</b>                       | Not applicable   |
| <b>Authorisation/Restrictions according to EU REACH</b> | Not applicable   |

### International Inventories

New Zealand (NZIoC), Australia (AICS), Europe (EINECS/ELINCS/NLP), Korea (KECL), China (IECSC), Taiwan (TCSI), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component               | CAS No     | NZIoC | AICS | EINECS    | ELINCS | NLP | KECL            | IECSC | TCSI |
|-------------------------|------------|-------|------|-----------|--------|-----|-----------------|-------|------|
| 1H-Tetrazole, 5-phenyl- | 18039-42-4 | X     | X    | 241-950-8 | -      | -   | 2010-3-43<br>47 | X     | X    |

| Component               | CAS No     | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | PICCS | ISHL | ENCS |
|-------------------------|------------|------|---|-----|------|-------|------|------|
| 1H-Tetrazole, 5-phenyl- | 18039-42-4 | X    | ACTIVE  | X   | -    | -     | X    | X    |

**Legend:** X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)



## Section 16 - Other Information

This safety data sheet complies with the requirements of the EPA Hazardous Substances (Hazard Classification) Notice 2020 and WorkSafe New Zealand Regulations

### Legend

|  |  |
|--|--|
| <b>NZIoC</b> - New Zealand Inventory of Chemicals  | <b>AICS</b> - Australian Inventory of Chemical Substances  |
| <b>TSCA</b> - United States Toxic Substances Control Act Section 8(b) Inventory                      | <b>EINECS/ELINCS</b> - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances |
| <b>DSL/NDL</b> - Canadian Domestic Substances List/Non-Domestic Substances List                      | <b>ENCS</b> - Japanese Existing and New Chemical Substances  |
| <b>IECSC</b> - Chinese Inventory of Existing Chemical Substances                                     | <b>KECL</b> - Korean Existing and Evaluated Chemical Substances  |
| <b>PICCS</b> - Philippines Inventory of Chemicals and Chemical Substances                            | <b>CAS</b> - Chemical Abstracts Service  |
| <b>TWA</b> - Time Weighted Average   | <b>ACGIH</b> - American Conference of Governmental Industrial Hygienists   |
| <b>IARC</b> - International Agency for Research on Cancer  | <b>PNEC</b> - Predicted No Effect Concentration  |
| <b>NZS 5433:2020</b> - Transport of Dangerous Goods on Land  | <b>OECD</b> - Organisation for Economic Co-operation and Development   |
| <b>ICAO/IATA</b> - International Civil Aviation Organization/International Air Transport Association | <b>IMO/IMDG</b> - International Maritime Organization/International Maritime Dangerous Goods Code                            |
| <b>MARPOL</b> - International Convention for the Prevention of Pollution from Ships                  | <b>ADG</b> - Australian Code for the Transport of Dangerous Goods by Road and Rail   |
| <b>LD50</b> - Lethal Dose 50%  | <b>LC50</b> - Lethal Concentration 50%   |
| <b>EC50</b> - Effective Concentration 50%  | <b>ATE</b> - Acute Toxicity Estimate   |
| <b>WEL</b> - Workplace Exposure Limit  | <b>RPE</b> - Respiratory Protective Equipment  |
| <b>DNEL</b> - Derived No Effect Level  | <b>NOEC</b> - No Observed Effect Concentration   |
| <b>POW</b> - Partition coefficient Octanol:Water   | <b>BCF</b> - Bioconcentration factor   |
| <b>vPvB</b> - very Persistent, very Bioaccumulative  | <b>PBT</b> - Persistent, Bioaccumulative, Toxic  |
| <b>VOC</b> - (Volatile Organic Compound)   |  |

### Key literature references and sources for data

HSNO classifications provided in the New Zealand Chemical Classification Information Database (CCID).  
<https://echa.europa.eu/information-on-chemicals>  
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS  
EPA Guide to classifying hazardous substances in New Zealand  
EPA - Assigning a product to an existing HSNO approval guide

### Training Advice

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

|                         |                |
|-------------------------|----------------|
| <b>Revision Date</b>    | 10-Mar-2023    |
| <b>Revision Summary</b> | Not applicable |

### 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