

## Section 1 - Identification

**Product Name** TRIPHENYLTETRAZOLIUM CHLORIDE Solution

|                                |  |
|--------------------------------|--|
| <b>Product Code</b>            | <b>AMY100603, HAC24060-42</b>  |
| <b>Address</b>                 | ThermoFisher Scientific Australia Pty Ltd<br>5 Caribbean Drive, Scoresby<br>VICTORIA 3179, Australia |
| <b>Emergency Tel.</b>          | <b>CHEMTREC®</b><br><b>03 9757 4559 or +613 9757 4559</b>  |
| <b>Telephone / Fax Numbers</b> | Tel: 1300 735 292<br>Fax: 1800 067 639   |
| <b>E-mail address</b>          | ANZinfo@thermofisher.com   |

**Recommended Use** Laboratory chemicals.

**Uses advised against** This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list. This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern.

## Section 2 - Hazard(s) Identification

### Classification under Safe Work Australia

Classified as not hazardous according to criteria of Safe Work Australia.

**Physical hazards**  
No hazards identified

**Health hazards**  
No hazards identified

**Environmental hazards**  
No hazards identified

**Label Elements** None required

**Other information**  
No information available  
This product does not contain any known or suspected endocrine disruptors

## Section 3 - Composition and Information on Ingredients

| Component                                  | CAS No   | Weight % |
|--|----------|----------|
| 2H-Tetrazolium, 2,3,5-triphenyl-, chloride | 298-96-4 | 0.125    |

## Section 4 - First Aid Measures

|  |   |
|--|---|
| <b>Inhalation</b>                          | Remove to fresh air. Get medical attention immediately if symptoms occur.   |
| <b>Ingestion</b>                           | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.                   |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.         |
| <b>Self-Protection of the First Aider</b>  | No special precautions required.  |
| <b>First Aid Facilities</b>                | Eyewash, safety shower and washroom.  |
| <b>Most important symptoms and effects</b> | None reasonably foreseeable.  |
| <b>Notes to Physician</b>                  | 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.

### 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

### Emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

### Environmental Precautions

Should not be released into the environment.

### Methods for Containment and Clean Up

#### Clean-up methods - small spillage

Sweep up and shovel into suitable containers for disposal.

#### Clean-up methods - large spillage

Not applicable, packaged goods.

#### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## Section 7 - Handling and Storage

#### Precautions for Safe Handling

Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

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

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

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

## Section 8 - Exposure Controls and Personal Protection

#### 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

#### Exposure Controls

##### Engineering Measures

None under normal use conditions.

#### Personal protective equipment

##### Eye Protection

If splashes are likely to occur: (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        |
|----------------|-----------------------------------|-----------------|-----------------|-----------------------|
| Natural rubber | See manufacturers recommendations | -               | AS/NZS 2161     | (minimum requirement) |
| Nitrile rubber |                                   |                 |                 |                       |
| 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 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

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

##### Recommended Filter type:

Particle filter (or AUS/NZ equivalent)

#### 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

|   |                          |                                   |
|---|--------------------------|-----------------------------------|
| Appearance                              | Colourless               |                                   |
| Physical State                          | Liquid                   |                                   |
| Odor                                    | No information available |                                   |
| Odor Threshold                          | No data available        |                                   |
| pH                                      | Not applicable           |                                   |
| Melting Point/Range                     | No data available        |                                   |
| Softening Point                         | No data available        |                                   |
| Boiling Point/Range                     | Not applicable           |                                   |
| Flash Point                             | Not applicable           | Method - No information available |
| Evaporation Rate                        | No data available        |                                   |
| Flammability (solid,gas)                | Not applicable           | Liquid                            |
| Explosion Limits                        | No data available        |                                   |
| Vapor Pressure                          | No data available        |                                   |
| Vapor Density                           | No data available        | (Air = 1.0)                       |
| Specific Gravity / Density              | No data available        |                                   |
| Bulk Density                            | Not applicable           | Liquid                            |
| 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                               | No data available        |                                   |
| Explosive Properties                    | No information available |                                   |
| Oxidizing Properties                    | No information available |                                   |

### Other information

## Section 10 - Stability and Reactivity

|                                  |  |
|----------------------------------|--|
| Reactivity                       | None known, based on information available |
| Stability                        | Stable under normal conditions.            |
| Conditions to Avoid              | Incompatible products, Excess heat.        |
| Incompatible Materials           | None known.                                |
| Hazardous Decomposition Products | None under normal use conditions.          |
| Hazardous Polymerization         | Hazardous polymerization does not occur.   |

## Section 11 - Toxicological Information

### Information on Toxicological Effects

Product Information Product does not present an acute toxicity hazard based on known or supplied information

(a) acute toxicity;

|  |   |
|--|---|
| Oral                                       | No data available   |
| Dermal                                     | No data available   |
| Inhalation                                 | No data available   |
| (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   |
| 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. |
| Persistence and Degradability   | No information available  |
| Bioaccumulative Potential       | No information available  |
| Mobility                        | 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 | 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                   | Chemical wastes should be disposed through a licensed commercial waste collection service.   |

## Section 14 - Transport Information

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>IMDG/IMO</b>               | Not regulated                   |
| <b>ADG</b>                    | Not regulated                   |
| <b>IATA</b>                   | Not regulated                   |
| <b>Environmental hazards</b>  | No hazards identified           |
| <b>Special Precautions</b>    | No special precautions required |
| <b>Additional information</b> | None known                      |

## Section 15 - Regulatory Information

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

#### National Regulations                      **Australia**

See section 8 for national exposure control parameters.

#### **Standard for the Uniform Scheduling of Medicines and Poisons**

No poison schedule number allocated.

#### **Australian Industrial Chemicals Introduction Scheme (AICIS)**

| Component   | Australian Industrial Chemicals Introduction Scheme (AICIS) | Additional information |
|---|---|------------------------|
| 2H-Tetrazolium, 2,3,5-triphenyl-, chloride - 298-96-4 | Present   | -                      |

#### **Australian - Illicit Drug Precursors/Reagents Substance List**

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

#### **Chemicals of Security Concern**

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

#### **National pollutant inventory**                      Not applicable

#### **Prohibition or notification/licensing requirements**

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

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

**International Inventories**

| Component  | AICS | NZIoC | EINECS    | ELINCS | TSCA | DSL | NDSL | PICCS | ENCS | ISHL | IECSC | KECL     |
|--|------|-------|-----------|--------|------|-----|------|-------|------|------|-------|----------|
| 2H-Tetrazolium,<br>2,3,5-triphenyl-,<br>chloride | X    | X     | 206-071-6 | -      | X    | X   | -    | X     | -    |      | X     | KE-34747 |

**Legend:** X - Listed. '-' - Not Listed. **KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**International Regulations**

**Ozone Depletion Potential** This product does not contain any known or suspected substance

**Persistent Organic Pollutant** This product does not contain any known or suspected substance

**Rotterdam Convention (PIC)** Not applicable

**Basel convention on the control of transboundary movements of hazardous wastes and their disposal**  
Not applicable.

| Component                                     | CAS No   | OECD HPV       | Restriction of<br>Hazardous<br>Substances (RoHS) | Seveso III Directive<br>(2012/18/EC) -<br>Qualifying Quantities<br>for Major Accident<br>Notification | Seveso III Directive<br>(2012/18/EC) -<br>Qualifying Quantities<br>for Safety Report<br>Requirements |
|---|----------|----------------|--|---|--|
| 2H-Tetrazolium,<br>2,3,5-triphenyl-, chloride | 298-96-4 | Not applicable | Not applicable                                   | Not applicable  | Not applicable   |

**Authorisation/Restrictions according to EU REACH** Not applicable

**Section 16 - Other Information****Legend**

**AICS** - Australian Inventory of Chemical Substances  
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**IECSC** - Chinese Inventory of Existing Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**TWA** - Time Weighted Average  
**IARC** - International Agency for Research on Cancer  
**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association  
**MARPOL** - International Convention for the Prevention of Pollution from Ships  
**NZS 5433:2020** - Transport of Dangerous Goods on Land  
**LD50** - Lethal Dose 50%  
**EC50** - Effective Concentration 50%  
**WEL** - Workplace Exposure Limit  
**DNEL** - Derived No Effect Level  
**POW** - Partition coefficient Octanol:Water

**NZIoC** - New Zealand Inventory of Chemicals  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japanese Existing and New Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**CAS** - Chemical Abstracts Service  
**ACGIH** - American Conference of Governmental Industrial Hygienists  
**PNEC** - Predicted No Effect Concentration (PNEC)  
**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code  
**ADG** - Australian Code for the Transport of Dangerous Goods by Road and Rail  
**OECD** - Organisation for Economic Co-operation and Development  
**LC50** - Lethal Concentration 50%  
**ATE** - Acute Toxicity Estimate  
**RPE** - Respiratory Protective Equipment  
**NOEC** - No Observed Effect Concentration  
**BCF** - Bioconcentration factor

vPvB - very Persistent, very Bioaccumulative  
VOC - (Volatile Organic Compound)

PBT - Persistent, Bioaccumulative, Toxic

**Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>  
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Training Advice**

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

**Revision Date** 14-Jul-2023  
**Revision Summary** Update to GHS format.

**This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).**

**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**