

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-20

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Tris-(2-cyanoethyl)phosphine  
Product Number : T131222  
Brand : aladdin  
CAS-No. : 4023-53-4

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity - Oral [Category 2]

Acute toxicity - Inhalation (Dusts/Mists) [Category 2]

Skin corrosion/irritation [Category 2]

Serious eye damage/eye irritation [Category 2A]

Specific target organ toxicity (single exposure) [Category 3]

### 2.2 GHS Label elements, including precautionary statements

Pictogram



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| Signal word                       | Danger                                                                                                                           |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazard statement(s)</b>        |                                                                                                                                  |
| H301                              | Toxic if swallowed                                                                                                               |
| H302                              | Harmful if swallowed                                                                                                             |
| H311                              | Toxic in contact with skin                                                                                                       |
| H315                              | Causes skin irritation                                                                                                           |
| H319                              | Causes serious eye irritation                                                                                                    |
| H330                              | Fatal if inhaled                                                                                                                 |
| H331                              | Toxic if inhaled                                                                                                                 |
| H335                              | May cause respiratory irritation                                                                                                 |
| H350                              | May cause cancer                                                                                                                 |
| <b>Precautionary statement(s)</b> |                                                                                                                                  |
| P260                              | Do not breathe dust/fume/gas/mist/vapors/spray.                                                                                  |
| P261                              | Avoid breathing dust/fume/gas/mist/vapors/spray.                                                                                 |
| P264                              | Wash hands [and ...] 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.                                                       |
| P284                              | [In case of inadequate ventilation] Wear respiratory protection.                                                                 |
| P320                              | Specific treatment is urgent (see ... on this label).                                                                            |
| P321                              | Specific treatment (see ... on this label).                                                                                      |
| P330                              | Rinse mouth.                                                                                                                     |
| P302+P352                         | IF ON SKIN: wash with plenty of water.                                                                                           |
| P304+P340                         | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P305+P351+P338                    | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. |
| P361+P364                         | Take off immediately all contaminated clothing and wash it before reuse.                                                         |
| P362+P364                         | Take off contaminated clothing and wash it before reuse.                                                                         |
| P405                              | Store locked up.                                                                                                                 |
| P403+P233                         | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| P501                              | Dispose of contents/container to an approved waste disposal plant.                                                               |
| P203                              | Obtain, read and follow all safety instructions before use.                                                                      |
| P264+P265                         | Wash hands [and ...] thoroughly after handling. Do not touch eyes.                                                               |
| P301+P316                         | IF SWALLOWED: Get emergency medical help immediately.                                                                            |
| P301+P317                         | IF SWALLOWED: Get medical help.                                                                                                  |
| P318                              | if exposed or concerned, get medical advice.                                                                                     |
| P337+P317                         | If eye irritation persists: Get medical help.                                                                                    |
| P332+P317                         | If skin irritation occurs: Get medical help.                                                                                     |
| P316                              | Get emergency medical help immediately.                                                                                          |
| P319                              | Get medical help if you feel unwell.                                                                                             |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

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Phone: +1 (833) 552-7181 Email: [QualityAssurance@aladdinsci.com](mailto:QualityAssurance@aladdinsci.com) Website: <https://www.aladdinsci.com/>

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                                   |
|------------------|---------------------------------------------------|
| Synonyms         | : no data available                               |
| Formula          | : C <sub>9</sub> H <sub>12</sub> N <sub>3</sub> P |
| Molecular weight | : 193.185                                         |
| CAS No.          | : 4023-53-4                                       |
| EC-NO.           | : no data available                               |

| Component                          | Classification    | Concentration |
|------------------------------------|-------------------|---------------|
| <b>Tris-(2-cyanoethyl)phophine</b> |                   |               |
|                                    | no data available | ≥94%          |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician if necessary. Remove to fresh air.

#### If inhaled

Transfer to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

#### In case of skin contact

Wash skin with soap and water.

#### In case of eye contact

Wash with plenty of water.

#### If swallowed

Never feed anything to an unconscious person. Rinse your mouth and drink more water.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

#### Unsuitable extinguishing media

no data available

### 5.2 Special hazards arising from the substance or mixture

no data available

### 5.3 Advice for firefighters

Wear self-contained breathing and full protective equipment

### 5.4 Further information

no data available

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas.

### 6.2 Environmental precautions

See Section 12 for additional Ecological Information.

### 6.3 Methods and materials for containment and cleaning up

If safety requires, prevent further leakage or spillage. Use personal protective equipment as needed. Cover the powder spillage with plastic cloth or waterproof cloth to minimize diffusion and keep the powder dry. Use the machine to lift and place in a suitable container for disposal. Avoid dust generation. Thoroughly clean contaminated surfaces.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature.

### 7.3 Specific end use(s)

no data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

#### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN(EU).

#### Control of environmental exposure

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                   |
|-------------------------------------------------|-------------------|
| a) Appearance                                   | no data available |
| b) Odour                                        | no data available |
| c) Odour Threshold                              | no data available |
| d) pH                                           | no data available |
| e) Melting point/freezing point                 | 97 °C             |
| f) Initial boiling point and boiling range      | 235°C             |
| g) Flash point                                  | no data available |
| h) Evaporation rate                             | no data available |
| i) Flammability (solid, gas)                    | no data available |
| j) Upper/lower flammability or explosive limits | no data available |
| k) Vapour pressure                              | no data available |
| l) Vapour density                               | no data available |
| m) Relative density                             | no data available |
| n) Water solubility                             | no data available |
| o) Partition coefficient: n-octanol/water       | no data available |
| p) Auto-ignition temperature                    | no data available |
| q) Decomposition temperature                    | no data available |
| r) Viscosity                                    | no data available |
| s) Explosive properties N                       | no data available |
| t) Oxidizing properties N                       | no data available |

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## 9.2 Other safety information

no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

Carbon oxides. Hydrogen cyanide. Nitrogen oxides (NO<sub>x</sub>).

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

no data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/eye irritation

no data available

#### Respiratory or skin sensitisation

no data available

#### Germ cell mutagenicity

no data available

#### Carcinogenicity

no data available

#### Reproductive toxicity

no data available

#### Specific target organ toxicity - single exposure

no data available

#### Specific target organ toxicity - repeated exposure

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no data available  
**Aspiration hazard**  
 no data available  
**Additional Information**  
 no data available

**SECTION 12: Ecological information**

- 12.1 Toxicity**  
no data available
- 12.2 Persistence and degradability**  
no data available
- 12.3 Bioaccumulative potential**  
no data available
- 12.4 Mobility in soil**  
no data available
- 12.5 Results of PBT and vPvB assessment**  
no data available
- 12.6 Other adverse effects**  
no data available

**SECTION 13:**

- 13.1 Disposal considerations**  
**Product**  
 Disposal should be in accordance with applicable regional, national and local laws and regulations.  
**Contaminated packaging**  
 Dispose of as unused product.

**SECTION 14: Transport information**

**DOT (US)**  
 UN number: UN3464                      Packing group: II                      Class: 6.1  
 Proper shipping name:                      Reportable Quantity(RQ): no data                      Poison Inhalation Hazard: no data  
 Organophosphorus compound, solid,                      available                      available  
 toxic, n.o.s.  
 Environmental Hazards: no data available  
**IMDG**

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UN number: UN3464

Packing group: II

EMS-No: F-A,S-A

Proper shipping name: Organophosphorus compound, solid, toxic, n.o.s.

**IATA**

UN number: UN3464

Packing group: II

Class: 6.1

Proper shipping name: Organophosphorus compound, solid, toxic, n.o.s.

## SECTION 15: Regulatory information

Please note that waste disposal should also meet local regulations. If applicable, the chemical meets the requirements of the Regulations on the Safety Management of Hazardous Chemicals (adopted by the State Council on December 4, 2013).

## SECTION 16: Other information

**Prepared By**

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

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**Revision Summary**

SDS sections updated v1

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