

# SAFETY DATA SHEET

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

### 1.1 Product identifiers

Product name : Phenyl isothiocyanate  
Product Number : P110636  
Brand : aladdin  
CAS-No. : 103-72-0

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

Identified uses : It is only for scientific research purposes, not for medicine, family standby medicine or other purposes.

### 1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co.,Ltd  
Address : 36 Xinjinqiao Road, Shanghai  
Telephone : 400-620-6333  
Fax : no data available

### 1.4 Emergency telephone number

Emergency Phone : 0532-83889090

## 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 3), H301

Skin corrosion (Sub-category 1B), H314

Respiratory sensitization (Category 1), H334

Skin sensitization (Category 1), H317

### 2.2 GHS Label elements, including precautionary statements

#### Pictogram



#### Signal word

Danger

#### Hazard statement(s)

H227 Combustible liquid

|                                   |                                                                                                                                  |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| H301                              | Toxic if swallowed                                                                                                               |
| H314                              | Causes severe skin burns and eye damage                                                                                          |
| H317                              | May cause an allergic skin reaction                                                                                              |
| H334                              | May cause allergy or asthma symptoms or breathing difficulties if inhaled                                                        |
| H410                              | Very toxic to aquatic life with long lasting effects                                                                             |
| <b>Precautionary statement(s)</b> |                                                                                                                                  |
| P210                              | Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.                                  |
| 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.                                                                              |
| P272                              | Contaminated work clothing should not be allowed out of the workplace.                                                           |
| P273                              | Avoid release to the environment.                                                                                                |
| P280                              | Wear protective gloves/protective clothing/eye protection/face protection.                                                       |
| P284                              | [In case of inadequate ventilation] Wear respiratory protection.                                                                 |
| P310                              | Immediately call a POISON CENTER or doctor/physician.                                                                            |
| P391                              | Collect spillage.                                                                                                                |
| P301+P310                         | IF SWALLOWED: Immediately call a POISON CENTER/doctor/...                                                                        |
| P301+P330+P331                    | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                                                                               |
| P303+P361+P353                    | IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].                         |
| 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. |
| P333+P313                         | IF SKIN irritation or rash occurs: Get medical advice/attention.                                                                 |
| P342+P311                         | IF experiencing respiratory symptoms: Call a POISON CENTER/doctor/...                                                            |
| P362+P364                         | Take off contaminated clothing and wash it before reuse.                                                                         |
| P370+P378                         | In case of fire: Use ... to extinguish.                                                                                          |
| P405                              | Store locked up.                                                                                                                 |
| P403+P235                         | Store in a well-ventilated place. Keep cool.                                                                                     |
| P501                              | Dispose of contents/container to an approved waste disposal plant.                                                               |

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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                        |
|------------------|----------------------------------------|
| Synonyms         | : PITC;Isothiocyanic Acid Phenyl Ester |
| Formula          | : C7H5NS                               |
| Molecular weight | : 135.19                               |
| CAS No.          | : 103-72-0                             |
| EC-NO.           | : 203-138-1                            |

| Component             | Classification                                                                   | Concentration         |
|-----------------------|----------------------------------------------------------------------------------|-----------------------|
| Phenyl isothiocyanate | Acute Tox. 3; Skin Corr. 1B; Resp. Sens. 1; Skin Sens. 1; H301, H314, H334, H317 | 99%,for HPLC labeling |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Unsuitable extinguishing media

no data available

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

Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers.

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## **SECTION 6: Accidental release measures**

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

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

### **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**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature : 2 - 8 °C. Moisture sensitive.

### **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

#### Eyel/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

The gloves must be checked before use. Please use the correct method to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle contaminated gloves carefully in accordance with relevant laws and regulations and effective laboratory procedures and procedures. Please clean and dry the protective gloves selected for your hands, which must comply with the specifications given in Regulation (EU) 2016/425 and the en 374 standard derived therefrom.

#### Body Protection

Impermeable clothing, flame-retardant and anti-static protective clothing, and the type of protective equipment must be selected according to the concentration and content of the dangerous substance in the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                                                   |
|-------------------------------------------------|---------------------------------------------------|
| a) Appearance                                   | form: Liquid color: Colorless                     |
| b) Odour                                        | no data available                                 |
| c) Odour Threshold                              | no data available                                 |
| d) pH                                           | no data available                                 |
| e) Melting point/freezing point                 | -21 °C                                            |
| f) Initial boiling point and boiling range      | 221 °C                                            |
| g) Flash point                                  | 87°C                                              |
| 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                             | Insoluble in water, soluble in alcohol and ether. |
| 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 |

## 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

Heat, flames and sparks.

### 10.5 Incompatible materials

Water, Alcohols, Strong bases, Amines, acids, Strong oxidizing agents

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Mouse - 87 mg/kg

Remarks: Kidney, Ureter, Bladder:Urine volume increased.

#### 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**

no data available

**Aspiration hazard**

no data available

**Additional Information**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, Shortness of breath, Headache, Nausea.

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - 0,1 mg/l - 48 h

### 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

Toxic to aquatic life.

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## SECTION 13:

### 13.1 Disposal considerations

**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

## SECTION 14: Transport information

### DOT (US)

|                                                                                       |                                            |                                             |
|---------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------|
| UN number: 2927                                                                       | Packing group: II                          | Class: 6.1                                  |
| Proper shipping name: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Phenylisothiocyanate) | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: No                                                             |                                            |                                             |

### IMDG

|                                                                                       |                   |                           |
|---------------------------------------------------------------------------------------|-------------------|---------------------------|
| UN number: 2927                                                                       | Packing group: II | EMS-No: no data available |
| Proper shipping name: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Phenylisothiocyanate) |                   |                           |

### IATA

|                                                                                       |                   |            |
|---------------------------------------------------------------------------------------|-------------------|------------|
| UN number: 2927                                                                       | Packing group: II | Class: 6.1 |
| Proper shipping name: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Phenylisothiocyanate) |                   |            |

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## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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## SECTION 16: Other information

### Further information

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