

# SAFETY DATA SHEET

## TRIIISOBUTYL PHOSPHATE

Revision Date 28/05/2024



### 1 - PRODUCT AND COMPANY IDENTIFICATION

#### Product Name

Triisobutyl phosphate

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

Palica Chemistry Co., Limited

Add: 181 Taibai Rd., Xi'an 710065, P.R.China.

Email: info@palica.com.cn

#### Emergency Phone #

800-424-9300 (USA)

+86-29-8928-7466 (Outside USA)

### 2 - HAZARDS IDENTIFICATION

#### Emergency Overview

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

Skin sensitization (Category 1), H317

Short-term (acute) aquatic hazard (Category 3), H402

#### GHS Label elements, including precautionary statements

##### Pictogram



##### Signal word

Warning

##### Hazard statements

H317 - May cause an allergic skin reaction.

H402 - Harmful to aquatic life.

##### Precautionary statements

##### Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P273 - Avoid release to the environment.

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

##### Response

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.

P363 - Wash contaminated clothing before reuse.

#### **Storage**

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

#### **Disposal**

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. Dispose of contents and container to an approved waste disposal plant.

### **3 - COMPOSITION / INFORMATION ON INGREDIENTS**

**Synonyms:** tris(2-methylpropyl) phosphate

**Molecular Formula:** C<sub>12</sub>H<sub>27</sub>O<sub>4</sub>P

**Molecular Weight:** 266.32 g/mol

**CAS#:** 126-71-6

**EC-No.:** 204-798-3

**Concentration:** 100%

### **4 - FIRST AID MEASURES**

#### **General advice**

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

Move out of dangerous area. Remove contaminated clothing.

#### **If inhaled**

If breathed in, move person into fresh air.

Treat symptomatically. If symptoms persist, call a physician.

#### **In case of skin contact**

Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Consult a physician.

#### **In case of eye contact**

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### **If swallowed**

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

No data available.

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

No data available.

### **5 - FIRE-FIGHTING MEASURES**

#### **Suitable extinguishing media**

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

#### **Unsuitable extinguishing media**

No data available.

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

Carbon oxides.

Oxides of phosphorus.

Combustible.

Fire may cause evolution of: Oxides of phosphorus.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

### **Hazardous thermal decomposition products**

No data available.

### **Special protective actions for fire-fighters**

No data available.

### **Advice for fire-fighters**

Stay in danger area only with self-contained breathing apparatus.

Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### **Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet.

Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **6 - ACCIDENTAL RELEASE MEASURES**

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

Use personal protective equipment. Avoid breathing vapors, mist or gas. Remove all sources of ignition.

Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations.

Vapors can accumulate in low areas.

Local authorities should be advised if significant spillages cannot be contained.

### **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.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

## **7 - HANDLING AND STORAGE**

### **Personal precautions**

#### **Safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Do not swallow.

Ensure adequate ventilation. Wash thoroughly after handling.

Keep away from sources of ignition - No smoking. Keep away from fire, sparks, and heated surfaces.

Take measures to prevent the build up of electrostatic charge.

#### **Advice on general occupational hygiene**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Remove contaminated clothing and protective equipment before entering eating areas.

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

Keep container tightly closed in a dry and well-ventilated place. Store locked up.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store class (TRGS 510): Combustible liquids.

### **Other advice**

No further information available.

## **8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

### **Personal protective equipment**

#### **Appropriate engineering controls**

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

#### **Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing.  
Appropriate techniques should be used to remove potentially contaminated clothing.  
Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

#### **Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell).

#### **Body protection**

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

#### **Respiratory protection**

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds  
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### **Control of environmental exposure**

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

## **9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**

Form: liquid

Color: colorless

Odor: no data available

Odor threshold: no data available

**Safety data**

pH: no data available

Melting point/freezing point: -60°C

Initial boiling point and boiling range: 280°C at 1013 hPa

Flash point: 132.5°C - closed cup

Relative density: no data available

Viscosity: Kinematic no data available

Ignition temperature: no data available

Lower explosion limit: no data available

Upper explosion limit: no data available

Partition coefficient(n-octanol/water): log Pow: 3.72 at 25°C

Water solubility: no data available

VOC (w/w): no data available

**10 - STABILITY AND REACTIVITY****Storage stability**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Reactivity**

No data available.

**Possibility of hazardous reactions**

No data available.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible materials**

No data available.

**Hazardous decomposition products**

In the event of fire: see section 5.

**11 - TOXICOLOGICAL INFORMATION****Primary routes of exposure**

No data available.

**Acute toxicity: HARMFUL IF INHALED.**

LD50 Oral - Rat - male and female - > 5,000 mg/kg (US-EPA)

LC50 Inhalation - Rat - male and female - 4 h - > 5.14 mg/l - aerosol (OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - > 5,000 mg/kg (US-EPA) No data available

**Skin corrosion / irritation**

Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)

**Serious eye damage / eye irritation**

Eyes - Rabbit Result: No eye irritation (US-EPA)

**Respiratory or skin sensitization**

Buehler Test - Guinea pig Result: positive (OECD Test Guideline 406)

**Germ cell mutagenicity**

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster lung cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

**Carcinogenicity****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available.

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

No data available.

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available.

**Aspiration hazard**

No data available.

**Subacute to chronic toxicity**

No data available.

**Additional Information**

Repeated dose toxicity - Rat - male - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 170 mg/kg

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12 - ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - > 12.6 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 24 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata - 14.3 mg/l - 72 h (OECD Test Guideline 201)

### Persistence and degradability

No data available.

### Biodegradability

aerobic - Exposure time 28 d Result: 70 - 80 % - Readily biodegradable. (OECD Test Guideline 301B) Remarks: (ECHA)

### Bioaccumulative potential

No data available.

### Mobility in soil

No data available.

### PBT and vPvB conclusion

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

### Other adverse effects

No data available.

## 13 - DISPOSAL CONSIDERATIONS

### Product

Waste material must be disposed of in accordance with the national and local regulations.  
Leave chemicals in original containers. No mixing with other waste.  
Handle uncleaned containers like the product itself.

### Contaminated packaging

Dispose of as unused product.

## 14 - TRANSPORT INFORMATION

### IMDG

Not a dangerous goods

### IATA

Not a dangerous goods

## 15 - REGULATORY INFORMATION

### Safety, health and environmental regulations

No data available.

**Safety assessment**

No chemical safety assessment.

**16 - OTHER INFORMATION****Copyright Notice**

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