

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

Product name : Diphenyl(2,4,6-trimethylbenzoyl)phosphine Oxide  
CAS No. : 75980-60-8

**Manufacturer or supplier's details**

Company : Heynova (Shanghai) New Material Technology CO., Ltd  
Address : Building 3, No. 690 Bibo Road, Pudong New Area, Shanghai, China  
Telephone : +86-178-2110-2608  
E-mail address : info@heynovachem.com

## 2. HAZARDS IDENTIFICATION

**Emergency Overview**

**Appearance** : Solid form  
**Color** : yellow - green  
May cause an allergic skin reaction. May damage fertility or the unborn child. Toxic to aquatic life with long lasting effects.

**GHS Classification**

Skin sensitization : Sub-category 1B  
Reproductive toxicity : Category 1B  
Short-term (acute) aquatic hazard : Category 2  
Long-term (chronic) aquatic hazard : Category 2

**GHS label elements**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H317 May cause an allergic skin reaction.  
H360 May damage fertility or the unborn child.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing dust.  
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.

**Response:**

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

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

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

P362 + P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

**Storage:**

P405 Store locked up.

**Disposal:**

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

**Physical and chemical hazards**

Not classified based on available information.

**Health hazards**

May cause an allergic skin reaction. May damage fertility or the unborn child.

**Environmental hazards**

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

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

None known.

---

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

**Components**

Chemical name	CAS RN	Concentration (% w/w)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine Oxide	75980-60-8	>= 98 -<= 100

---

**4. FIRST AID MEASURES**

- If inhaled : Remove person to fresh air and keep comfortable for breathing.  
Get medical advice/ attention.
- In case of skin contact : Take off all contaminated clothing immediately.  
Wash off with soap and plenty of water.  
Get medical advice/ attention.
- In case of eye contact : Rinse with plenty of water.  
If easy to do, remove contact lens, if worn.  
Get medical advice/ attention.
- If swallowed : Get medical advice/ attention.  
Rinse mouth.
- Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
May damage fertility or the unborn child.

---

**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Dry powder, Foam, Water spray, Carbon dioxide (CO2)
- Specific hazards during fire fighting : Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Immediately evacuate personnel to safe areas.  
 Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for fire-fighters : Use personal protective equipment.

---

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Wear suitable protective equipment.  
 Keep people away from and upwind of spill/leak.  
 Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

Environmental precautions : Should not be released into the environment.

Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.

---

## 7. HANDLING AND STORAGE

### Handling

Technical measures : Prevent dispersion of dust.

Local/Total ventilation : Ensure adequate ventilation.  
 Handle product only in closed system or provide appropriate exhaust ventilation at machinery.  
 Use a local exhaust ventilation.

Advice on safe handling : Avoid contact with skin, eyes and clothing.  
 Wear personal protective equipment.  
 Wash hands and face thoroughly after handling.

Avoidance of contact : Oxidizing agents

### Storage

Conditions for safe storage : Keep container tightly closed.  
 Store in a cool and shaded area.  
 Store locked up.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : Install a closed system or local exhaust.  
 Also install safety shower and eye bath.

### Personal protective equipment

Respiratory protection : Dustproof gas mask  
 Self-contained breathing apparatus

Eye/face protection : Safety glasses  
 Safety goggles  
 Face-shield

Skin and body protection : Impervious protective clothing

Hand protection : Impervious gloves

\*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Color	:	yellow - green
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	93 °C
Boiling point/boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	soluble Solvent: Methanol
Partition coefficient: n-octanol/water (log value)	:	3.1
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Molecular weight	:	348.38 g/mol

---

## 10. STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None under normal processing.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Oxides of phosphorus

---

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

Not classified due to lack of data.

**Skin corrosion/irritation**

Not classified due to lack of data.

**Serious eye damage/eye irritation**

Not classified due to lack of data.

**Respiratory or skin sensitization****Skin sensitization**

May cause an allergic skin reaction.

**Respiratory sensitization**

Not classified due to lack of data.

**Product:**

Assessment : The product is a skin sensitizer, sub-category 1B.

**Components:****Diphenyl(2,4,6-trimethylbenzoyl)phosphine Oxide:**

Assessment : The product is a skin sensitizer, sub-category 1B.

**Germ cell mutagenicity**

Not classified due to lack of data.

**Carcinogenicity**

Not classified due to lack of data.

**Reproductive toxicity**

May damage fertility or the unborn child.

**Product:**

Reproductive toxicity - Assessment : Presumed human reproductive toxicant

**Components:****Diphenyl(2,4,6-trimethylbenzoyl)phosphine Oxide:**

Reproductive toxicity - Assessment : Presumed human reproductive toxicant

**STOT-single exposure**

Not classified due to lack of data.

**STOT-repeated exposure**

Not classified due to lack of data.

**Repeated dose toxicity** : No information available.

**Aspiration toxicity**

Not classified due to lack of data.

**RTECS No.** : SZ0395000 (Diphenyl(2,4,6-trimethylbenzoyl)phosphine Oxide)

---

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

#### Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

#### Components:

#### Diphenyl(2,4,6-trimethylbenzoyl)phosphine Oxide:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 1.4 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3.53 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 2.01 mg/l  
Exposure time: 72 h

#### Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

#### Persistence and degradability

No data available

#### Bioaccumulative potential

#### Components:

#### Diphenyl(2,4,6-trimethylbenzoyl)phosphine Oxide:

Bioaccumulation : Bioconcentration factor (BCF): 58

Partition coefficient: n-octanol/water (log value) : 3.1

#### Mobility in soil

No data available

#### Other adverse effects

No data available

---

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Disposal in accordance with local and national regulations.  
Entrust disposal to a licensed waste disposal company.

Contaminated packaging : Disposal in accordance with local and national regulations.  
Before disposal of used container, remove contents completely.

---

## 14. TRANSPORT INFORMATION

### International Regulations

IATA-DGR

UN/ID No. : UN 3077  
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
Class : 9  
Packing group : III

**IMDG-Code**

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
Class : 9  
Packing group : III  
EmS Code : F-A, S-F

**Domestic regulation****GB 6944/12268**

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
Class : 9  
Packing group : III

---

**15. REGULATORY INFORMATION****The ingredients of this product are reported in the following inventories:**

CH BAGREG : On the inventory, or in compliance with the inventory  
TSCA : All substances listed as active on the TSCA inventory  
AIRC : On the inventory, or in compliance with the inventory  
DSL : All components of this product are on the Canadian DSL  
  
ENCS : On the inventory, or in compliance with the inventory  
ISHL : On the inventory, or in compliance with the inventory  
KECI : On the inventory, or in compliance with the inventory  
PICCS : On the inventory, or in compliance with the inventory  
IECSC : On the inventory, or in compliance with the inventory  
NZIoC : Not in compliance with the inventory  
TECI : On the inventory, or in compliance with the inventory

---

**16. OTHER INFORMATION**

Revision Date : 2025/01/22  
Date format : yyyy/mm/dd

**Disclaimer**

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.