

Taian Green Industry Co., Ltd.

Tel: 86-156-6659-0861

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Web: www.taiangreenindustry.com

Safety Data Sheet

UV Photoinitiator TPO-L

Section 1 - Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name: UV Photoinitiator TPO-L

CAS No. : 84434-11-7

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

Product Uses To be used only for scientific research and development. Not for use in humans or animals.

1.3 Supplier identifier:

Company name: Taian Green Industry Co., Ltd

Address: Room921, Building2, Dream Valley E-commerce Industrial Park,
Lingshan Street, Taishan District, Taian City, Shandong Province,
China

Postcode: 271000

E-mail: greenindustry@163.com

Telephone: +86 156 6659 0861

1.4 Emergency telephone:

Emergency Phone #: +86 156 6659 0861

Section 2 - Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The substance is classified as hazardous in the Annex VI of Regulation (EC) No. 1272/2008 as follows:

Sin Sens. 1B: H317

Aquatic Chronic 2: H411

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008



Pictogram:

Signal word: Warning

Hazard-determining components of labelling contains: -

Hazard statements: H411, H317

Precautionary statements: P273, P391, P261, P302+P352, P333+P313, P362+P364

Additional labelling: -

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2.3 Other hazards

PBT assessment: The substance is not PBT/vPvB.

Section 3 - Composition/information on ingredients

3.1 Substances

Formula: C₁₈H₂₁O₃P

Molecular weight: 316.33g/mol

| Component | Classification | Concentration |
|--|----------------|---------------|
| UV Photoinitiator TPO-L | | |
| CAS No. 84434-11-7 EC No. 282-810-6 | - | ≤100% |

3.2 Mixtures

Not a mixture.

Section 4 - First aid measures

4.1 Description of first aid measures

General advice

If medical attention is required, show this safety data sheet to the doctor.

If inhaled

If inhaled, move person to fresh air. If not breathing, give artificial respiration and consult a physician.

In case of skin contact

Wash affected area with soap and water. Consult a physician if any exposure symptoms are observed.

In case of eye contact

Immediately rinse eyes with plenty of water for at least 15 minutes. Consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention.

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

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

5.2 Special hazards arising from the substance or mixture

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Carbon oxides, phosphorous oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

Section 6 - Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Breathing protection required.

6.2 Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

6.3 Methods and materials for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

6.4 Reference to other sections

See sections 8 and 13.

Section 7 - Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Take precautionary measures against static discharges.

Requirements for storage rooms and vessels

Keep container tightly closed and dry; store in a cool place. Protect contents from the effects of light.

7.3 Specific end uses

For scientific research and development only. Not for use in humans or animals.

Section 8 - Exposure controls/personal protection

8.1 Control parameters

Contains no components with established occupation exposure limits.

8.2 Exposure controls

Appropriate engineering controls

A laboratory fumehood or other appropriate form of local exhaust ventilation should be used to avoid exposure.

Personal Protective Equipment

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All recommendations below are advisory in nature and a risk assessment should be performed by the employer/enduser prior to use of this product. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.

Eye/Face Protection

Safety goggles or face shield. All equipment should have been tested and approved under appropriate standards, such as NIOSH (US), CSA (Canada), or EN 166 (EU).

Skin Protection

Gloves should be used when handling this material. Gloves are to be inspected prior to use. Contaminated gloves are to be removed using proper glove removal technique so that the outer surface of the glove does not contact bare skin. Dispose of contaminated gloves after use in compliance with good laboratory practices and local requirements.

Gloves used for incidental exposures (splash protection) should be designated as "chemical resistant" by EU standard EN 374 with the resistance codes corresponding to the anticipated use of the material. Unrated gloves are not recommended.

Suggested gloves: AnsellPro Sol-Vex nitrile gloves style 37-175, 15 mil thickness.

Penetration time has not been determined.

Gloves used for prolonged direct exposure (immersion) should be designated "chemical resistant" as per EN 734 with the resistance codes corresponding to the anticipated use of the material. Suggested gloves: AnsellPro Viton/Butyl gloves style 38-612, 4/8 mil thickness.

Penetration time has not been determined.

These recommendations may not apply if the material is mixed with any other chemical, or dissolved into a solution. A risk assessment must be performed to ensure the gloves will still offer acceptable protection.

Body Protection

Fire resistant (Nomex) lab coat or coveralls.

Respiratory Protection

Recommended respirators are NIOSH-approved N100 or CEN-approved FFP3 particulate respirators. These are to be only used as a backup to local exhaust ventilation or other engineering controls. If the respirator is the only means of protection, a full-face supplied air respirator must be used.

Section 9 - Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance Light yellow liquid

Odour No data available

Odour Threshold No data available

pH No data available

Melting Point/Freezing Point -12°C at 101.3 kPa

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Initial Boiling Point/Boiling Range 257.4°C at 1013.3 hPa
Flash point 144 °C at 1013.25 hPa (closed cup; ISO 2719:2002)
Evaporation Rate No data available
Flammability (Solid/Gas) No data available
Upper/Lower Flammability/Explosive Limits No data available
Vapour Pressure No data available
Vapour Density No data available
Relative Density 1.133 g/cm³ at 20°C
Solubility Chloroform (Slightly), Ethyl Acetate (Slightly)
Partition Coefficient: Log Kow: 2.91 at 25°C
Auto-Ignition Temperature 423°C at 1013.25 hPa
Decomposition Temperature No data available
Viscosity 1483 mPa_s (20°C)
Explosive Properties No data available
Oxidizing Properties No data available

9.2 Other safety information

No data available

Section 10 - Stability and reactivity

10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2 Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3 Possibility of hazardous reactions

Carbon oxides.

10.4 Conditions to avoid

Keep container tightly closed and dry; store in a cool place. Protect contents from the effects of light.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: See section 5. Other decomposition products: No data available.

Section 11 - Toxicological information

11.1 Information on toxicological effects

A) Acute Toxicity

Oral LD50: No data available.

Inhalation LC50: No data available.

Dermal LD50: No data available.

B) Skin Corrosion/Irritation Moderate skin irritant.

C) Serious Eye Damage/Irritation Moderate eye irritant.

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D) Respiratory or Skin Sensitization No data available

E) Germ Cell Mutagenicity No data available

F) Carcinogenicity No data available

G) Reproductive Toxicity/Teratogenicity No data available

H) Single Target Organ Toxicity - Single Exposure Moderate respiratory tract irritation.

I) Single Target Organ Toxicity - Repeated Exposure No data available

J) Aspiration Hazard No data available

K) Potential Health Effects and Routes of Exposure

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

Harmful if swallowed.

Skin

May be harmful if absorbed through skin. Causes serious skin irritation.

Eyes

Causes eye irritation.

L) Signs and Symptoms of Exposure

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or section 11. To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated.

M) Additional Information

RTECS: Not listed

Section 12 - Ecological information

12.1 Toxicity

Acute toxicity to fish:

LC50 (48h): 1.89 mg/L (Danio rerio; OECD 203)

Acute toxicity to aquatic invertebrates:

No specific information

Acute toxicity to aquatic plants:

EC50(72h): 1.01 mg/L (Desmodium subspicatus; EU Method C.3)

Chronic toxicity to fish: No specific information

Chronic toxicity to aquatic invertebrates: No specific information

Chronic toxicity to aquatic plants: No specific information

Toxicity to aquatic micro-organisms: EC50 (180min): >1000 mg/L (OECD 209)

Sediment toxicity: No specific information

Terrestrial toxicity: No specific information

12.2 Persistence and degradability

Biodegradation:

Ready biodegradability: not readily biodegradable (<10% after 28d) (OECD 301 F)

Abiotic degradation:

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Hydrolysis: DT50: 114h at 30°C (pH 7) (EU Method C.7)

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water: Log Kow: 2.91 at 25°C

Bioconcentration factor (BCF): No specific information

12.4 Mobility in soil

Surface tension: Not surface active

Adsorption/Desorption: log Koc: 3.37 at 26°C (OECD 121)

12.5 Results of PBT and vPvB assessment

The substance is not PBT/vPvB.

12.6 Other adverse effects

No data available

Section 13 - Disposal considerations

13.1 Waste treatment methods

Product

Product may be burned in an incinerator equipped with afterburner and scrubber. Excess and expired materials are to be offered to a licensed hazardous material disposal company. Ensure that all Federal and Local regulations regarding the disposal and destruction of this material are followed.

Contaminated Packaging

Dispose of as above.

Other Considerations

Product is not to be disposed of in sanitary sewers, storm sewers, or landfills.

Section 14 - Transport information

14.1 UN number

ADR/RID: 3082

IMDG: 3082

IATA: 3082

14.2 UN proper shipping name

AND(R)/RID

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate)

IMDG-Code / ICAO-TI / IATA-DGR

9

14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: YES

IMDG: YES

IATA: YES

Marine pollutant: YES

14.6 Special precautions for user

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No data available

Section 15 - Regulatory information

This safety data sheet complies with the requirements of WHMIS (Canada), OSHA 1910.1200 (US), and EU Regulation EC No. 1907/2006 (European Union).

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Canada

DSL/NDSL Status: This product is not listed on the Canadian DSL/NDSL.

United States

TSCA Status: This product is not listed on the US EPA TSCA.

European Union

ECHA Status: This product or a component is registered with the EU ECHA.

15.2 Chemical Safety Assessment

No data available

Section 16 - Further information

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