

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-20

Print Date: 2025-09-26

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

1.1 Product identifiers

Product name : Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Product Number : T107643
Brand : aladdin
CAS-No. : 75980-60-8

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)

Skin allergy (Category 1), H317

Reproductive toxicity (Category 2), H361

Acute (short-term) aquatic hazard (Category 2), H401

Long term aquatic hazard (Category 2), H411

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

H361f	Suspected of damaging fertility
Precautionary statement(s)	
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.
P203	Obtain, read and follow all safety instructions before use.
P318	if exposed or concerned, get medical advice.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide;TPO ; 2,4,6-Trimethylbenzoylphenyl phosphinate ; (Diphenylphosphoryl)(mesityl)methanone ; (2,4,6-Trimethylbenzoyl)diphenylphosphine oxide
Formula	: C22H21O2P
Molecular weight	: 348.37
CAS No.	: 75980-60-8
EC-NO.	: 278-355-8

Component	Classification	Concentration
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	no data available	≥97%

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

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

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

In case of skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

In case of eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

If swallowed

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

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 dry chemical, carbon dioxide or alcohol-resistant foam.

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxide Phosphorus oxide Flammable Hazardous gases or vapours may be generated in case of fire

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

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Operators should be specially trained and strictly abide by the operating procedures. Operation and disposal should be carried out in a place with local ventilation or general ventilation facilities. Avoid eye and skin contact and avoid breathing vapor. See Section 8 for personal protective measures. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled, and there should be a grounding device to prevent the accumulation of static electricity. Avoid contact with incompatible substances such as oxidizing agents (see section 10 for incompatible substances). When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Empty containers may be harmful residues. Wash hands after use and prohibit eating or drinking in the workplace. Equipped with the corresponding variety and quantity of fire fighting equipment and leakage emer

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool and ventilated warehouse.

7.3 Specific end use(s)

no data available

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	form: powder, crystals, and/or chunks color: white to yellow
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	93°C
f) Initial boiling point and boiling range	no data available
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	1.17
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

9.2 Other safety information

no data available

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

May react violently with: Strong oxidant

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - Male and Female ->5000 mg/kg

(OECD Test Guideline 401)

Inhalation: no data

LD50 percutaneous - rats - male and female ->2000 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit Results: No skin irritation - 24 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eye rabbit result: no eye irritation (Draize Test) Remarks: (ECHA)

Respiratory or skin sensitisation

Local limp node assay (LLNA) - mouse result: positive (OECD Test Guideline 429)

Germ cell mutagenicity

Test type: mutagenicity (mammalian cell test): chromosome mutation is negative Test system: Chinese hamster lung cell metabolic activation: no metabolic activation Method: OECD Test Guideline 473 Result: negative test type: in vitro mammalian cell gene mutation test Test system: Chinese hamster lung cell metabolic activation: with or without metabolic activation Method: OECD Test Guideline 476 Result: negative test type: Ames Test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: With or without metabolic activation Method: OECD Test Guideline 471 Result: Negative

Carcinogenicity

no data available

Reproductive toxicity

Suspected of causing harm to fertility

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

no data available

Additional Information

Repeated exposure toxicity - rats - male and female - oral - 90 days - level of no harmful effect observed - 100 mg/kg - observed

Minimum level of harmful effect - 300 mg/kg

To the best of our knowledge, this chemical, physical and toxic property has not been completely studied.

SECTION 12: Ecological information

12.1 Toxicity

Semi static test of toxicity to fish LC50 - Cyprinus carpio (carp) - 1.4 mg/l - 96 h

(OECD Test Guideline 203)

No ridge for Daphnia magna and other aquatic animals

Toxicity of vertebrates

Static test EC50 - Daphnia magna - 3.53 mg/l - 48 h

(OECD Test Guideline 202)

Static toxicity test on algae ErC50 - Pseudokirchneriella subcapitata (green algae) ->2.01 mg/l - 72 h

(OECD Test Guideline 201)

Static test of toxicity to bacteria EC50 - activated sludge ->1000 mg/l - 3 h

(OECD Test Guideline 209)

Remarks: (exceeding the upper limit of solubility of the test substance)

12.2 Persistence and degradability

Aerobic - exposure time 28 days Results: 0 - 10% - not easy to rapidly biodegrade. (OECD Test Guideline 301F)

12.3 Bioaccumulative potential

Cyprinus carpio - 56 d At 25 ° C - 0.01 mg/l (diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide) Bioconcentration factor (BCF): 18 - 22

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur.

Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 3077

Packing group: III

Class: 9

Proper shipping name: Solid substances harmful to the environment, not

Reportable Quantity(RQ): no data available

Poison Inhalation Hazard: no data available

otherwise specified (diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide)

Environmental Hazards: yes

IMDG

UN number: 3077

Packing group: III

EMS-No: no data available

Proper shipping name: Solid substances harmful to the environment, not otherwise specified (diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide)

IATA

UN number: 3077

Packing group: III

Class: 9

Proper shipping name: Solid substances harmful to the environment, not otherwise specified (diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide)

SECTION 15: Regulatory information

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

SECTION 16: Other information

Prepared By

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

Email: QualityAssurance@aladdinsci.com

Creation Date

20-Dec-2022

Revision Date

20-Sep-2025

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Print Date

26-Sep-2025

Revision Summary

SDS sections updated v1

Disclaimer

Copyright Aladdin Co. Ltd. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aladdin Co. Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.