

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 01 Jun 2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

1.1. Catalog No.:

688081

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Skin sensitization (Category 1), H317
Reproductive toxicity (Category 2), H361f
Long-term (chronic) aquatic hazard (Category 2), H411

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram Signal word Warning
Hazard statement(s)

H317 May cause an allergic skin reaction.
H361f Suspected of damaging fertility.
H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s)
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements
none

Reduced Labeling (<= 125 ml)
Pictogram Signal word Warning
Hazard statement(s)
H317 May cause an allergic skin reaction.
H361f Suspected of damaging fertility.
Precautionary statement(s)
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements
none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Formula : C22H21O2P
Molecular weight : 348,37 g/mol CAS-No. : 75980-60-8
EC-No. : 278-355-8
Index-No. : 015-203-00-X
Component Classification Concentration
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
CAS-No.
EC-No.
Index-No.
75980-60-8
278-355-8
015-203-00-X
Skin Sens. 1; Repr. 2;
Aquatic Chronic 2; H317,
H361f, H411
<= 100 %

3.1.1. Formula

C22H21O2P

3.1.2. Molecular Weight (g/mol)

348.37

3.1.3. CAS-No.

75980-60-8

4. FIRST AID MEASURES

4.1 Description of first-aid measures

No data available

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

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

No data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Oxides of phosphorus

Combustible.

5.3 Advice for firefighters

No data available

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

6.2 Environmental precautions

No data available

6.3 Methods and materials for containment and cleaning up

No data available

6.4 Reference to other sections

For disposal see section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Light sensitive.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: solid

b) Odor weak characteristic odour

c) Odor Threshold Do not attempt to smell the product as it is hazardous.

d) pH 6,4 - 6,9 at 20 °C

6,4 - 6,9 at 20 °C

e) Melting

point/freezing point

Melting point/range: 88 - 92 °C - lit.

f) Initial boiling point

and boiling range

No data available

g) Flash point Not applicable/Not applicable

h) Evaporation rate No data available

i) Flammability (solid,

gas)

No data available

j) Upper/lower

flammability or

explosive limits

No data available

k) Vapor pressure < 0,01 hPa at 25 °C

l) Vapor density No data available

m) Relative density 1,218 at 20 °C - OECD Test Guideline 109

n) Water solubility ca.0,011 g/l at 20 °C - OECD Test Guideline 105

o) Partition coefficient:

n-octanol/water

log Pow: 3,1 at 23 °C - Bioaccumulation is not expected.

p) Autoignition

temperature

does not ignite q) Decomposition

temperature

No data available

r) Viscosity Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

- 10.1 Reactivity
No data available
- 10.2 Chemical stability
No data available
- 10.3 Possibility of hazardous reactions
No data available
- 10.4 Conditions to avoid
No data available
- 10.5 Incompatible materials
Strong oxidizing agents
- 10.6 Hazardous decomposition products
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
 - Acute toxicity
 - LD50 Oral - Rat - male and female - > 5.000 mg/kg
(OECD Test Guideline 401)
 - LD50 Dermal Dermal - Rat - male and female - > 2.000 mg/kg
(OECD Test Guideline 402)
 - Skin corrosion/irritation
 - Skin - Rabbit
 - Result: No skin irritation - 24 h
 - Remarks:
(ECHA)
 - Serious eye damage/eye irritation
 - Eyes - Rabbit
 - Result: No eye irritation
(Draize Test)
 - Respiratory or skin sensitization
 - Local lymph node assay (LLNA) - Mouse Result: positive
(OECD Test Guideline 429)
 - Germ cell mutagenicity
 - Mutagenicity (mammal cell test): chromosome aberration.
 - Result: negative
 - In vitro mammalian cell gene mutation test
 - Result: negative
 - Ames test
 - Escherichia coli/Salmonella typhimurium
 - Result: negative
 - Carcinogenicity
 - IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
 - Reproductive toxicity
 - Suspected of damaging fertility.
 - Specific target organ toxicity - single exposure
 - No data available
 - Specific target organ toxicity - repeated exposure
 - No data available
 - Aspiration hazard
 - No data available
- 11.2 Additional Information
Not available
- To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish semi-static test LC50 - *Oryzias latipes* (Orange-red killifish) - 6,53 mg/l - 48 h

Remarks: (ECHA)
Toxicity to daphnia
and other aquatic
invertebrates

static test EC50 - *Daphnia magna* (Water flea) - 3,53 mg/l - 48 h
(OECD Test Guideline 202)

Toxicity to algae static test EC10 - *Pseudokirchneriella subcapitata* (green algae) - 1,56 mg/l - 72 h

(OECD Test Guideline 201)

static test EC50 - *Pseudokirchneriella subcapitata* (green algae) - > 2,01 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)

Remarks: (above the solubility limit in the test medium)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 0 - 10 % - Not readily biodegradable.

(OECD Test Guideline 301F)

12.3 Bioaccumulative potential

Bioaccumulation *Cyprinus carpio* (Carp) - 56 d

at 25 °C (Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

Bioconcentration factor (BCF): 23 - 55

Remarks: (External MSDS)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

No data available

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

IATA: Environmentally hazardous substance, solid, n.o.s. (Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

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 Marine pollutant: yes IATA: yes

14.6 Special precautions for user

Further Information EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids. Packages smaller than or equal to 5 kg / L, not dangerous goods of

Class 9

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)

: Not applicable

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

: ENVIRONMENTAL HAZARDS

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

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. For lab use only!