Otto Chemie Pvt Ltd

An ISO 9001 : 2015 & GMP Certified Company
Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,
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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers
Product Name: Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide, 97%
Product Code: D 2178
CAS No: 75980-60-8

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number
Phone no. : + 91 98200 41841 (10 : 00 am – 06 : 00 pm)

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture

Skin sensitisation, (Sub-category 1B)	H317: May cause an allergic skin reaction.
Reproductive toxicity, (Category 1B)	H360FD: May damage fertility. May damage the unborn child.
Long-term (chronic) aquatic hazard, (Category 2)	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008

Pictogram	
Signal Word	Danger
Hazard Statements	
H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.
H411	Toxic to aquatic life with long lasting effects.
Precautionary Statements	
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face 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 Labelling (<= 125 ml)	
Pictogram	
Signal Word	Danger
Hazard Statements	
H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.
Precautionary Statements	
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

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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.
Ecological information:
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Toxicological information:
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients
3.1 Substances

Formula	: (CH3)3C6H2COP(O)(C6H5)2
Molecular weight	: 348,37 g/mol
CAS-No.	: 75980-60-8
EC-No.	: 278-355-8

Component	Classification	Concentration
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
CAS-No. 75980-60-8 EC-No. 278-355-8	Skin Sens. 1B; Repr. 1B; Aquatic Chronic 2; H317, H360FD, H411	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures
4.1 Description of first aid measures
General advice
Show this safety data sheet to the doctor in attendance.
If inhaled
After inhalation: fresh air. Call in physician.
In case of skin contact
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. Call in ophthalmologist. Remove contact lenses.
If swallowed
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
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
Water Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.
5.2 Special hazards arising from the substance or mixture
Carbon oxides
Oxides of phosphorus
Combustible.
Development of hazardous combustion gases or vapours possible in the event of fire.

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5.3 Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
5.4 Further information
Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.
6.2 Environmental precautions
Do not let product enter drains.
6.3 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 carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.
6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage
7.1 Precautions for safe handling
Advice on safe handling
Work under hood. Do not inhale substance/mixture.
Hygiene measures
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.
Light sensitive.
Storage class
Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects
7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Ingredients with workplace control parameters
8.2 Exposure controls
Personal protective equipment
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
Body Protection
protective clothing
Respiratory protection
required when dusts 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. Recommended Filter type: Filter type P3
The entrepeneur 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.
Control of environmental exposure
Do not let product enter drains.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state	Powder or crystals
b) Color	Light yellow
c) Odor	weak characteristic odour
d) Melting point/freezing point	Melting point/ range: 88 - 92 °C - lit.
e) Initial boiling point and boiling range	No data available
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	Not applicable
i) Autoignition temperature	> 400 °C at 1.013 hPa - Relative self-ignition temperature for solidsdoes not ignite
j) Decomposition temperature	No data available
k) pH	6,4 - 6,9 at 20 °C
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m) Water solubility	0,011 g/l at 20 °C - OECD Test Guideline 105- slightly soluble
n) Partition coefficient: n-octanol/water	log Pow: 3,1 at 23 °C - Bioaccumulation is not expected.
o) Vapor pressure	< 0,1 hPa at 20 °C
p) Density Relative density	1,218 g/cm3 at 20 °C - OECD Test Guideline 109 1,218 at 20 °C - OECD Test Guideline 109
q) Relative vapour density	
r) Particle characteristics	No data available

s) Explosive properties Not classified as explosive.
t) Oxidizing properties none
9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature) .
10.3 Possibility of hazardous reactions
Violent reactions possible with:
Strong oxidizing agents
10.4 Conditions to avoid
no information available
10.5 Incompatible materials
No data available
10.6 Hazardous decomposition products
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:
Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L.
Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

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Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: Ecological information

12.1 Toxicity
Toxicity to fish semi-static test LC50 - Cyprinus carpio (Carp) - 1,4 mg/l - 96 h
(OECD Test Guideline 203)
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 ErC50 - 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 - 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
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 Endocrine disrupting properties
Product:

Assessment	: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods
No data available

SECTION 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
Tunnel restriction code : (-)
Further information

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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
14.7 Maritime transport in bulk according to IMO instruments
Not applicable for product as supplied.

SECTION 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.
Authorisations and/or restrictions on use
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).
Diphenyl (2,4,6- trimethylbenzoyl) phosphine oxide
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.
E2 ENVIRONMENTAL HAZARDS
15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other Information
This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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