

Material Safety Data Sheet Diphenyl oxide

SECTION 1.1 – PRODUCT IDENTIFICATION

Product Name : Diphenyl Oxide
Molecular Formula : $(C_6H_5)_2O$
Molecular Weight : 170.21 g/mole
CAS No. : 101-84-8

SECTION: 1.2 – COMPANY IDENTIFICATION

Company Name: Indenta Chemicals (India) Pvt. Ltd.

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SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS#	% by Weight
Diphenyl oxide	101-84-8	100

SECTION 3: HAZARD IDENTIFICATION

3.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Chronic aquatic toxicity, Category 2, H411

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

Classification (67/548/EEC or 1999/45/EC)

N Dangerous for the environment R51/53

For the full text of the R-phrases mentioned in this Section, see Section 16.

3.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Pictogram

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation: fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

Nausea

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: FIRE AND EXPLOSION DATA

5.1 Extinguishing media

Suitable extinguishing media

Water, Carbon dioxide (CO₂), Foam, 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 **Combustible.**

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Special protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

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 vapours/aerosols or dusts.

Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

6.2 Environmental precautions

Do not empty into 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).

Depending on the state of matter, take up dry or with liquid-absorbent material.

Dispose of properly. Clean up affected area. Clean up affected area.

6.4 Reference to other sections

Indications about waste treatment see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling Observe label precautions.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions tightly closed.

Dry.

Recommended storage temperature see product label.

7.3 Specific end use(s)

No data available.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection

Safety glasses

Hand protection

full contact:

Glove material:	butyl- rubber
Glove thickness:	0.7 mm
Break through time:	> 480 min

splash contact:

Glove material:	butyl- rubber
Glove thickness:	0.7 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 898 Butoject® (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet (>,<) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Respiratory protection

required when dusts/vapours/aerosols are generated.

Recommended Filter type: Filter A-(P2)

The entrepreneur 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.

Environmental exposure controls

Do not empty into drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Form	solid
b) Colour	colourless
c) Odour	characteristic
d) Odour Threshold	No information available.
e) pH	No information available.
f) Melting point	24 - 27 °C
g) Boiling point/boiling range	259 °C at 1,013 hPa
h) Flash point	115 °C Method: c.c.
i) Evaporation rate	No information available.
j) Flammability (solid, gas)	No information available.
k) Lower explosion limit	0.8 %(V)
l) Upper explosion limit	1.5 %(V)
m) Vapour pressure	0.05 hPa at 20 °C
n) Relative vapour density	No information available.
o) Density	1.07 g/cm ³ at 20 °C
p) Relative density	No information available.

- q) **Water solubility** 0.018 g/l
at 25 °C
- r) **Partition coefficient:** log Pow: 4.21
noctanol/water (experimental)
(Lit.)Potential bioaccumula
- s) **Auto-ignition temperature** No information available.

9.2 Other safety information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Forms explosive mixtures with air on intense heating.

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:

Oxidizing agents, chlorosulfonic acid

10.4 Conditions to avoid

Strong heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.5 Incompatible materials

no information available

10.6 Hazardous decomposition products

Peroxides

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity

LD50 Rat: 2,450 mg/kg (RTECS)

Symptoms: Pain, Nausea

Acute inhalation toxicity

This information is not available.

Acute dermal toxicity

LD50 Rabbit: > 7,940 mg/kg (RTECS)

Skin irritation

Rabbit

Result: slight irritation (IUCLID)

Eye irritation

Rabbit

Result: slight irritation (IUCLID)

Sensitisation Human

experience

Result: negative (IUCLID)

Germ cell mutagenicity

Genotoxicity in vitro

Ames test

Result: negative (IUCLID)

Carcinogenicity

This information is not available.

Reproductive toxicity

This information is not available.

Teratogenicity

This information is not available.

Specific target organ toxicity - single exposure

This information is not available.

Specific target organ toxicity - repeated exposure

This information is not available.

Aspiration hazard

This information is not available.

11.2 Further information

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 Pimephales promelas (fathead minnow): 4 mg/l; 96 h
(ECOTOX Database)

Toxicity to bacteria microtox test EC50 Photobacterium phosphoreum: 3.64 mg/l;
30 min (Lit.)

12.2 Persistence and degradability

Biodegradability 82 %; 20 d
(IUCLID)
Readily biodegradable.

12.3 Bioaccumulative potential Partition coefficient: n-octanol/water log

Pow: 4.21 (experimental)
(Lit.) Potential bioaccumulation

12.4 Mobility in soil

Distribution among environmental compartments log Koc: 3.29
(IUCLID) High mobility of the substance in soil is not expected (log koc \geq 3).

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not
required/not conducted.

12.6 Other adverse effects

Additional ecological information
Discharge into the environment must be avoided.

SECTION 13: DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as
other national and local regulations. Leave chemicals in original containers. No mixing with other waste.
Handle uncleaned containers like the product itself.

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR/RID)

14.1 UN number UN 3077

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S. (DIPHENYLETHER)

14.3 Class 9

14.4 Packing group III
 14.5 Environmentally hazardous yes
 14.6 Special precautions for yes user
 Tunnel restriction code E
 Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9
 Inland waterway transport (ADN)
 Not relevant

Air transport (IATA)

14.1 UN number UN 3077
 14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
 N.O.S. (DIPHENYLETHER)
 14.3 Class 9
 14.4 Packing group III
 14.5 Environmentally hazardous yes
 14.6 Special precautions for no user

Sea transport (IMDG)

14.1 UN number UN 3077
 14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
 N.O.S. (DIPHENYLETHER)
 14.3 Class 9
 14.4 Packing group III
 14.5 Environmentally hazardous yes
 14.6 Special precautions for yes user
 EmS F-A S-F
 Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9
 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant

SECTION 15: OTHER REGULATORY INFORMATION

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

National legislation

Storage class 10 - 13

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: ADDITIONAL INFORMATION

This information is provided for documentation purposes only.

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