ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

BIPHENYL-D10

Revision Date:2026-05-31 Revision Number:1

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

Product identifier

Product name	: BIPHENYL-D10
CBnumber	: CB1336984
CAS	: 1486-01-7
Synonyms	: Biphenyl-d10

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

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Warning

Precautionary statements

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P302+P352 IF ON SKIN: wash with plenty of soap and water.

P273 Avoid release to the environment.

P271 Use only outdoors or in a well-ventilated area.

P264 Wash skin thouroughly after handling.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

Hazard statements

H410 Very toxic to aquatic life with long lasting effects

H335 May cause respiratory irritation

H319 Causes serious eye irritation

H315 Causes skin irritation

SECTION 3: Composition/information on ingredients

Substance

Product name	: BIPHENYL-D10
Synonyms	: Biphenyl-d10
CAS	: 1486-01-7
MF	: C12D10
MW	: 164.27

SECTION 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) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

4.4 Notes to physician

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

No data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible.

5.3 Advice for firefighters

No data available

SECTION 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.

SECTION 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

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

['Component', 'CAS-No.', 'Value', 'Control parameters', 'Basis']	['Perdeuteriobiphen yl', '1486-01-7', 'PC-TWA', '1.5 mg/m3', 'Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.']

8.2 Exposure controls

No data available

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

a) Physical state	Fine crystals and fragments
b) Color	light yellow
c) Odor	characteristic
d) Melting point/freezing point	Melting point/ range: ca.69 - 72 °C
e) Initial boiling point and boiling range	ca.255 °C at ca.1,013 hPa
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	Upper explosion limit: 5.8 %(V) Lower explosion limit: 0.6 %(V)
h) Flash point	ca.110 °C - closed cup
i) Autoignition temperature	No data available

j) Decomposition temperature	No data available
k) pH	ca.5.5
l) Viscosity	Viscosity, kinematic: No data available
	Viscosity, dynamic: No data available
m) Water solubility	ca.0.0075 g/l at ca.15 °C
n) Partition coefficient n-octanol/water	log Pow: 5.0
o) Vapor pressure	0.04 hPa at ca.20 °C
p) Density	ca.0.992 g/cm3
Relative density	0.992
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Chemical stability

No data available

10.2 Possibility of hazardous reactions

No data available

10.3 Conditions to avoid

No data available

10.4 Incompatible materials

Strong oxidizing agents

10.5 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 2,140 mg/kg

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Remarks: (RTECS)

The value is given in analogy to the following substances: biphenyl

Symptoms: mucosal irritations, Cough, Shortness of breath, Inhalation may lead to the formation of oedemas in the respiratory tract., Possible damages:, damage of respiratory tract

LD50 Dermal - Rabbit - > 5,010 mg/kg

Remarks: (RTECS)

The value is given in analogy to the following substances: biphenyl

Skin corrosion/irritation

Skin - Rabbit

Result: Severe irritations - 24 h (Draize Test)

Remarks: The value is given in analogy to the following substances: biphenyl

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Remarks: Causes serious eye irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

The value is given in analogy to the following substances: biphenyl

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative (OECD Test Guideline 406)

Remarks: The value is given in analogy to the following substances: biphenyl

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 476

Result: positive

Remarks: The value is given in analogy to the following substances: biphenyl

Test Type: Micronucleus test

Species: Mouse

Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

Remarks: The value is given in analogy to the following substances: biphenyl

Carcinogenicity

Classified based on available data. For more details, see section 2

Reproductive toxicity

Classified based on available data. For more details, see section 2

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Respiratory system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

The value is given in analogy to the following substances: biphenyl

Specific target organ toxicity - repeated exposure

Classified based on available data. For more details, see section 2

Aspiration hazard

Classified based on available data. For more details, see section 2

11.2 Additional Information

Liver injury may occur., Gastrointestinal disturbance

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Systemic effects:

The value is given in analogy to the following substances: biphenyl

After uptake:

The value is given in analogy to the following substances: biphenyl muscular weakness

Drowsiness

Diarrhea ataxia (impaired locomotor coordination)

The value is given in analogy to the following substances: biphenyl

After long-term exposure to the chemical:

The value is given in analogy to the following substances: biphenyl

Damage to:

The value is given in analogy to the following substances: biphenyl

Liver

Kidney

Cardiac

The value is given in analogy to the following substances: biphenyl

Other dangerous properties can not be excluded.

The value is given in analogy to the following substances: biphenyl

Handle in accordance with good industrial hygiene and safety practice.

The value is given in analogy to the following substances: biphenyl

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SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 3 mg/l - 96 h (OECD Test Guideline 203)

Remarks: The value is given in analogy to the following substances: biphenyl

Toxicity to daphnia flow-through test EC50 - Daphnia magna (Water flea) - 0.36 mg/l - and other aquatic 48 h invertebrates (US-EPA)

Remarks: The value is given in analogy to the following substances: biphenyl

Toxicity to flow-through test NOEC - Oncorhynchus mykiss (rainbow trout) - fish(Chronic toxicity) 0.229 mg/l - 87 d (OECD Test Guideline 210)

Remarks: The value is given in analogy to the following substances: biphenyl

Toxicity to daphnia flow-through test NOEC - Daphnia magna (Water flea) - 0.17 mg/l - and other aquatic 21 d invertebrates(Chronic (US-EPA) toxicity) Remarks: The value is given in analogy to the following substances: biphenyl

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 64.4 % - Readily biodegradable.

(OECD Test Guideline 301F)

Remarks: The value is given in analogy to the following substances: biphenyl

12.3 Bioaccumulative potential

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 4 d (Perdeuteriobiphenyl)

Bioconcentration factor (BCF): 1,900 (OECD Test Guideline 305)

Remarks: The value is given in analogy to the following substances: biphenyl

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Discharge into the environment must be avoided.

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-DGR: 3077

14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Perdeuteriobiphenyl)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Perdeuteriobiphenyl)

IATA-DGR: Environmentally hazardous substance, solid, n.o.s. (Perdeuteriobiphenyl)

14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA-DGR: 9

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA-DGR: III

14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA-DGR: yes

14.6 Special precautions for user

Based on chemical properties, choose appropriate tools and conditions of transport.

Transporting tools shall be equipped with appropriate and sufficient firefighting equipment and emergency leaking installations. If transporting by road, please go along the specified route.

14.7 Incompatible materials

Strong oxidizing agents

SECTION 15: Regulatory information

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

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Listed

Measures on the Environmental Administration of New Chemical Substances Registration

Registration/Notification number : B1A222232973

Downstream users need to comply with the conditions of safe use of the chemical, understand the environmental and health hazard and risk management measures identified on the SDS as well as the local/national regulations concerning the chemical.

Other regulations

Please pay attention on the waste treatment should also comply with local regulations requirement.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration