

SAFETY DATA SHEET

1. PRODUCT

1.1 Product identifiers

Name: PCB No 4

CAS-No.: 13029-08-8

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

Identified uses : Laboratory chemicals, Synthesis of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)


Specific target organ toxicity - repeated exposure (Category 2), H373

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

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

2.2 GHS Label elements, including precautionary statements

| | |
|----------------------------|--|
| Pictogram |  |
| Signal word | Warning |
| Hazard statement(s) | H373 May cause damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects. |
| Precautionary statement(s) | P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P273 Avoid release to the environment. P314 Get medical advice/ attention if you feel unwell. P391 Collect spillage. P501 Dispose of contents/ container to an approved waste disposal plant. |

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

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms: 2,2-Dichlorobiphenyl
2,2-PCB
Formula: $C_{12}H_8Cl_2$
Molecular weight: 223.1 g/mol
CAS-No.: 13029-08-8
EC-No.: 215-648-1

Hazardous components

| Component | Classification | Concentration |
|-----------------------|---|---------------|
| 2,2'-Dichlorobiphenyl | STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H373, H410 | <= 100 % |

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

4. FIRST AID MEASURES

4.1 Description of first aid measures

| |
|---|
| General advice |
| Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. |
| If inhaled |
| If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact |
| Wash off with soap and plenty of water. Consult a physician. |
| In case of eye contact |
| Flush eyes with water as a precaution. |
| If swallowed |
| Never give anything by mouth to an unconscious person. Rinse mouth with water. 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

4.2 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

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

Components with workplace control parameters

| Component | CAS-No. | Value | Control parameters | Basis |
|-----------------------|------------|-----------------------------------|----------------------------|--|
| 2,2'-Dichlorobiphenyl | 13029-08-8 | TWA | 0.001000 mg/m ³ | USA. NIOSH Recommended Exposure Limits |
| | Remarks | Potential Occupational Carcinogen | | |

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 | Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(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. |
| Body Protection | Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |
| Respiratory protection | For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| Control of environmental exposure | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|--|-------------------|
| Appearance | Form: solid |
| Odour | No data available |
| Odour Threshold | No data available |
| pH | No data available |
| Melting point/freezing point | No data available |
| Initial boiling point and boiling range | No data available |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Upper/lower flammability or explosive limits | No data available |

| | |
|--|-------------------|
| Vapour pressure | No data available |
| Vapour density | No data available |
| Relative density | No data available |
| Water solubility | No data available |
| Partition coefficient: n-octanol/water | log Pow: 4.97 |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| 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

Stable under recommended storage conditions.

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

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

| |
|--|
| Acute toxicity |
| No data available Inhalation: No data available Dermal: No data available No data available |
| Skin corrosion/irritation |
| No data available |
| Serious eye damage/eye irritation |
| No data available |
| Respiratory or skin sensitisation |
| No data available |
| Germ cell mutagenicity |
| No data available |
| Carcinogenicity |

| |
|---|
| <p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.</p> |
| <p>Reproductive toxicity</p> <p>No data available Reproductive toxicity - Mouse - Oral Maternal Effects: Parturition. Reproductive toxicity - Mouse - Oral Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Reproductive toxicity - Mouse - Oral Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). No data available</p> |
| <p>Specific target organ toxicity -single exposure</p> <p>No data available</p> |
| <p>Specific target organ toxicity -repeated exposure</p> <p>May cause damage to organs through prolonged or repeated exposure.</p> |
| <p>Aspiration hazard</p> <p>No data available</p> |
| <p>Additional Information</p> <p>RTECS: DV3900000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence</p> |

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

12.3 Bioaccumulative potential

| | |
|-----------------|---|
| Bioaccumulation | <p>Oncorhynchus mykiss (rainbow trout) - 3 d - 10 µg/l Bioconcentration factor (BCF): 609 - 648</p> |
|-----------------|---|

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 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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|--|
| Product |
| Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. |
| Contaminated packaging |
| Dispose of as unused product. |

14. TRANSPORT INFORMATION

DOT (US)

UN number: 3432 Class: 9 Packing group: II
 Proper shipping name: Polychlorinated biphenyls, solid
 Marine pollutant: yes
 Poison Inhalation Hazard: No

IMDG

UN number: 3432 Class: 9 Packing group: II EMS-No: F-A, S-A
 Proper shipping name: POLYCHLORINATED BIPHENYLS, SOLID
 Marine pollutant: yes

IATA

UN number: 3432 Class: 9 Packing group: II
 Proper shipping name: Polychlorinated biphenyls, solid

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

| Component | CAS-No. | Revision Date |
|-----------------------|------------|---------------|
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 1989-08-11 |

New Jersey Right To Know Components

| Component | CAS-No. | Revision Date |
|-----------------------|------------|---------------|
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 1989-08-11 |

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

| Component | CAS-No. | Revision Date |
|-----------------------|------------|---------------|
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 2008-08-01 |

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

| Component | CAS-No. | Revision Date |
|-----------------------|------------|---------------|
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 2008-08-01 |

WARNING! This product contains a chemical known to the State of California to cause cancer.

| Component | CAS-No. | Revision Date |
|-----------------------|------------|---------------|
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 2008-08-01 |

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

| Component | CAS-No. | Revision Date |
|-----------------------|------------|---------------|
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 2008-08-01 |

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute Acute aquatic toxicity

Aquatic Chronic Chronic aquatic toxicity

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

STOT RE Specific target organ toxicity - repeated exposure

HMIS Rating

Health hazard: 0

Chronic Health Hazard: *

Flammability: 0

Physical Hazard 0

NFPA Rating

Health hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0
