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Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 31 May 2023

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

1.1. Product name:

4,4'-Dibromooctafluorobiphenyl

1.1. Catalog No.:

685270

1.2. Relevant identified uses of the substance or mixture

Identified uses: Laboratory chemical
R&D

1.3. Uses advised against:

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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
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

2.2. Label elements

2.2.1. Pictogram

2.2.2.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
· Signal word Warning
· Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.
· Precautionary statements
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· 2.3 Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

· 3.1 Chemical characterisation: Substances
· CAS No. Description
10386-84-2 4,4 -Dibromooctafluorobiphenyl
· Identification number(s) None
· EC number: 233-847-1
· RTECS: -

3.1.1. Formula

C12Br2F8

3.1.2. Molecular Weight (g/mol)

455.92

3.1.3. CAS-No.

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10386-84-2

4. FIRST AID MEASURES

· 4.1 Description of first aid measures
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing: Rinse mouth. Do not induce vomiting.
· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
· 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. FIRE-FIGHTING MEASURES

· 5.1 Extinguishing media
· Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
· 5.3 Advice for firefighters
· Protective equipment: Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

· 6.1 Personal precautions, protective equipment and emergency procedures
Mount respiratory protective device.
· 6.2 Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· 6.3 Methods and material for containment and cleaning up:
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
· 6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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.
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Storage class (TRGS 510): 13: Non Combustible Solids
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

· Additional information about design of technical facilities: No further data; see item 7.
· 8.1 Control parameters
· Ingredients with limit values that require monitoring at the workplace: Not required.
· Additional information: Lists used were valid at the time of SDS preparation.
· 8.2 Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
· Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
· Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374
· Material of gloves
Fluorocarbon rubber (Viton)
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· Eye protection: Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:
Form: Crystalline powder
Colour: White
· Odour: Odourless
· Odour threshold: Not determined.
· pH-value: Not applicable.
· Change in condition
Melting point/freezing point: 113 - 115 °C
Initial boiling point and boiling range: Not determined.
· Flash point: Not applicable.
· Flammability (solid, gas): Not determined.
· Decomposition temperature: Not determined.
· Auto-ignition temperature: Not determined.
· Explosive properties: Not determined.
· Explosion limits:

Lower: Not determined.
Upper: Not determined.
· Vapour pressure: Not applicable.
· Density: Not determined.
· Relative density Not determined.
· Vapour density Not applicable.
· Evaporation rate Not applicable.
· Solubility in / Miscibility with
water: Not determined.
· Partition coefficient: n-octanol/water: Not determined.
· Viscosity:
Dynamic: Not applicable.
Kinematic: Not applicable.
· 9.2 Other information No further relevant information available.

10. STABILITY AND REACTIVITY

· 10.1 Reactivity Stable under normal conditions.
· 10.2 Chemical stability Stable under normal conditions.
· Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.
· 10.3 Possibility of hazardous reactions No dangerous reactions known.
· 10.4 Conditions to avoid
Heat.
Sources of ignition
· 10.5 Incompatible materials: Strong oxidizing agents.
· 10.6 Hazardous decomposition products:
Formation of toxic gases is possible during heating or in case of fire.
Carbon monoxide and carbon dioxide
Hydrogen fluoride (HF)
Hydrogen bromide

11. TOXICOLOGICAL INFORMATION

· 11.1 Information on toxicological effects
· Acute toxicity Based on available data, the classification criteria are not met.
· Primary irritant effect:
· Skin corrosion/irritation
Causes skin irritation.
· Serious eye damage/irritation
Causes serious eye irritation.
· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
· Germ cell mutagenicity Based on available data, the classification criteria are not met.
· Carcinogenicity Based on available data, the classification criteria are not met.
· Reproductive toxicity Based on available data, the classification criteria are not met.
· STOT-single exposure
May cause respiratory irritation.
· STOT-repeated exposure
May cause damage to organs through prolonged or repeated exposure.
· Aspiration hazard Based on available data, the classification criteria are not met.

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12. ECOLOGICAL INFORMATION

· 12.1 Toxicity
· Aquatic toxicity: No further relevant information available.
· 12.2 Persistence and degradability No further relevant information available.
· 12.3 Bioaccumulative potential No further relevant information available.
· 12.4 Mobility in soil No further relevant information available.
· Ecotoxicological effects:
· Remark: Very toxic for fish
· Additional ecological information:
· General notes:
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
· 12.5 Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.
· 12.6 Other adverse effects No further relevant information available.

13. DISPOSAL CONSIDERATIONS

· 13.1 Waste treatment methods
· Recommendation
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· European waste catalogue
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
· Uncleaned packaging:
· Recommendation: Dispose of in accordance with national regulations.

14. TRANSPORT INFORMATION

· 14.1 UN-Number
· ADR, IMDG, IATA UN3152
· ADR 3152 POLYHALOGENATED BIPHENYLS, SOLID, ENVIRONMENTALLY HAZARDOUS
· IMDG POLYHALOGENATED BIPHENYLS, SOLID, MARINE POLLUTANT
· IATA POLYHALOGENATED BIPHENYLS, SOLID
· 14.3 Transport hazard class(es)
· ADR, IMDG
· Class 9 Miscellaneous dangerous substances and articles.
· Label 9
· IATA
· Class 9 Miscellaneous dangerous substances and articles.
· Label 9
· 14.4 Packing group
· ADR, IMDG, IATA II
· 14.5 Environmental hazards: Environmentally hazardous substance, solid; Marine Pollutant
· Marine pollutant: Yes (P)
Symbol (fish and tree)
· Special marking (ADR): Symbol (fish and tree)
· 14.6 Special precautions for user Warning: Miscellaneous dangerous substances and articles.
· EMS Number: F-A,S-A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.
· Transport/Additional information:
· ADR

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· Limited quantities (LQ) 1 kg
· UN "Model Regulation": UN3152, POLYHALOGENATED BIPHENYLS, SOLID, ENVIRONMENTALLY HAZARDOUS, 9, II

15. REGULATORY INFORMATION

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been 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!