

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 05 Feb 2024

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

### 1.1. Product name:

D5-Chlorobenzene

### 1.1. Catalog No.:

691629

### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

Tel. +49 34291 3372-36  
Fax. +49 34291 3372-39  
contact@hpc-standards.com

### 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  
Flammable liquids (Category 3), H226  
Acute toxicity, Inhalation (Category 4), H332  
Skin irritation (Category 2), H315  
Long-term (chronic) aquatic hazard (Category 2), H411

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

2.2 Label elements  
Labelling according Regulation (EC) No 1272/2008 Pictogram Signal word Warning  
Hazard statement(s)

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H332 Harmful if inhaled.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273 Avoid release to the environment.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

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.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : Pentadeuteriochlorobenzene

Formula : C6D5Cl

Molecular weight : 117,59 g/mol

CAS-No. : 3114-55-4

EC-No. : 221-482-0

Component Classification Concentration

Chlorobenzene-D5

Flam. Liq. 3; Acute Tox. 4;

Skin Irrit. 2; Aquatic

Chronic 2; H226, H332,

H315, H411

<= 100 %

#### 3.1.1. Formula

C6CID5

#### 3.1.2. Molecular Weight (g/mol)

117.59

### 3.1.3. CAS-No.

3114-55-4

## 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

#### 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

Do NOT induce vomiting. 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

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).  
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 inhalation of vapor or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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. Containers which are

opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Store at room temperature. hygroscopic Store under inert gas.

### 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

Control parameters Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls Engineering Controls Showers Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment Eye/face protection Wear safety glasses with side shields (or goggles). Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. General Hygiene

Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid, clear

Color: colorless

b) Odor No data available

c) Odor Threshold No data available

d) pH No data available

e) Melting

point/freezing point

No data available

f) Initial boiling point

and boiling range

130 - 130,5 °C - lit.

g) Flash point 24,0 °C - closed cup

h) Evaporation rate No data available

i) Flammability (solid,

gas)

No data available  
j) Upper/lower  
flammability or  
explosive limits  
Upper explosion limit: 7,1 %(V)  
Lower explosion limit: 1,3 %(V)  
k) Vapor pressure No data available  
l) Vapor density No data available  
m) Relative density 1,157 g/mL at 25 °C  
n) Water solubility No data available  
o) Partition coefficient:  
n-octanol/water  
log Pow: 2,710  
p) Autoignition  
temperature  
No data available  
q) Decomposition  
temperature  
No data available  
r) Viscosity No data available  
s) Explosive properties No data available  
t) 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  
Heat, flames and sparks.  
10.5 Incompatible materials  
Oxidizing agents, 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  
Skin corrosion/irritation  
Serious eye damage/eye irritation  
No data available  
Respiratory or skin sensitization  
No data available  
Germ cell mutagenicity  
No data available  
Carcinogenicity  
No data available  
IARC: No ingredient of this product present at levels greater than or equal to 0.1% is  
identified as probable, possible or confirmed human carcinogen by IARC.  
Reproductive toxicity  
Specific target organ toxicity - single exposure

No data available  
Specific target organ toxicity - repeated exposure  
No data available  
Aspiration hazard  
No data available  
Additional Information  
RTECS: Not available  
Nausea, Dizziness, Headache, Liver injury may occur., Kidney injury may occur., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
Testes. -

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity  
No data available  
12.2 Persistence and degradability  
No data available  
12.3 Bioaccumulative potential  
No data available  
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 Other adverse effects  
Toxic to aquatic life with long lasting effects.  
No data available

## 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods  
Product  
Offer surplus and non-recyclable solutions to a licensed disposal company. 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.  
Contaminated packaging  
Dispose of as unused product.

## 14. TRANSPORT INFORMATION

14.1 UN number  
ADR/RID: 1134 IMDG: 1134 IATA: 1134  
14.2 UN proper shipping name  
ADR/RID: CHLOROBENZENE  
IMDG: CHLOROBENZENE  
IATA: Chlorobenzene  
14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3  
14.4 Packaging group  
ADR/RID: III IMDG: III IATA: III  
14.5 Environmental hazards  
ADR/RID: yes IMDG Marine pollutant: yes IATA: no 14.6 Special precautions for user  
No data available

## 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.  
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)  
:  
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)  
:  
15.2 Chemical Safety Assessment  
For this product a chemical safety assessment was not 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!