



# SAFETY DATA SHEET

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) (OSHA HCS)

## SECTION 1. IDENTIFICATION

Product name : 1,4-Dichlorobenzene  
Product code : D0687

### Manufacturer or supplier's details

Company name of supplier : TCI America  
Address : 9211 N. Harborside Street Portland, OR 97203 U.S.A.  
Telephone : +1-800-4238616/+1-503-2831681  
Telefax : +1-888-5201075/+1-503-2831987  
E-mail address : sales-US@TCIchemicals.com

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-2867624

Transportation Emergencies: Chemtrec 24-Hour +1-800-4249300 (U.S.A.)/+1-703-5273887 (International)

### Recommended use of the chemical and restrictions on use

Recommended use : Use as laboratory reagent

## SECTION 2. HAZARDS IDENTIFICATION

### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |  |
|--|--|
| Skin irritation                                    | : Category 2   |
| Eye irritation                                     | : Category 2B  |
| Skin sensitization                                 | : Category 1   |
| Germ cell mutagenicity                             | : Category 2   |
| Carcinogenicity                                    | : Category 2   |
| Reproductive toxicity                              | : Category 1B  |
| Specific target organ toxicity - single exposure   | : Category 1 (Liver, Blood)                              |
| Specific target organ toxicity - repeated exposure | : Category 1 (Liver, Respiratory system, Nervous system) |
| Specific target organ toxicity - repeated exposure | : Category 2 (Kidney)                                    |
| Short-term (acute) aquatic hazard                  | : Category 1   |

### GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H315 + H320 Causes skin and eye irritation.  
H317 May cause an allergic skin reaction.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H360 May damage fertility or the unborn child.  
H370 Causes damage to organs (Liver, Blood).  
H372 Causes damage to organs (Liver, Respiratory system, Nervous system) through prolonged or repeated exposure.  
H373 May cause damage to organs (Kidney) through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.

Precautionary Statements : **Prevention:**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P272 Contaminated work clothing must not be allowed out of the

workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

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

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

P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

**Components**

| Chemical name       | CAS RN   | Concentration (% w/w) |
|---------------------|----------|-----------------------|
| 1,4-Dichlorobenzene | 106-46-7 | >= 90 - <= 100        |

Actual concentration is withheld as a trade secret

### SECTION 4. FIRST AID MEASURES

- If inhaled : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician.
- In case of skin contact : Take off all contaminated clothing immediately. Wash off with plenty of water. Call a POISON CENTER or doctor/ physician.
- In case of eye contact : Rinse with plenty of water. If easy to do, remove contact lens, if worn. Call a POISON CENTER or doctor/ physician.
- If swallowed : Call a POISON CENTER or doctor/ physician. Rinse mouth.
- Most important symptoms and effects, both acute and delayed : None known.

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry powder, Foam, Water spray, Carbon dioxide (CO2)
- Specific hazards during fire fighting : No information available.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.
- Special protective equipment for fire-fighters : Use personal protective equipment.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency proce- : Wear suitable protective equipment. Keep people away from and up-wind of spill/leak. Entry to non-involved personnel should be controlled

dures : around the leakage area by roping off, etc.  
 Environmental precautions : Should not be released into the environment.  
 Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.

## SECTION 7. HANDLING AND STORAGE

Technical measures : Prevent dispersion of dust.  
 Local/Total ventilation : Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.  
 Advice on safe handling : Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash hands and face thoroughly after handling.  
 Conditions for safe storage : Keep container tightly closed. Store in a cool and shaded area. Store locked up. Avoid exposure to light.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

| Components          | CAS RN   | Value type<br>(Form of exposure) | Control parameters<br>/ Permissible concentration | Basis    |
|---------------------|----------|----------------------------------|---|----------|
| 1,4-Dichlorobenzene | 106-46-7 | TWA                              | 10 ppm  | ACGIH    |
|                     |          | TWA                              | 75 ppm<br>450 mg/m <sup>3</sup>                   | OSHA Z-1 |
|                     |          | TWA                              | 75 ppm<br>450 mg/m <sup>3</sup>                   | OSHA P0  |
|                     |          | STEL                             | 110 ppm<br>675 mg/m <sup>3</sup>                  | OSHA P0  |

**Engineering measures** : Install a closed system or local exhaust. Also install safety shower and eye bath.

### Personal protective equipment

Respiratory protection : Dustproof gas mask, Self-contained breathing apparatus  
 Hand protection : Impervious gloves  
 Eye protection : Safety glasses, Safety goggles, Face-shield  
 Skin and body protection : Impervious protective clothing

\*Use personal protective equipment (PPE) approved under appropriate government standards and follow local and national regulations.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Solid form  
 Color : white  
 Odor : No data available  
 Odor Threshold : 0.18 ppm  
 pH : No data available  
 Melting point/freezing point : 131 °F / 55 °C  
 Boiling point/boiling range : 343 °F / 173 °C  
 Flash point : No data available  
 Flammability (solid, gas) : No data available  
 Upper explosion limit / Upper flammability limit : 16 %(V)  
 Lower explosion limit / Lower flammability limit : 6.2 %(V)  
 Vapor pressure : 170 Pa (68 °F / 20 °C)  
 Relative vapor density : 5.08  
 Relative density : No data available  
 Solubility(ies)  
   Water solubility : 80 mg/l insoluble (77 °F / 25 °C)  
   Solubility in other solvents :  
     completely miscible : Acetone Ethanol  
     soluble : Ether Alcohol Benzene Chloroform  
 Partition coefficient: n-octanol/water : 3.37  
 Autoignition temperature : 775 °F / 413 °C  
 Decomposition temperature : No data available

|                      |                     |
|----------------------|---------------------|
| Viscosity            |                     |
| Viscosity, dynamic   | : No data available |
| Viscosity, kinematic | : No data available |
| Molecular weight     | : 147.00 g/mol      |

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## SECTION 10. STABILITY AND REACTIVITY

|                                    |   |
|------------------------------------|---|
| Reactivity                         | : No data available   |
| Chemical stability                 | : Stable under normal conditions.   |
| Possibility of hazardous reactions | : None under normal processing.   |
| Conditions to avoid                | : Exposure to light.  |
| Incompatible materials             | : Oxidizing agents, Reducing agents, Aluminum                               |
| Hazardous decomposition products   | : Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Hydrogen chloride gas |

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

|                     |                            |
|---------------------|----------------------------|
| Acute oral toxicity | : LDLo (Humans): 857 mg/kg |
|                     | TDLo (Humans): 300 mg/kg   |
|                     | LD50 (Rat): 500 mg/kg      |

### Skin corrosion/irritation

|        |                   |
|--------|-------------------|
| Result | : Skin irritation |
|--------|-------------------|

### Serious eye damage/eye irritation

|        |                       |
|--------|-----------------------|
| Result | : Mild eye irritation |
|--------|-----------------------|

### Respiratory or skin sensitization

|            |  |
|------------|--|
| Assessment | : May cause sensitization by skin contact. |
|------------|--|

### Germ cell mutagenicity

|                                     |  |
|-------------------------------------|--|
| Germ cell mutagenicity - Assessment | : Suspected of inducing heritable mutations in the germ cells of humans. |
|-------------------------------------|--|

### Carcinogenicity

|                              |                               |
|------------------------------|-------------------------------|
| Carcinogenicity - Assessment | : Suspected human carcinogens |
|------------------------------|-------------------------------|

#### IARC

|   |          |
|---|----------|
| Group 2B: Possibly carcinogenic to humans |          |
| 1,4-Dichlorobenzene                       | 106-46-7 |

#### OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

#### NTP

|   |          |
|---|----------|
| Reasonably anticipated to be a human carcinogen |          |
| 1,4-Dichlorobenzene                             | 106-46-7 |

### Reproductive toxicity

|                                    |  |
|------------------------------------|--|
| Reproductive toxicity - Assessment | : Presumed human reproductive toxicant |
|------------------------------------|--|

#### STOT-single exposure

|               |                            |
|---------------|----------------------------|
| Target Organs | : Liver, Blood             |
| Assessment    | : Causes damage to organs. |

#### STOT-repeated exposure

|               |   |
|---------------|---|
| Target Organs | : Liver, Respiratory system, Nervous system                       |
| Assessment    | : Causes damage to organs through prolonged or repeated exposure. |

|               |  |
|---------------|--|
| Target Organs | : Kidney   |
| Assessment    | : May cause damage to organs through prolonged or repeated exposure. |

|                        |                             |
|------------------------|-----------------------------|
| Repeated dose toxicity | : No information available. |
|------------------------|-----------------------------|

|                     |                             |
|---------------------|-----------------------------|
| Aspiration toxicity | : No information available. |
|---------------------|-----------------------------|

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**RTECS No.** : CZ4550000 (1,4-Dichlorobenzene)

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Toxicity to fish : LC50 (*Oryzias latipes* (Japanese medaka)): 1.63 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 2.5 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (*Selenastrum capricornutum* (green algae)): 7.1 mg/l  
Exposure time: 72 h

### Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

### Persistence and degradability

Biodegradability : 0% (by BOD), 0% (by HPLC)

### Bioaccumulative potential

Bioconcentration factor (BCF) : 33 - 72 (conc. 2 ug/L)

### Mobility in soil

Distribution among environmental compartments : Koc: 273

### Other adverse effects

#### Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Disposal in accordance with local and national regulations. Entrust disposal to a licensed waste disposal company.

Contaminated packaging : Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

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## SECTION 14. TRANSPORT INFORMATION

### International Regulations

#### IATA-DGR

UN/ID No. : UN 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.

Class : 9

Packing group : III

#### IMDG-Code

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class : 9

Packing group : III

EmS Code : F-A, S-F

Marine pollutant : yes

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation****49 CFR**

UN/ID/NA number : UN 3077  
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
Class : 9  
Packing group : III  
ERG Code : 171  
Marine pollutant : no

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**SECTION 15. REGULATORY INFORMATION****CERCLA Reportable Quantity**

| Components          | CAS RN   | Component RQ<br>(lbs) | Calculated product RQ<br>(lbs) |
|---------------------|----------|-----------------------|--------------------------------|
| 1,4-Dichlorobenzene | 106-46-7 | 100                   | 101                            |
| 1,4-Dichlorobenzene | 106-46-7 | 100                   | 100 (D027)                     |

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
1,4- 106-46-7 >= 90 - <= 100 %  
Dichlorobenzene

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

1,4-Dichlorobenzene 106-46-7 >= 90 - <= 100 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

1,4-Dichlorobenzene 106-46-7 >= 90 - <= 100 %

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

1,4-Dichlorobenzene 106-46-7 >= 90 - <= 100 %

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

1,4-Dichlorobenzene 106-46-7 >= 90 - <= 100 %

**US State Regulations****Massachusetts Right To Know**

1,4-Dichlorobenzene 106-46-7

**Pennsylvania Right To Know**

1,4-Dichlorobenzene 106-46-7

**Maine Chemicals of High Concern**

Product does not contain any listed chemicals

**Vermont Chemicals of High Concern**

Product does not contain any listed chemicals

**Washington Chemicals of High Concern**

Product does not contain any listed chemicals

**California Prop. 65**

WARNING: This product can expose you to chemicals including 1,4-Dichlorobenzene, which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**California List of Hazardous Substances**

|                     |          |
|---------------------|----------|
| 1,4-Dichlorobenzene | 106-46-7 |
|---------------------|----------|

**California Permissible Exposure Limits for Chemical Contaminants**

|                     |          |
|---------------------|----------|
| 1,4-Dichlorobenzene | 106-46-7 |
|---------------------|----------|

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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**SECTION 16. OTHER INFORMATION**

Revision Date : 11/12/2024

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.