

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: Ortho-DICHLOROBENZENE

CAS#: 95-50-1

Synonym: 1,2-Dichlorobenzene

Chemical Name: Ortho-Dichlorobenzene

Chemical Formula: C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>

## Composition and Information on Ingredients

Name	S.K.U	% by Weight
Ortho-DICHLOROBENZENE	GCS-4773	100

## Hazards Identification

### Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (permeator), of inhalation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

### Potential Chronic Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (permeator), of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to kidneys, liver, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

## First Aid Measures

### Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

### Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an

emollient. If irritation persists, seek medical attention.  
Wash contaminated clothing before reusing.

**Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:**

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

**Ingestion:**

Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

**Fire and Explosion Data**

Flammability of the Product: Combustible.

Auto-Ignition Temperature: 648°C (1198.4°F)

Flash Points: CLOSED CUP: 66°C (150.8°F). OPEN CUP: 68°C (154.4°F).

Flammable Limits: LOWER: 2.2% UPPER: 9.2%

Products of Combustion: These products are carbon oxides (CO, CO<sub>2</sub>), halogenated compounds.

**Fire Hazards in Presence of Various Substances:**

Slightly flammable to flammable in presence of oxidizing materials.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.  
Slightly explosive to explosive in presence of oxidizing materials.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

## Accidental Release Measures

### Small Spill:

Absorb with an inert material and put the spilled material in an appropriate waste disposal.

### Large Spill:

Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## Handling and Storage

### Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

### Storage:

Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. Keep container dry. Keep in a cool place.

## Exposure Controls/Personal Protection

### Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Exposure Limits:

TWA: 50 (ppm) TWA: 300 (mg/m<sup>3</sup>) Consult local authorities for acceptable exposure limits.

## Physical and Chemical Properties

### Physical state and appearance: Liquid.

Odor	: Pleasant.
Taste	: Not available.
Molecular Weight	: 147 g/mole
Color	: Colorless to light yellow.
pH (1% soln/water)	: Not applicable.
Boiling Point	: 180°C (356°F)
Melting Point	:
-17.6°C (0.3°F)	
Critical Temperature	:
Not applicable.	
Specific Gravity	:
1.3059 (Water = 1)	
Vapor Pressure	:
1.2 mm of Hg (@ 20°C)	
Vapor Density	:
5.07 (Air = 1)	
Volatility	: Not available.
Odor Threshold	: 2 ppm
Water/Oil Dist. Coeff.	: The product is equally soluble in oil and water; log(oil/water)
= 0	
Ionicity (in Water)	: Not available.
Dispersion Properties	: Not available.
Solubility	: Very slightly soluble in cold water.

## Stability and Reactivity Data

Stability: The product  
is stable.

Instability

Temperature:

Not available.

Conditions of

Instability:

Not available.

Incompatibility with various substances: Not available.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.  
Polymerization: No

## Toxicological Information

Routes of Entry: Dermal contact. Eye contact. Inhalation. Ingestion.

### Toxicity to Animals:

Acute oral toxicity (LD50): 500 mg/kg [Rabbit].

### Chronic Effects on Humans:

The substance is toxic to kidneys, liver, mucous membranes.

### Other Toxic Effects on Humans:

Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of skin contact (permeator), of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Toxicological Data on Ingredients: Ortho-Dichlorobenzene : ORAL (LD50): Acute: 500 mg/kg [Rat]. 500 mg/kg [Rabbit].

## Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

## Disposal Considerations

### Waste Disposal:

## Transformation Information

Land transport (ADR-RID)

Proper shipping name: O-DICHLOROBENZENE

UN N°: 1591

**H.I. nr: 60**

ADR - Class: 6.1

Labelling - Transport: 6.1 : Toxic substances.

**ADR - Group: III**

Sea transport (IMDG) [English only]

Proper shipping name: O-DICHLOROBENZENE

UN N°: 1591

IMO-IMDG - Class or division: 6.1 : Toxic substances.

**IMO-IMDG - Packing group: III**

Air transport (ICAO-IATA)

[English only] Proper shipping

name: O-

DICHLOROBENZENE

UN N°: 1591

IATA - Class or division: 6.1 : Toxic substances.

**IATA - Packing group: III**

## Other Regulatory Information

Federal and State Regulations: Pennsylvania RTK: 1,2-Dichlorobenzene  
Massachusetts RTK: 1,2- Dichlorobenzene TSCA 8(b) inventory: 1,2-  
Dichlorobenzene SARA 313 toxic chemical notification and release reporting: 1,2-  
Dichlorobenzene CERCLA: Hazardous substances.: O-DICHLOROBENZENE

### Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

### Other Classifications:

WHMIS (Canada): CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC): R38- Irritating to skin. R41- Risk of serious damage to eyes.

**HMIS (U.S.A.):**

Health Hazard: 2

**Fire Hazard: 1**

Reactivity: 0

**Personal Protection: E**

National Fire Protection Association (U.S.A.):

**Health: 2**

Flammability: 1

**Reactivity: 0**

Specific hazard:

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

**Additional Information**

References: Not available.

Other Special Considerations: Not available.

## ***Disclaimer:***

\*\*\*\*\*

The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.



**makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which**

the information refers. Accordingly,  will not be responsible for damages resulting from use of or reliance upon this information.