

# SAFETY DATA SHEET

SDS No.1021-21004

Revised Date June 11, 2014 1/4 page

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 1,4-Dichlorobenzene  
NAME OF MANUFACTURER : GL Sciences Inc.  
ADDRESS : 22-1 Nishishinjuku 6-chome Shinjuku-ku Tokyo 163-1130, Japan  
CHARGE SECTION : International Sales Section  
TELEPHONE No. : +81-3-5323-6620  
FACSIMILE No. : +81-3-5323-6621  
PRODUCT No. : 1021-21004  
SDS No. : 1021-21004  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Eye damage/eye irritation : Category 2  
Skin sensitization : Category 1  
Carcinogenicity : Category 2  
Reproductive toxicity : Category 1B  
Specific target organ toxicity, single exposure : Category 1 (blood, liver)  
Specific target organ toxicity, single exposure : Category 3 (respiratory tract irritation)  
Specific target organ toxicity, repeated exposure : Category 1 (respiratory system, liver, nervous system, blood)  
 : Category 2 (kidneys)  
Hazardous to the aquatic environment - acute hazard- : Category 1  
Hazardous to the aquatic environment -chronic hazard- : Category 1

HAZARDS SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H319 Causes serious eye irritation  
H317 May cause an allergic skin reaction  
H351 Suspected of causing cancer  
H360 May damage fertility or the unborn child  
H370 Causes damage to organs  
H335 May cause respiratory irritation  
H372 Causes damage to organs through prolonged or repeated exposure  
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

PRECAUTIONARY STATEMENTS :

P202 Do not handle until all safety precautions have been read and understood.  
P264 Wash hands and eyes thoroughly after handling.  
P280 Wear eye protection or face protection.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P260 Do not breathe dust or mist.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313	IF eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P333+P313	IF skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P308+P313	IF exposed or concerned: Get medical attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with all applicable regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY	: 1,4-Dichlorobenzene
SYNONYMS	: p-Dichlorobenzene
CHEMICAL FORMULA	: C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>
CONTENT	: > 99%
CAS No.	: 106-46-7
TSCA INVENTORY	: Listed
EINECS No.	: 203-400-5
EC INDEX No.	: 602-035-00-2

### 4. FIRST AID MEASURES

GENERAL ADVICE	: Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.
INHALATION	: Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.
SKIN CONTACT	: Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.
EYE CONTACT	: Remove any contact lenses at once. Flush eyes well with flooding large amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.
INGESTION	: Rinse mouth. Never give anything by mouth to an unconscious person. Consult a physician immediately.

### 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA	: Carbon dioxide, dry chemical powder, foam, water spray
FIRE & EXPLOSION HAZARDS	: Toxic, irritating, fumes or smoke may be emitted.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS	: Firemen should wear normal protective equipment(full bunker gear) and positive-pressure self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	: In case of insufficient ventilation, wear suitable respiratory equipment. Avoid raising dust and avoid contact with skin and eyes.
ENVIRONMENTAL PRECAUTIONS	: Prevent spills from entering sewers, watercourses or low areas.
METHODS FOR CLEAN UP	: Do not touch spilled material without suitable protection. Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). Then, wash the spill site with soap and water and ventilate the area. Pull all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose contaminated clothing.

### 7. HANDLING AND STORAGE

HANDLING	: Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Handle this product with suitable protection. After using this product, dispose of contents/container in accordance with all applicable regulations and appropriate ways.
STORAGE	: Store away from sunlight in well-ventilated cool place. Keep container tightly closed.
INCOMPATIBLE PRODUCTS	: Oxidizers

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

ENGINEERING MEASURES	: Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.
VENTILATION	: Local Exhaust ; Necessary, Mechanical(General) ; Necessary
PERSONAL PROTECTION	
RESPIRATORY PROTECTION	: Use respirators approved under appropriate government standards and follow all regulations.
HAND PROTECTION	: Protective gloves
EYE PROTECTION	: Safety glasses(goggles)
SKIN PROTECTION	: Protective clothing
CONTROL PARAMETERS	
OSHA PEL	: 75ppm
NIOSH REL	: Not established
ACGIH	: 10ppm

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	: White
SHAPE	: Solid
ODOR	: Characteristic odor
pH	: No data available
BOILING POINT	: 174 degree C
MELTING POINT	: 52 degree C
FLASH POINT	: 66 degree C
FLAMMABILITY	: lower 2.5vol%, upper 16vol%
AUTOIGNITION TEMPERATURE	: 413 degree C
VAPOR PRESSURE	: No data available
VAPOR DENSITY	: No data available
SPECIFIC GRAVITY	: 1.2
SOLUBILITY IN	
Water	: Insoluble
Organic solvent	: Soluble in ether, ethanol
DECOMPOSITION TEMPERATURE	: No data available

**10. STABILITY AND REACTIVITY**

REACTIVITY	: No data available
CHEMICAL STABILITY	: Degenerated by sunlight. There is sublimation nature.
CONDITION TO AVOID	: Sunlight, oxidizers
INCOMPATIBLE MATERIALS	: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS	: CO, CO2, chlorine compounds

**11. TOXICOLOGICAL INFORMATION**

EYE DAMAGE/EYE IRRITATION	: Human: Sever irritation(NICNAS,2000)
CARCINOGENICITY	: IARC(1999):Class 2B ACGIH(1990):Class A3 NTP(2000):Class R
REPRODUCTIVE TOXICITY	: degreasing of existing value (EU-RAR No.48,2004)
SPECIFIC TARGET ORGAN TOXICITY - single exposure-	: Human: damage to kidneys, rhinitis, pain to eyes and nose. (PATTY 5th,2001)
SPECIFIC TARGET ORGAN TOXICITY - repeated exposure-	: Human: damage to liver, nervous system, kidneys. (PATTY 5th,2001)
ASPIRATION TOXICITY	: No data available
OTHER INFORMATION	: RTECS No. CZ4550000

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12. ECOLOGICAL INFORMATION

ECOTOXICITY : Daphnia magna : EC50= 0.7mg/L/48hr  
BIODEGRADABILITY : BOD 0%  
BIOACCUMULATION POTENTIAL : No data available  
MOBILITY IN SOIL : No data available  
OTHER ADVERSE EFFECTS : Not listed in Montreal Protocol list.

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## 13. DISPOSAL INFORMATION

Dispose in a hazardous-waste site in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environment agency for specific rules).

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## 14. TRANSPORT INFORMATION

## IATA

UN NUMBER : 3077  
UN PROPER SHIPPING NAME : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.  
(1,4-Dichlorobenzene)  
CLASS or DIVISION : 9  
PACKING GROUP : III  
ADR/RID : 3077, Environmentally hazardous substances, solid, n.o.s.  
DOT : 3077, Environmentally hazardous substances, solid, n.o.s.  
MARINE POLLUTANT : Yes

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## 15. REGULATORY INFORMATION

US REGULATIONS : Labeling according to EC Directives; See section 2  
EU REGULATIONS : Labeling according to EC Directives; See section 2

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## 16. OTHER INFORMATION

## NOTICE:

The information contained in the SDS description is applicable exclusively to the chemical substance identified herein and for its intended use as an analytical reference standard or reagent and to the unit quantity intended for that purpose. The information does not relate to, and may not be appropriate for, any application or larger quantity of the substance described. Our products are intended for the use by individuals possessing sufficient technical skill and qualification on use the material potential hazardous chemical. Accordingly, no representation or warranty, express or implied, with respect to merchantability and fitness for a particular purpose is made with respect to the information contained herein.

## Attention:

This product in terms of chemical identity and the unit amount provide is intended for use in chemical analysis and not for human consumption, nor any other purpose.