

SAFETY DATA SHEET

SDS No.1021-21002

Revised Date June 16, 2014 1/4 page

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 1,2-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. : 1021-21002
SDS No. : 1021-21002
Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Flammable liquid : Category 4
Acute toxicity - oral : Category 4
Acute toxicity - inhalation : Category 3
Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 2B
Germ cell mutagenicity : Category 2
Specific target organ toxicity (single exposure)
: Category 1 <liver, kidney>
Category 3 <anesthesia, respiratory irritation>
Specific target organ toxicity (repeated exposure)
: Category 1 <nervous system, liver, respiratory organs, blood system, >
: Category 2 <kidney>
Hazardous to the aquatic environment –acute hazard
: Category 1
Hazardous to the aquatic environment –chronic hazard
: Category 1

HAZARDS SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENT :

H226 Flammable liquid and vapour
H302 Harmful if swallowed
H332 Harmful if inhaled
H316 Cause mild skin irritation
H320 Cause eye irritation
H341 Suspected of causing genetic defects
H370 Causes damage to the organs <liver, kidney>
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness
H372 Causes damage to organs <nervous system, liver, respiratory organs, blood system > through prolonged or repeated exposure
H373 May cause damage to organs <kidney> 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.
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/eye protection.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P260	Do not breathing gas/mist/vapours.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P370+P378	In case of fire: Use appropriate medias to extinguish.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330	Rinse mouth.
P304+P340	IF INHALED: Remove person to fresh air and akeep comfortable.
P312	Call a POISON CENTER or doctor if you feel unwell.
P302+P352	IF ON SKIN: wash with plenty water.
P332+P313	If skin irritation occurs: Get medical attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
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 attention.
P308+P313	IF exposed or concerned: Get medical attention.
P314	Get medical 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	: 1,2-Dichlorobenzene
SYNONYMS	: o-Dichlorobenzene
CHEMICAL FOMULA	: C ₆ H ₄ Cl ₂
CONTENT	: > 99 %
MOLECULAR WEIGHT	: 147.0
CAS No.	: 95-50-1
TSCA INVENTORY	: Listed
EINECS No.	: 202-425-9
EC INDEX No.	: 602-034-00-7

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	: Combustible. Toxic, irritating fumes or smoke may be emitted. Above 66°C explosive vapour/air mixtures may be formed.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS	: Fireman should wear normal protective equipment(full bunker gear) and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- PERSONAL PRECAUTIONS** : Remove ignition sources and ventilate the area.
In case of insufficient ventilation, wear suitable respiratory equipment. Avoid raising dust and avoid contact with skin and eyes.
- ENVIROMENTAL PRECATIONS** : Prevent spills from entering sewers, watercourses or low areas.
- METHODS FOR CLEAN UP** : Do not touch spilled material without suitable protection. After material is completely picked up, 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 material with suitable protection.
After this product, dispose of contents/container in accordance with all applicable regulations and appropriate ways.
- STORAGE** : Store away from sunlight in well-ventilated dry place at 2 - 10°C.
Keep container tightly closed.
- INCOMOPATIBLE PRODUCTS** : Strong oxidizers and acids, aluminum, chlorides

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) ; Recommended
- PERSONAL PROTECTION**
- RESPIRATORY PROTECTION** : Use respirators approved under appropriate government standards and follow all regulations.
- HAND PROTECTION** : Chemical resistant gloves
- EYE PROTECTION** : Safety glasses(goggles)
- SKIN PROTECTION** : Protective clothing
- CONTROL PARAMETERS**
- OSHA** : TWA 50ppm(300mg/m³)
- NIOSH REL** : 50ppm(300mg/m³)
- ACGIH** : TWA 50ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE** : Clear
- SHAPE** : Liquid
- ODOR** : Characteristic odor
- pH** : No data available
- BOILING POINT** : 180-183°C
- MELTING POINT** : -17°C
- FLASH POINT** : 71.5°C
- FLAMMABILITY** : lower: 2.2% upper: 9.2%
- AUTOIGNITION TEMPERATURE** : 648°C
- VAPOR PRESSURE** : 0.16kPa(20°C)
- VAPOR DENCITY** : 5.07
- DENCITY** : No data available
- SPECIFIC GRAVITY** : 1.3059(20°C/4°C)
- SOLUBILITY IN**
- WATER** : very poor
- Organic solvent** : soluble
- PARTITION COEFFICIENT: n-octanol/water** : 3.43
- DECOMPOSITION TEMPERATURE** : Not available

10. STABILITY AND REACTIVITY

- REACTIVITY** : Decomposes on contact with hot surfaces or flames. Decompose by sunlight.
- CHEMICAL STABILITY** : React with aluminum and oxidants. Attacks plastics and rubbers.
- CONDITION TO AVOID** : Heat, contact with incompatible materials.
- INCOMPATIBLE MATERIALS** : Strong oxidizers and acids, aluminum, chlorides

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂, Hydrogen chloride, Hydrogen bromide

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (oral) : Rat LD50= 1,516mg/L(NICNAS,2001)
ACUTE TOXICITY (inhalation) : Rat LC50= 7.8mg/L/6h(calculated value)
SKIN CORROSION/IRRITATION : rabbit, human – moderate (CERI Hazard Data Sheet(2005), SIDS(2001))
EYE DAMAGE/EYE IRRITATION : rabbit – slightly (CERI Hazard Data Sheet(2004), SIDS(2001))
GERM CELL MUTAGENICITY : in vivo somatic mutagenesis assay - Positive (CERI Hazard Data Sheet,2004)
CARCINOGENICITY : Classified at IARC: 3(1987), ACGIH: A4(2002), EPA: D(2002).
REPRODUCTIVE TOXICITY : Not classified.
SPECIFIC TARGET ORGAN TOXICITY-single exposure
: Human: upper respiratory tract irritation, central nervous inhibition, toxic hepatitis and nephritis (CERI Hazard Data Sheet,2004).
SPECIFIC TARGET ORGAN TOXICITY-repeated exposure
: Human: damage to liver, blood system, kidney, pneumonitis (CERI Hazard Data Sheet,2004).
ASPIRATION TOXICITY : No data available

12. ECOLOGICAL INFORMATION

ECOTOXICITY : Crustacea: EC50=0.66mg/L/48hr
BIODEGRADABILITY : BOD=0%
BIOACCUMULATION POTENTIAL : BCF=260
MOBILITY IN SOIL : No data available
OTHER ADVERSE EFFECTS : Not listed in Montreal Protocol list.

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).

14. TRANSPORT INFORMATION

IATA

UN NUMBER : UN 1591
UN PROPER SHIPPING NAME : *ortho*-Dichlorobenzene
CLASS or DIVISION : Toxic and infectious substances (Class 6.1)
PACKING GROUP : III

DOT

IDENTIFICATION NUMBER : UN 1591
PROPER SHIPPING NAME : *ortho*-Dichlorobenzene
HAZARD CLASS : Toxic and infectious substances (Class 6.1)
MARINE POLLUTANT : Yes

15. REGULATORY INFORMATION

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

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.