

# SAFETY DATA SHEET

SDS No.1021-21006

Revised Date June 11, 2014 1/4 page

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 1,2,4-Trichlorobenzene  
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. : 1021-21006  
SDS No. : 1021-21006  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Acute toxicity-Oral : Category 4  
Specific target organ toxicity - single exposure - : Category 3 <anesthesia, respiratory tract irritation>  
Specific target organ toxicity - repeated exposure - : Category 2 <liver, kidney, thyroid, blood>  
Hazardous to the aquatic environment - Acute hazard - : Category 1  
Hazardous to the aquatic environment - Chronic hazard - : Category 1

HAZARDS SYMBOL :



SIGNAL WORD : Warning

HAZARD STATEMENTS :

H302 Harmful if swallowed  
H335 May cause respiratory irritation  
H336 May cause drowsiness or dizziness  
H373 May cause damage to organs through prolonged or repeated exposure <liver, kidney, thyroid, blood>  
H400 Very toxic to aquatic life  
H410 Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS :

P260 Do not breathe dust or mist.  
P264 Wash hands and eyes thoroughly after handling.  
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.  
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 keep comfortable for breathing.  
P314 Get medical attention if you feel unwell.  
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 : 1,2,4-Trichlorobenzene  
 CHEMICAL FORMULA : C<sub>6</sub>H<sub>3</sub>Cl<sub>3</sub>  
 CONTENT : > 99%  
 MOLECULAR WEIGHT : 181.5  
 CAS No. : 120-82-1  
 TSCA INVENTORY : Listed  
 EINECS No. : 204-428-0  
 EC INDEX No. : 602-087-00-6

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. Pull all wastes in a plastic bag for disposal and seal it tightly. Then, wash the spill site with soap and water and ventilate the area. 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 : Not established  
 ACGIH : TLV 5ppm (ceiling value)

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	: Colorless
SHAPE	: Liquid
ODOR	: Characteristic odor
pH	: No data available
BOILING POINT	: 214 degree C
MELTING POINT	: 17 degree C
FLASH POINT	: > 110 degree C
FLAMMABILITY	: lower: 2.5%, upper: 6.6%
AUTOIGNITION TEMPERATURE	: 645 degree C
VAPOR PRESSURE	: 1.3 (38 degree C)
VAPOR DENCITY	: 6.26
SPECIFIC GRAVITY	: 1.4634 (25degree C)
SOLUBILITY IN	
Water	: Insoluble
Organic solvent	: Soluble
DECOMPOSITION TEMPERATURE	: No data available

---

**10. STABILITY AND REACTIVITY**

REACTIVITY	: Stable under recommended storage conditions.
CHEMICAL STABILITY	: Degenerated by sunlight. Decompose on burning.
CONDITION TO AVOID	: Sunlight, oxidizers
INCOMPATIBLE MATERIALS	: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS	: CO, CO <sub>2</sub> , chlorine compounds

---

**11. TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY	: Rat:LD50=1107, 756, 930, 880mg/kg (OECD TG401,EU-RAR(2003),ACGIH(7th,2001),DFGOT vol.3(1992))
SKIN CORROSION/IRRITATION	: Not classified
EYE DAMAGE/EYE IRRITATION	: Not classified
GERM CELL MUTAGENICITY	: Not classified
CARCINOGENICITY	: No data available
REPRODUCTIVE TOXICITY	: No data available
SPECIFIC TARGET ORGAN TOXICITY - single exposure -	: Human: irritation and damage to respiratory system. (ACGIH(7th,2001),EU-RAR(2003))
SPECIFIC TARGET ORGAN TOXICITY - repeated exposure -	: Rat: damage to liver, kidneys, blood (EU-RAR(2003), IRIS(1991))
ASPIRATION TOXICITY	: No data available

---

**12. ECOLOGICAL INFORMATION**

ECOTOXICITY	: Crustacea : EC50/LC50= 0.308mg/L (CICAD 60,2004)
BIODEGRADABILITY	: There is no rapidly biodegradability.
BIOACCUMULATION POTENTIAL	: Bioaccumulation of this chemical may occur in fish.
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	: 2321
UN PROPER SHIPPING NAME	: Trichlorobenzenes, Liquid
CLASS or DIVISION	: 6.1, P
PACKING GROUP	: III

---

ADR/RID	: 2321, Trichlorobenzenes, liquid
DOT	: 2321, Trichlorobenzenes, liquid
MARINE POLLUTANT	: Yes

---

**15. REGULATORY INFORMATION**

US REGULATIONS	: Labeling according to EC Directives; 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.