

SAFETY DATA SHEET

SDS No.1021-21010

Revised Date June 3, 2014

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 1,2,4,5-Tetrachlorobenzene
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
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PRODUCT No. : 1021-21010
SDS No. : 1021-21010
Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Acute toxicity - oral : Category 4
Reproductive toxicity : Category 2
Reproductive toxicity : effect on or via lactation
Specific target organ toxicity (single exposure) : Category 3 <anesthesia>
Specific target organ toxicity (repeated exposure) : Category 1 <kidney, thyroid>
: Category 2 <liver, blood>
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 :

H302 Harmful if swallowed
H361 Suspected of damaging fertility or the unborn child
H362 May cause harm to breast-fed children
H370 Causes damage to the organs <nervous system, heart>
H336 May cause drowsiness or dizziness
H372 Causes damage to organs <central nervous system, liver, heart> through prolonged or repeated exposure
H373 May cause damage to organs <lungs> 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 thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/eye protection.
P260 Do not breathing gas/mist/vapours.
P263 Avoid contact during pregnancy and while nursing.
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.
P308+P313 IF exposed or concerned: Get medical attention.

P304+P340	IF INHALED: Remove person to fresh air and akeep comfortable.
P312	Call a POISON CENTER if you feel unwell.
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	: 1,2,4,5-Tetrachlorobenzene
SYNONYMS	: Benzene tetrachloride, s-Tetrachlorobenzene
CHEMICAL FOMULA	: C ₆ H ₂ Cl ₄
CONTENT	: > 99 %
MOLECULAR WEIGHT	: 215.9
CAS No.	: 95-94-3
TSCA INVENTRY	: Listed
EINECS No.	: 202-466-2
EC INDEX No.	: Not established

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 solid. Toxic, irritating fumes or smoke may be emitted.
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 using 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. Keep container tightly closed.
INCOMOPATIBLE PRODUCTS	: Strong oxidizers and acids, strong bases

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 : Protective gloves
- EYE PROTECTION : Safety glasses(goggles)
- SKIN PROTECTION : Protective clothing
- CONTROL PARAMETERS
- OSHA : Not established
- NIOSH REL : Not established
- ACGIH : Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE : Reddish white
- SHAPE : Solid (flake form)
- ODOR : No data available
- pH : No data available
- BOILING POINT : 140°C
- MELTING POINT : 245°C
- FLASH POINT : 155°C
- FLAMMABILITY : No data available
- AUTOIGNITION TEMPERATURE : No data available
- VAPOR PRESSURE : 0.7Pa (25°C)
- VAPOR DENCITY : 7.4
- DENCITY : Not available
- SPECIFIC GRAVITY : 1.7 (20°C/4°C)
- SOLUBILITY IN
- WATER : Insoluble
- Organic solvent : Soluble
- PARTITION COEFFICIENT: n-octanol/water : 4.51
- DECOMPOSITION TEMPERATURE : No data available

10. STABILITY AND REACTIVITY

- REACTIVITY : Reacts with strong oxidants.
- CHEMICAL STABILITY : Decomposes on burning.
- CONDITION TO AVOID : Heat, contact with incompatible materials.
- INCOMPATIBLE MATERIALS : Strong oxidizer, strong bases
- HAZARDOUS DECOMPOSITION PRODUCTS : CO, CO₂, Hydrogen chloride, chloroethylene, phosgene

11. TOXICOLOGICAL INFORMATION

- ACUTE TOXICITY -oral- : rat - LD50=1,500mg/kg(EHC 128,1991)
- SKIN CORROSION/IRRITATION : This is non-irritating to skin. (BUA 86,1991)
- EYE DAMAGE/EYE IRRITATION : This is non-irritating to eye. (BUA 86,1991)
- GERM CELL MUTAGENICITY : mouse: micronucleus test, in vivo mutagenic study –Negative(NTP DB,2012)
- CARCINOGENICITY : No data available
- REPRODUCTIVE TOXICITY : mouse: damage to liver, neonatal transfer via lactation.(EHC 128(1991),BUA 86(1991).
- SPECIFIC TARGET ORGAN TOXICITY-single exposure : rat: inhibition symptom, muscle relaxant effect, collapse, hypothermia, narcosis, damage to kidney, liver. (EHC 128(1991),BUA 86(1991)
- SPECIFIC TARGET ORGAN TOXICITY-repeated exposure : rat: damage to kidney, liver, thyroid.(NTP TOX 7,1991)
- ASPIRATION TOXICITY : No data available

12. ECOLOGICAL INFORMATION

ECOTOXICITY : Fish: LC50=0.33mg/L/96hr (CICAD 60,2004))
BIODEGRADABILITY : BOD 0%
BIOACCUMULATION POTENTIAL : moderate
MOBILITY IN SOIL : No data available
OTHER ADVERSE EFFECTS : Not listed in Montreal Protocol.

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 : Not applicable
DOT : Not applicable

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.