

SAFETY DATA SHEET

SDS No.1021-21011

Revised Date May 28, 2014 1/4 page

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Pentachlorobenzene
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. : 1021-21011
SDS No. : 1021-21011
Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Acute toxicity-oral- : Category 4
Reproductive toxicity : Category 2
Reproductive toxicity : effects on or via lactation
Specific target organ toxicity (single exposure) : Category 2 <central nervous system>
Specific target organ toxicity (repeated exposure) : Category 2 <liver, kidney, thyroid>
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
H360 May damages fertility or the unborn child
H362 May cause harm to breast-fed children
H371 May cause damage to organs < central nervous system>
H373 May cause damage to organs < liver, kidney, thyroid > through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS :

P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/eye protection.
P260 Do not breathing gas/mist/vapours.
P263 Avoid contact during pregnancy and while nursing.
P273 Avoid release to the environment.
P301+P312 IF SWALLOWED: Call a POISON CENTER of you feel unwell
P330 Rinse mouth
P308+P313 IF exposed or concerned: Get medical attention.
P314 Get medical attention if you feel unwell.
P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents/container in accordance with all applicable regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY	: Pentachlorobenzene
SYNONYMS	: HCB, Pentachlorophenylchloride, Phenyl perchloryl
CHEMICAL FORMULA	: C ₆ HCl ₅
CONTENT	: > 99 %
MOLECULAR WEIGHT	: 250.3
CAS No.	: 608-93-5
TSCA INVENTORY	: Listed
EINECS No.	: 210-172-0
EC INDEX No.	: 602-074-00-5

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 under specific conditions. 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.
ENVIRONMENTAL PRECAUTIONS	: 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. Keep container tightly closed.
INCOMPATIBLE PRODUCTS	: Strong oxidizers and acids, strong bases, zinc, aluminum, magnesium powders, sodium, potassium

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	: P2 filter respirator for harmful particles.
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	: Colorless or White
SHAPE	: Powder
ODOR	: No data available
pH	: No data available
BOILING POINT	: 276°C
MELTING POINT	: 85°C
FLASH POINT	: No data available
FLAMMABILITY	: No data available
AUTOIGNITION TEMPERATURE	: No data available
VAPOR PRESSURE	: 0.02hPa(25°C)
VAPOR DENSITY	: 8.6 (air = 1)
DENSITY	: No data available
SPECIFIC GRAVITY	: 1.8
SOLUBILITY IN	
WATER	: 1.33mg/L, 25°C
Organic solvent	: Insoluble in ethanol, slightly soluble in ether and benzene.
PARTITION COEFFICIENT: n-octanol/water	
	: 5.03~5.63
DECOMPOSITION TEMPERATURE	
	: No data available

10. STABILITY AND REACTIVITY

REACTIVITY	: Combustible under specific condition.
CHEMICAL STABILITY	: Decompose on burning. This produces toxic and corrosive fumes including hydrogen chloride.
CONDITION TO AVOID	: Heat, sunlight, open flame, sparks, contact with incompatible materials.
INCOMPATIBLE MATERIALS	: No data available
HAZARDOUS DECOMPOSITION PRODUCTS	
	: CO, CO ₂ , Hydrogen chloride, phosgene

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY-oral-	: rat LD50=1,125 and 1,080 mg/kg(EHC 128,1991)
ACUTE TOXICITY-dermal-	: rat LD50>2,500mg/kg(EHC 128,1991)
EYE DAMAGE/EYE IRRITATION	: No data available
GERM CELL MUTAGENICITY	: mouth –negative (NTP DB(Access on Sep. 2012)
CARCINOGENICITY	: No data available
REPRODUCTIVE TOXICITY	: Rat, mouse: reproduction test – Positive(PATTY(6th,2012)).
SPECIFIC TARGET ORGAN TOXICITY-single exposure	
	: Rat, mouth: acute toxicity test – Positive(EHC 128(1991),HSDB(2010)).
SPECIFIC TARGET ORGAN TOXICITY-repeated exposure	
	: Rat: damage to kidney, liver, thyroid (NTP TOX 6(1991),EHC 128(1991)).
ASPIRATION TOXICITY	: No data available
ADDITIONAL INFORMATION	
IARC	: Not established
OSHA	: Not established
ACGIH	: Not established
EPA	: D(IRIS,2003)

12. ECOLOGICAL INFORMATION

Hazardous to the aquatic environment –acute hazard	
	: Crustacea : EC50=0.01mg/L/24hr (CICAD 60,2004)
Hazardous to the aquatic environment –chlonic hazard	
	: BOD=0%, fish: NOEC=0.018mg/L/28D(CICAD 60,2004)
MOBILITY IN SOIL	: No data available

HAZARDOUS TO THE OZONE LAYER: 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 dangerous goods
DOT : Not dangerous goods
MARINE POLLUTANT : No

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.