

SAFETY DATA SHEET

SDS No.1021-34031

Revised Date May 28, 2014 1/4 page

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Hexachlorobenzene
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. : 1021-34031
SDS No. : 1021-34031
Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Carcinogenicity : Category 2
Reproductive toxicity : Category 1A
Specific target organ toxicity (repeated exposure) : Category 1 <liver, skin, thyroid, bone, kidney, immune system, endocrine system>
Specific target organ toxicity (repeated exposure) : Category 2 <immune system, nervous system>
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 :

H351 Suspected of causing cancer
H360 May damages fertility or the unborn child
H372 Causes damage to organs < liver, skin, thyroid, bone, kidney, immune system, endocrine system> through prolonged or repeated exposure
H373 May cause damage to organs < immune system, nervous system> 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.
P280 Wear protective gloves/eye protection.
P260 Do not breathing gas/mist/vapours.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
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 : Hexachlorobenzene
 SYNONYMS : HCB, Pentachlorophenylchloride, Phenyl perchloryl
 CHEMICAL FOMULA : C₆Cl₆
 CONTENT : > 99 %
 MOLECULAR WEIGHT : 284.8
 CAS No. : 118-74-1
 TSCA INVENTRY : Listed
 EINECS No. : 204-273-9
 EC INDEX No. : 602-065-00-6

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 to induce vomiting. 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 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, 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 : 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 : Not established
 NIOSH REL : Not established
 ACGIH : TWA 0.002mg/m³ (skin, A3)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : White
 SHAPE : Powder
 ODOR : No data available
 pH : No data available
 BOILING POINT : 323 - 326°C
 MELTING POINT : 231°C (decomposition)
 FLASH POINT : 242°C
 FLAMMABILITY : No data available
 AUTOIGNITION TEMPERATURE : No data available
 VAPOR PRESSURE : <0.1Pa (20°C), 0.133kPa(114°C)
 VAPOR DENSITY : 9.8 (air = 1)
 DENSITY : No data available
 SPECIFIC GRAVITY : 2.044 (23°C)
 SOLUBILITY IN
 WATER : Insoluble (0.005mg/L, 20°C)
 Organic solvent : Soluble in Chloroform, ether, benzene
 PARTITION COEFFICIENT: n-octanol/water : 6.2
 DECOMPOSITION TEMPERATURE : No data available

10. STABILITY AND REACTIVITY

REACTIVITY : Stable under usual condition.
 CHEMICAL STABILITY : React with dimethylformamide at temperature higher than 65 degrees C.
 CONDITION TO AVOID : Heat, sunlight, open flame, sparks, contact with incompatible materials.
 INCOMPATIBLE MATERIALS : Strong oxidizer, strong bases, aluminum, manganese, zinc
 HAZARDOUS DECOMPOSITION PRODUCTS : CO, CO₂, Hydrogen chloride

11. TOXICOLOGICAL INFORMATION

EYE DAMAGE/EYE IRRITATION : rabbit – no effect (EHC 195(1997),DFGOT(vol.19,2001))
 GERM CELL MUTAGENICITY : Dominant lethal test –Negative
 (IRIS(2005),EHC 195(1997),ACGIH 7th(2001), ATSDR(2002) DFGOT vol.16(2001),PATTY 4th(1994),IARC 79(2001))
 CARCINOGENICITY : Classified at EU: 2(2005), EPA: 2B(1996), IARC: 2B(2001), ACGIH: A3(2001), NTP: R(2005)
 REPRODUCTIVE TOXICITY : Rat, mouse: death rate of unborn-baby/baby was seriously increased and human new born baby breast-fed was deceased.(ACGIH(7th,2001), EHC195(1997), ATSDR(2002), DFGOT(vol.16,2001), PATTY(4th,1994), IARC79(2001)).
 SPECIFIC TARGET ORGAN TOXICITY-single exposure : Lack of data
 SPECIFIC TARGET ORGAN TOXICITY-repeated exposure : Human: liver damage, cutaneous porphyria, arthritis, enlargement of the thyroid gland. Rat, Mouse: effects on kidney and adrenal gland, thrill, immunodepression.
 (ACGIH(7th,2001),EHC195(1997),ATSDR(2002),DFGOT(vol.16,2001),PATTY(4th,1994),IARC79(2001),IRIS(2005)).
 ASPIRATION TOXICITY : No data available
 ADDITIONAL INFORMATION
 IARC : Group 2B
 OSHA : Listed
 ACGIH : A3

12. ECOLOGICAL INFORMATION

ECOTOXICITY : Algae (Daphnia magna): EC50<30µg/L/24hr (IUCLID,2000)
BIODEGRADABILITY : BOD 0%
BIOACCUMULATION POTENTIAL : BCF=30,000
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

UN NUMBER : UN 2729
UN PROPER SHIPPING NAME : Hexachlorobenzene
CLASS or DIVISION : Toxic (Class 6.1)
PACKING GROUP : III

DOT

IDENTIFICATION NUMBER : UN 2729
PROPER SHIPPING NAME : Hexachlorobenzene
HAZARD CLASS : Toxic (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.