SAFETY DATA SHEET

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 1,3,5-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. : 1021-21007 SDS No. : 1021-21007

Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Acute toxicity-Oral : Category 4

Eye damage/eye irritation : Category 2B

Specific target organ toxicity - single exposure -

: Category 3 <Respiratory irritation>

Specific target organ toxicity, repeated exposure

: Category 2 < liver, kidney, thyroid,

nasal cavity>

HAZARDS SYMBOL





SIGNAL WORD : Warning

HAZARD STATEMENTS

H302 Harmful if swallowed H320 Causes eye irritation

H335 May cause respiratory irritation

H373 May cause damage to organs through prolonged or repeated exposure

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.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/if you feel unwell.

P330 Rinse mouth.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove co

ntact lenses, if present and easy to do. Continue rinsing.

P337+P313 IF eye irritation persists: Get medical advice/attention.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P314 Get medical advice/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 : 1,3,5-Trichlorobenzene

CHEMICAL FOMULA : C6H3Cl3
CONTENT : > 99%
MOLECULAR WEIGHT : 181.5
CAS No. : 108-70-3
TSCA INVENTRY : Listed
EINECS No. : 203-608-6
EC INDEX No. : Not established

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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.

ENVIROMENTAL PRECATIONS : 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. 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.

INCOMOPATIBLE 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

RESPRATORY 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 : Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : White ∼ Pale white yellow

SHAPE : Solid

ODOR : Not available
pH : Not available
BOILING POINT : 208 degree C
MELTING POINT : 63 degree C
FLASH POINT : 107 degree C
FLAMMABILITY : Not available
AUTOIGNITION TEMPERATURE : Not available

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VAPOR PRESSURE : 24Pa(25 degree C)

VAPOR DENCITY : 1.0(Air=1) SPECIFIC GRAVITY : 1.4604

SOLUBILITY IN

Water : Insoluble

Organic solvent : Soluble in acetone, ethanol

10. STABILITY AND REACTIVITY

REACTIVITY : Stable under recommended storage conditions.

CHEMICAL STABILITY : Degenerated by sunlight.

CONDITION TO AVOID : Sunlight, oxidizers

INCOMPATIBILE MATERIALS : Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS

: CO, CO2, chlorine compounds

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : Rat : LD50=1800,2100,2490,2800,800mg/kg

SKIN CORROSION/IRRITATION : Out of category

EYE DAMAGE/EYE IRRITATION : Rabbit : Eye, Mild~Moderate(DFGOT vol.3,1992)

GERM CELL MUTAGENICITY : No data available CARCINOGENICITY : No data available REPRODUCTIVE TOXICITY : No data available SPECIFIC TARGET ORGAN TOXICITY - single exposure)

: Human: irritate to respiratory tract (Environment risk assessment vol.4, 2005)

SPECIFIC TARGET ORGAN TOXICITY -(epeated exposure)

Rat: damage to liver, thyroid, kidney, nasal cavity CaPSAR(1993),

PATTY(5th,2001), Environment risk assessment vol.4(2005))

ASPIRATION TOXICITY : No data available

12. ECOLOGICAL INFORMATION

ECOTOXICITY : Oryzias latipes : LC50=3.2mg/L/96hr BIODEGRADABILITY : There is no rapidly biodegradability.

BIOACCUMULATION POTENTIAL : It 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 : Not established ADR/RID : Not established DOT : Not established

MARINE POLLUTANT : No

15. REGULATORY INFORMATION

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