SAFETY DATA SHEET

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : n-Propylbenzene 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. : 1021-41507 SDS No. : 1021-41507

Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Flammable liquids : Category 3

Hazardous to the aquatic environment - Acute hazard

: Category 2

Hazardous to the aquatic environment - Chronic hazard

: Category 2

HAZARD SYMBOL



SIGNAL WORD : Warning

HAZARD STATEMENTS

H226 Flammable liquid and vapour

H401 Toxic to aquatic life

H411 Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS:

P210 Keep away from heat/sparks/open flames/hot surfaces. –No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P303+P361+P353 IF ON SKIN or hair: Take off immediately all contaminated clothing. Rins

e skin with water.

P370+P378 In case of fire: Use appropriate medias to extinguish.

P391 Collect spillage.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with all applicable regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME : n-Propylbenzene

SYNONYMS : --CONTENT : > 99%
CHEMICAL FORMULA : C3H7C6H5
CAS NUMBER : 103-65-1
TSCA INVENTORY : Listed
EINECS No : 203-132-9
EC INDEX No. : Not established

PRODUCT NAME : n-Propylbenzene

SDS No.1021-41507 Date October 7, 2015 2/4 page 4. FIRST AID MEASURES : Wash off immediately with soap and plenty of water. In the case of respirable **GENERAL ADVICE** 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, give plenty of water to dilute the substance. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician. 5. FIRE FIGHTING MEASURES **EXTINGUISHING MEDIA** : Powder, foam (alcohol foam), carbon dioxide, water spray. DISABLED EXTINGUISHING MEDIA : Straight stream. 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 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. Do not touch spilled material without suitable protection. After material is METHODS FOR CLEAN UP 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** : Keep away from ignition sources and ventilate the area - No smoking. In case of insufficient ventilation, wear suitable respiratory equipment. 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. Store away from sunlight, heat and all ignition sources in an explosion-proof **STORAGE** refrigerator (2 - 10 °C) INCOMOPATIBLE PRODUCTS : Strong oxidizers, acids 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 : Safety mask(Use respirators approved under appropriate government standards and follow all regulations.) HAND PROTECTION : Protective gloves **EYE PROTECTION** Safety glasses(goggles) SKIN PROTECTION Protective clothing

: Not established

: Not established

: Not established

CONTROL PARAMETERS

ACGIH

OSHA PEL

NIOSH REL

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Colorless SHAPE : Liquid

ODOR : Aromatic odor pH : No data available

BOILING POINT : $159.45 \,^{\circ}\text{C}$ MELTING POINT : $-99.6 \,^{\circ}\text{C}$ FLASH POINT : $30 \,^{\circ}\text{C}$

EXPLOSIVE LIMITS : 0.8 - 6.0 vol% VAPOR PRESSURE : 1.33 kPa (at 43.4 °C)

VAPOR DENSITY : 4.1 (air=1) SPECIFIC GRAVITY : 0.8593 (25 °C)

SOLUBILITY IN

Water : Insoluble (0.06 g/L)

Alcohol : Soluble
PARTITION COEFFICIENT ; n-octanol/water
: 3.69

10. STABILITY AND REACTIVITY

AUTOIGNITION TEMPERATURE

REACTIVITY : Stable under recommended storage conditions.

450 °C

CHEMICAL STABILITY : React with strong oxidizers.

CONDITION TO AVOID : Sunlight, heat, open flames, high temperature, sparks, static electrical charge,

shock, friction

INCOMPATIBILE MATERIALS : Strong oxidizers, strong acids

HAZARDOUS DECOMPOSITION PRODUCTS : CO, CO2

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY -oral: rat: LD50=6,040 mg/kg(PATTY(5th,2001))

SKIN CORROSION/IRRITATION : No data available EYE DAMAGE/EYE IRRITATION : No data available SENSITIZATION : No data available GERM CELL MUTAGENICITY : No data available CARCINOGENICITY : No data available REPRODUCTIVE TOXICITY : No data available

SPECIFIC TARGET ORGAN TOXICITY

: Lack of data

ASPIRATION TOXICITY : No data available

12. ECOLOGICAL INFORMATION

Hazardous to the aquatic environment - Acute hazard

: Rainbow trout: LC50=1.55mg/L (AQUIRE,2008)

Hazardous to the aquatic environment - Chronic hazard

: No rapid biodegradability (BIOWIN)

BIODEGRADABILITY : No

BIOACCUMULATION POTENTIAL : No data available 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).

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14. TRANSPORT INFORMATION

IATA

UN NUMBER : 2364

UN PROPER SHIPPING NAME : Propylbenzene

CLASS : Class 3, Flammable liquid

PACKING GROUP : III

ADR/RID : 2364, Flammable liquid DOT : 2364, Flammable liquid

MARINE POLLUTANT : Not classified

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.