

# SAFETY DATA SHEET

SDS No. 1021-41503

Revised date October 6, 2015

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## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Ethylbenzene  
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. : 1021-41503  
SDS No. : 1021-41503  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Flammable liquids : Category 2  
Acute toxicity - inhalation - : Category 4  
Eye damage/irritation : Category 2B  
Carcinogenicity : Category 2  
Reproductive toxicity : Category 1B  
Specific target organ toxicity (Single exposure) : Category 2(central nervous system)  
Specific target organ toxicity (Single exposure) : Category 3(respiratory irritation)  
Aspiration hazard : Category 1  
Hazardous to the aquatic environment - Acute hazard : Category 1

HAZARD SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H225 Highly flammable liquid and vapour  
H332 Harmful if inhaled  
H320 Cause eye irritation  
H351 Suspected of causing cancer  
H360 May damage fertility or the unborn child  
H371 May cause damage to organs (central nervous system)  
H335 May cause respiratory irritation  
H304 May be fatal if swallowed and enters airways  
H400 Very toxic to aquatic life

PRECAUTIONARY STATEMENTS :

P202 Do not handle until all safety precautions have been read and understood.  
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.  
P260 Do not breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.

P303+P361+P353	IF ON SKIN or hair: Take off immediately all contaminated clothing. Rinse skin with water.
P370+P378	In case of fire: Use appropriate medias to extinguish.
P308+P313	IF exposed or concerned: Get medical attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor if you feel unwell.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331	Do NOT induce vomiting.
P391	Collect spillage.
P403+P233+P235	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with all applicable regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	: Ethylbenzene
SYNONYMS	: - - -
CONTENT	: > 99%
CHEMICAL FORMULA	: C <sub>2</sub> H <sub>5</sub> C <sub>6</sub> H <sub>5</sub>
CAS NUMBER	: 100-41-4
TSCA INVENTORY	: Listed
EINECS No	: 202-849-4
EC INDEX No.	: 601-023-00-4

### 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, 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.
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**

<b>HANDLING</b>	: 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.
<b>STORAGE</b>	: Store away from sunlight, heat and all ignition sources in well-ventilated dry place. Keep container tightly closed.
<b>INCOMOPATIBLE PRODUCTS</b>	: Strong oxidizers, acids

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

<b>ENGINEERING MEASURES</b>	: Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.
<b>VENTILATION</b>	: Local Exhaust ; Necessary, Mechanical(General) ; Recommended
<b>PERSONAL PROTECTION</b>	
<b>RESPIRATORY PROTECTION</b>	: Safety mask(Use respirators approved under appropriate government standards and follow all regulations.)
<b>HAND PROTECTION</b>	: Protective gloves
<b>EYE PROTECTION</b>	: Safety glasses(goggles)
<b>SKIN PROTECTION</b>	: Protective clothing
<b>CONTROL PARAMETERS</b>	
<b>ACGIH</b>	: 100 ppm
<b>OSHA PEL</b>	: 100 ppm
<b>NIOSH REL</b>	: 100 ppm

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE</b>	: Colorless
<b>SHAPE</b>	: Liquid
<b>ODOR</b>	: Aromatic odor
<b>pH</b>	: No data available
<b>BOILING POINT</b>	: 136.2 °C
<b>MELTING POINT</b>	: -95 °C
<b>FLASH POINT</b>	: 24 °C
<b>EXPLOSIVE LIMITS</b>	: 1.0 - 7.8 vol%
<b>VAPOR PRESSURE</b>	: 0.9 kPa (at 20 °C)
<b>VAPOR DENSITY</b>	: 3.66 (air=1)
<b>SPECIFIC GRAVITY</b>	: 0.866 (20/20 °C)
<b>SOLUBILITY IN</b>	
Water	: Insoluble (0.015 g/100 mL, 20 °C)
Alcohol	: Soluble in Ethanol, Ether
<b>PARTITION COEFFICIENT ; n-octanol/water</b>	: 3.15
<b>AUTOIGNITION TEMPERATURE</b>	: 432 °C

**10. STABILITY AND REACTIVITY**

<b>REACTIVITY</b>	: Stable under recommended storage conditions.
<b>CHEMICAL STABILITY</b>	: React with strong oxidizers.
<b>CONDITION TO AVOID</b>	: Sunlight, heat, open flames, high temperature, sparks, static electrical charge, shock, friction
<b>INCOMPATIBLE MATERIALS</b>	: Strong oxidizers, strong acids
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	: CO, CO <sub>2</sub>

**11. TOXICOLOGICAL INFORMATION**

<b>ACUTE TOXICITY -oral-</b>	: rat: LD50=3,500 mg/kg(EHC 186,1996)
<b>ACUTE TOXICITY -inhalation-</b>	: rat: LD50=4,000ppm(17.2mg/L)(ATSDR,1999)
<b>SKIN CORROSION/IRRITATION</b>	: mild irritating (ATSDR,1999)
<b>EYE DAMAGE/EYE IRRITATION</b>	: slightly to mild irritating (EHC 186,1996)
<b>SENSITIZATION</b>	: Lack of data
<b>GERM CELL MUTAGENICITY</b>	: negative (SIDS,2005)

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CARCINOGENICITY	: 2B (IARC,2000), A3 (ACGIH,2001)
REPRODUCTIVE TOXICITY	: Positive (CERI hazard data 96-41(1998), SIDS(2005))
SPECIFIC TARGET ORGAN TOXICITY -single exposure-	: effect to central nervous system, respiratory tract irritation (CERI hazard data 96-41(1998))
ASPIRATION TOXICITY	: May cause to chemical pneumonia. (ICSC(J),1995)

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**12. ECOLOGICAL INFORMATION**

Hazardous to the aquatic environment - Acute hazard

	: Brown shrimp: LC50=0.4mg/L (CERI/NITE hazard assessment,2006)
BIODEGRADABILITY	: rapidly biodegradability (SIDS,2005)
BIOACCUMULATION POTENTIAL	: low (log Kow=3.15(PHYSPROP Database,2005))
MOBILITY IN SOIL	: No data available
OTHER ADVERSE EFFECTS	: Not listed in Montreal Protocol list.

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**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	: 1175
UN PROPER SHIPPING NAME	: Ethylbenzene
CLASS	: Class 3, Flammable liquid
PACKING GROUP	: II
ADR/RID	: 1175, Flammable liquid
DOT	: 1175, Flammable liquid
MARINE POLLUTANT	: Not classified

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**15. REGULATORY INFORMATION**

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

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**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.