

# SAFETY DATA SHEET

SDS No. 1021-31005

Date

October 25, 2018 1/4 page

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Trimethylamine 1µg/µL in Ethanol  
NAME OF SUSPPLIER : 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. : 1021-31005  
SDS No. : 1021-31005  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Flammable liquid : Category 2  
Serious eye damage/eye irritation : Category 2A  
Carcinogenicity : Category 1A  
Reproductive toxicity : Category 1A  
Specific target organ toxicity  
(Single exposure) : Category 3(Respiratory tract irritation, Narcotic effects)  
Specific target organ toxicity  
(Repeated exposure) : Category 1(Liver)  
: Category 2(Central nervous system)

HAZARD SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H225 Highly flammable liquid and vapour  
H319 Cause serious eye irritation  
H350 May cause cancer  
H360 May damage fertility or the unborn child  
H335 May cause respiratory irritation  
H336 May cause drowsiness or dizziness  
H372 Cause damage to organs through prolonged or repeated exposure<Liver>  
H373 May cause damage to organs through prolonged or repeated exposure <Central nervous system>

PRECAUTIONARY STATEMENTS :

[PREVENTION]

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 only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P264 Wash hands thoroughly after handling.  
P260 Do not breathe fume/gas/mist/vapours.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.

[RESPONSE]

P303+P361+ P353 IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378	In case of fire: Use appropriate media such as chemical powder or carb on dioxide to extinguish.
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 attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breat hing.
P314	Get medical attention if you feel unwell.
[STORAGE]	
P403+ P233+P235	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405	Store locked up.
[DISPOSAL]	
P501	Dispose of contents/container in accordance with all applicable regulation s.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY : Mixture

CHEMICAL NAME	CONTENT	CHEMICAL FORMULA	CAS RN.	TSCA INVENTORY	EINECS No.
Ethanol	99.9 %	H <sub>2</sub> O	64-17-5	Listed	200-578-6
Trimethylamine	0.1 %	(CH <sub>3</sub> ) <sub>3</sub> N	75-50-3	Listed	200-875-0

4. FIRST AID MEASURES

GENERAL ADVICE	: Wash off immediately with soap and plenty of water. In the case of resp irable 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 flushi ng by separating the eyelids with sterile fingers. If irritation persists, con sult 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. Con sult a physician.

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 p ositive-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. Av oid raising dust and avoid contact with skin and eyes.
ENVIRONMENTAL 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 venti late the area. Pull all wastes in a plastic bag for disposal and seal it tig htly. 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.
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STORAGE : Store away from sunlight in well-ventilated dry place.  
Keep container tightly closed.

INCOMPATIBLE PRODUCTS : Strong oxidizers and acids, strong bases.

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

CONTROL PARAMETERS

ACGIH : (Ethanol) TWA 1,000 ppm  
(Trimethylamine)TWA 5 ppm, STEL 15 ppm

OSHA PEL : (Ethanol) TWA 1,000 ppm

NIOSH : (Ethanol) TWA 1,000 ppm

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

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Colorless

PHYSICAL STATE : Liquid

ODOR : Characteristic odor

pH : No data available

BOILING POINT : No data available

MELTING POINT : No data available

FLASH POINT : No data available

AUTOIGNITION TEMPERATURE : No data available

VAPOR PRESSURE : No data available

VAPOR DENSITY : No data available

DENSITY : No data available

SOLUBILITY IN

Water : soluble

Organic solvent : soluble

PARTITION COEFFICIENT:

n-octanol/water : No data available

DECOMPOSITION TEMPERATURE

: No data available

10. STABILITY AND REACTIVITY

REACTIVITY : Stable under recommended storage conditions.

CHEMICAL STABILITY : No data available

CONDITION TO AVOID : Sunlight, heat, ignition sources, oxidizers

INCOMPATIBLE MATERIALS : Strong oxidizers, acids, bases

HAZARDOUS DECOMPOSITION PRODUCTS

: CO, CO<sub>2</sub>, NO<sub>x</sub>

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : oral, dermal, inhalation: Not classified

SKIN CORROSION/IRRITATION : This product is not classified.

EYE DAMAGE/EYE IRRITATION : This product is classified in Category 2A.

(Ethanol) : Rabbit; moderate irritation(SIDS,2005)

(Trimethylamine) : Human; Corneal epithelial erosion occurred but recovered in 4 to 5 days (ACGIH(7th,2013)).

RESPIRATORY OR SKIN SENSITIZATION

: Classification not possible.

GERM CELL MUTAGENICITY : Classification not possible.

CARCINOGENICITY (Ethanol)	: This product is classified in Category 1 by Ethanol. : ACGIH: Group A3(ACGIH(7th,2012)), It was clarified that Ethanol included in alcohol drinks and its main metabolite, Acetaldehyde, induce a cancer of such as esophagus.(IARC,2010)
REPRODUCTIVE TOXICITY (Ethanol)	: This product is classified in Category 1 by Ethanol. : Human: fetal alcohol syndrome(PATY(6th,2012))
SPECIFIC TARGET ORGAN TOXICITY - single exposure - (Ethanol)	: This product is classified in Category 3 by Ethanol. : Human: eye and respiratory tract irritation, induce a toxicity and death(PATY(6th, 2012))
SPECIFIC TARGET ORGAN TOXICITY - repeated exposure - (Ethanol)	: This product is classified in Category 3 by Ethanol. : Human: very harmful to all organ, especially liver.(DFGOT vol.12(1999),H SDB (Access on June 2013), SIDS(2005)m PATY(6th,2012))
ASPIRATION HAZARD	: Classification not possible.

12. ECOLOGICAL INFORMATION

ECOTOXICITY(Ethanol)	: Chlorella: EC50>1,000mg/L/96h(SIDS,2005) Daphnia magna: EC50=5,463mg/L/48h(ECETOC TR 91,2003) Oncorhynchus mykiss: LC50=11,200ppm/96h(SIDS,2005)
BIODEGRADABILITY	: BOD=89%
BIOACCUMULATION POTENTIAL	: No data available
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	: 1170
UN PROPER SHIPPING NAME	: Ethanol solution
CLASS	: 3, flammable liquid
PACKING GROUP	: II
ADR/RID	: 1170, ETHANOL SOLUTION
DOT	: 1170, ETHANOL SOLUTION
MARINE POLLUTANT	: Not classified

15. REGULATORY INFORMATION

For classification and labeling of chemicals in accordance with the applicable rules and regulations in the EU or each country, refer to GHS classification of this product (See Section 2).

US REGULATION	: OSHA HCS 2012/29 CFR 1910.1200
EU REGULATION	: CLP Regulation ((EC) No. 1272/2008)

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.