

# SAFETY DATA SHEET

SDS No.1021-15100

Date

November 6, 2017

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## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Methanol  
NAME OF SUPPLIER : 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. : 1021-15100  
SDS No. : 1021-15100  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Flammable liquid : Category 2  
Acute toxicity - oral - : Category 4  
Serious eye damage/eye irritation : Category 2  
Reproductive toxicity : Category 1B  
Specific target organ toxicity (Single exposure) : Category 1(central nervous system, optic organ, systemic toxicity)  
Specific target organ toxicity (Single exposure) : Category 3(anesthesia)  
Specific target organ toxicity (Repeated exposure) : Category 1(central nervous system, optic organ)

HAZARD SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H225 Highly flammable liquid and vapour  
H302 Harmful if swallowed  
H319 Cause serious eye irritation  
H360 May damage fertility or the unborn child  
H370 Cause damage to organs<central nervous system, optic organ, systemic toxicity>  
H336 May cause drowsiness or dizziness  
H372 Cause damage to organs through prolonged or repeated exposure<central nervous system, optic organ>

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 only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P260 Do not breathe fume/gas/mist/vapours.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
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 carbon dioxide to extinguish.
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 contact 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 breathing.
P314	Get medical attention if you feel unwell.
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 IDENTITY	: Methanol
SYNONYMS	: Methyl alcohol
CONTENT	: > 99 %
CHEMICAL FORMULA	: CH3OH
MOLECULAR WEIGHT	: 32.04
CAS No.	: 67-56-1
TSCA INVENTORY	: Listed
EINECS No.	: 200-659-6
EC INDEX No.	: 603-001-00-X

4. FIRST AID MEASURES

GENERAL ADVICE	: Consult a physician. Show this safety data sheet to the doctor in attendance.
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. Consult a physician immediately.
EYE CONTACT	: 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 possible, remove any contact lenses. Consult a physician immediately.
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 immediately.
MOST IMPORTANT SYMPTOMS AND EFFECTS	: Cause cough, dizziness, headache, vomiting, torpor, dysopia by inhalation. Digestion cause visual loss, sometime cause in death.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA	: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
FIRE & EXPLOSION HAZARDS	: Toxic, irritating, dust/fume/smoke may be emitted. Carbon monoxide may be foamed.
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 further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
METHODS FOR CLEAN UP	: Do not touch spilled material without suitable protection. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**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 inhalation of vapour or mist. Avoid prolonged or repeated exposure. Handle this product with suitable protection.  
Wear protections when cutting ample and treating this product.
- STORAGE** : Store away from sunlight, heat and all ignition sources in well-ventilated dry place. Keep container tightly closed. Keep cool(2 ~ 10°C).
- INCOMPATIBLE PRODUCTS** : Strong oxidizers, acids

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

- ENGINEERING MEASURES** : Use exhaust ventilation to keep airborne concentrations below exposure limits.  
Use adequate ventilation.
- VENTILATION** : Local Exhaust ; Necessary, Mechanical(General) ; Necessary
- CONTROL PARAMETERS**
- ACGIH : 200 ppm
- OSHA : 200 ppm
- NIOSH : 100 ppm
- 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

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- APPEARANCE** : Colorless, clear liquid
- ODOR** : Characteristic odor
- pH** : No data available
- BOILING POINT** : approx.65 °C
- MELTING POINT** : -97.8 °C
- FLASH POINT** : 12 °C (TCC)
- EXPLOSIVE LIMITS** : 6.0 ~ 35.6 %
- VAPOR PRESSURE** : 95.2 mmHg(at 20°C)
- VAPOR DENSITY** : 1.11
- SPECIFIC GRAVITY** : 0.7915 g/cm<sup>3</sup> (at 20/4°C)
- SOLUBILITY IN**
- Water : Miscible
- Organic solvent : Miscible
- PARTITION COEFFICIENT ; n-octanol/water** : log Pow: -0.82/-0.66
- AUTOIGNITION TEMPERATURE** : 464 °C
- DECOMPOSITION TEMPERATURE** : No data available

**10. STABILITY AND REACTIVITY**

- REACTIVITY** : Stable under recommended storage conditions.
- CHEMICAL STABILITY** : Deteriorated by sun-light.
- CONDITION TO AVOID** : Sunlight, heat, open flames, high temperature, sparks, static electrical charge, other ignition sources, moisture
- INCOMPATIBLE MATERIALS** : Oxidizers and strong acids
- HAZARDOUS DECOMPOSITION PRODUCTS** : CO, CO<sub>2</sub>, Cl, HCl may be formed.

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**11. TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY -oral-	: Acute toxicity of Methanol affects primates stronger than rodents(EHC 196,1997). rat; LD50=6200mg/kg, 9100mg/kg(EHC 196,1997).
SKIN CORROSION/IRRITATION	: Not irritating for rabbit (DFGOT vol.16,2001)
EYE DAMAGE/EYE IRRITATION	: Draize score; 2.1(average), 2.00(4hr), 0.50(72hr)(EHC 196,1997)
SKIN SENSITIZATION	: Negative (DFGOT vol.16,2001)
GERM CELL MUTAGENICITY	: Negative (EHC 196(1997), DFGOT vol.16(2001), PATTY(5th,2001))
CARCINOGENICITY	: No data available
REPRODUCTIVE TOXICITY	: Effect/damage to rat baby by inhalation (PATTY (5th,2001), EHC 196(1997), DFGO T vol.16(2001), NTP-CERHR Monograph(2003)).
SPECIFIC TARGET ORGAN TOXICITY - single exposure -	: Central nervous depression (acute toxicity), metabolic acidosis, visual defect, blindness, headache, dizziness, vomiting, narcosis, death(DFGOT vol.16, 2001).
SPECIFIC TARGET ORGAN TOXICITY - repeated exposure -	: Disorder of the eye, blindness(EHC 196(1997), ACGIH(7th,2001)).
ASPIRATION HAZARD	: No data available

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**12. ECOLOGICAL INFORMATION**

ECOTOXICITY	: Brine shrimp; LC50=1,340 mg/L,96h (EHC 196,1998) Bluegill; LC50=1,540 mg/L,96h(EHC 196,1998)
BIODEGRADABILITY	: No data available
BIOACCUMULATIVE POTENTIAL	: Water solubility; 1,000,000 mg/L (PHYSPROP Database, 2009)
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	: 1230
UN PROPER SHIPPING NAME	: Methanol
CLASS	: 3, flammable liquid (6.1, toxic substances)
PACKING GROUP	: II
ADR/RID	: 1230, Methanol, II
DOT	: 1230, Methanol, II
MARINE POLLUTANT	: No

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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.