

SAFETY DATA SHEET

SDS No.1021-21110

Revised Date February 23, 2015 1/4 page

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Dichloromethane
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. : 1021-21110
SDS No. : 1021-21110
Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Acute toxicity - oral - : Category 4
Skin corrosion/irritation : Category 2
Eye damage/irritation : Category 2A
Carcinogenicity : Category 2
Specific target organ toxicity (single exposure) : Category 1 <central nervous system>
<respiratory organ>
Specific target organ toxicity (single exposure) : Category 3 <anesthesia>
Specific target organ toxicity (repeated exposure) : Category 1 <central nervous system>
<liver>
Hazardous to the aquatic environment –acute hazard : Category 2
Hazardous to the aquatic environment –chronic hazard : Category 2

HAZARDS SYMBOL :



SIGNAL WORD : Danger

HAZARD STATEMENTS :

H302 Harmful if swallowed
H315 Cause skin irritation
H319 Cause serious eye irritation
H351 Suspected of causing cancer
H370 Cause damage to organs
H336 May cause drowsiness or dizziness
H372 Cause damage to organs through prolonged or repeated exposure
H401 Toxic to aquatic life
H411 Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS :

P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathing 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.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of water.

P332+P313	If skin irritation occurs: Get medical attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
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+P311	IF exposed or concerned: Call a POISON CENTER or doctor.
P314	Get medical attention if you feel unwell.
P391	Collect spillage.
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	: Dichloromethane
SYNONYMS	: Methylene Chloride; DCM
CHEMICAL FOMULA	: CH ₂ Cl ₂
CONTENT	: > 99 %
MOLECULAR WEIGHT	: 84.93
CAS No.	: 75-09-2
TSCA INVENTRY	: Listed
EINECS No.	: 200-838-9
EC INDEX No.	: 602-004-00-3
IMPURITIES AND STABILIZING ADDITIVES	: Stabilizers(2-Methyl-2-butene); 0.001-0.005%

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. Consult a physician.
INGESTION	: Rinse mouth. Never give anything by mouth to an unconscious person. Consult 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	: Fireman 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. 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

HANDLING	: Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Handle material 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 dry place. Keep container tightly closed.
INCOMOPATIBLE PRODUCTS	: Oxidizers, strong alkalis, metals, plastics, and rubbers

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 : 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 : TWA 25ppm, STEL 125ppm, action level= 12.5ppm Skin hazard
- ACGIH : TWA 50ppm(174mg/m³)

9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE : Colorless clear liquid
- ODOR : Characteristic odor
- pH : No data available
- BOILING POINT : approx.40°C
- MELTING POINT : -96.7°C
- FLASH POINT : No data available
- FLAMMABILITY : Lower; 15.5%, Upper; 66%
- AUTOIGNITION TEMPERATURE : 556°C
- VAPOR PRESSURE : 47.4kPa (20°C)
- VAPOR DENSITY : 2.93
- SPECIFIC GRAVITY : 1.320~1.330 (20°C)
- SOLUBILITY IN
- WATER : Insoluble
- Organic solvent : Soluble
- PARTITION COEFFICIENT: n-octanol/water : 1.25
- DECOMPOSITION TEMPERATURE : No data available

10. STABILITY AND REACTIVITY

- REACTIVITY : Reacts with light metal, bases, strong oxidants.
- CHEMICAL STABILITY : Decomposes on air, moisture, sunlight.
- CONDITION TO AVOID : Heat, sunlight
- INCOMPATIBLE MATERIALS : Oxidizers, strong alkalis, metals, plastics, and rubbers
- HAZARDOUS DECOMPOSITION PRODUCTS : CO, CO₂, Hydrogen chloride, chlorine, phosgene

11. TOXICOLOGICAL INFORMATION

- ACUTE TOXICITY -oral- : rat - LD50=1,600mg/kg(EHC 128,1991)
- SKIN CORROSION/IRRITATION : No data available
- EYE DAMAGE/EYE IRRITATION : Eye; rabbit; 162mg/24H; Mild
- GERM CELL MUTAGENICITY : No data available
- CARCINOGENICITY : NTP(R), IARC(2B), ACGIH(A3), EPA(B2)
- REPRODUCTIVE TOXICITY : No data available
- SPECIFIC TARGET ORGAN TOXICITY-single exposure : "Cynosis", "Loss of precaution and progress, headache, pain in chest, impaired orientation, loss of time sense and amnesia, the excitement of spiritlessness and feebleness", and "Decrease of critical flicker frequency of visual function inspections", "Influence (trouble of confusion and compound precaution pursuit action of caution)of nerve behavioristic" and "Edema with hemorrhage of lungs and inflammation of skin: Pneumonia with stiffening and large cerebral edema with small brain tonsil hernia"(CERI, NITE hazard report No.15 2004)

SPECIFIC TARGET ORGAN TOXICITY-repeated exposure

: By a brain wave examination, lose one's breath, on-again headache, nau sea, and eye's flicker, and transitory memory disturbance, and a trouble of a right brain.(CERI, NITE hazard report No. 15, 2004) "The encephalo pathy fraught with the auditory hallucination and optical illusion, "It is deg eneration of both sides transitory temporal lobe" "Disturbance of memory and sense of equilibrium loss, accompanied the intelligence disorder."(HS DB, 2000)

ASPIRATION TOXICITY : No data available

12. ECOLOGICAL INFORMATION

ECOTOXICITY : Fathead minnow: LC50=5.2mg/L/96hr(EHC164,1996)
BIODEGRADABILITY : BOD 13%
BIOACCUMULATION POTENTIAL : This material is not bioaccumulatable.
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 : 1593
UN PROPER SHIPPING NAME : Dichloromethane
CLASS or DIVISION : 6.1,
PACKING GROUP : III
ADR/RID : 1593, Dichloromethane
DOT : 1593, Dichloromethane
MARINE POLLUTANT : Classified

15. REGULATORY INFORMATION

US REGULATIONS : Labeling according to US 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.