SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, amended by 2015/830/EU

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the product

Product Description	Methylene Dichloride
Synonym	Dichloromethane
Pure Substance/preparation	Substance
CAS Number	75-09-2
EC Number	200-838-9

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses	Laboratory chemical, Manufacture of substances
Uses advised against	No uses advised against has been identified

1.3 Details of the Supplier of the Safety Data Sheet

Gujrat Fluorochemicals Ltd.
12/A Dahej Industrial Estate, Taluka Vagra,
Distt. Bharuch-392130, Gujrat, India

Website	www.gfl.co.in
Telephone	+91-2641-618031(Admin)/618041-50(Purchase)/618086-87(Security)
Fax	+91-2641-618012
E-mail address	contact@gfl.co.in

1.4 Emergency Telephone Number

Emergency telephone number	+91-2641-618086-87 (Security)

2. Hazard Identification

2.1 Classification of the substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification acc. to GHS

Skin corrosion / Irritation	Category 2 - (H315)
Eye damage / irritation	Category 2 - (H319)
Carcinogenicity	Category 2 - (H351)
Specific target organ toxicity - Single (STOT- SE)	Category 3 - (H336)

2.2 Label elements

Pictogram

Signal Word
Warning

Hazard Statements
H315 Causes skin irritation
H319 Causes serious eye irritation
H351 Suspected of causing cancer
H336 May cause drowsiness of dizziness

Precautionary Statements

Prevention
P201 Obtain special instruction before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing mist/vapours/spray
P264 Wash face, hands and exposed skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response
P308+P313 IF exposed or concerned: Get medical advice/attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P332+P313 If skin irritation occurs: Get medical advice/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 advice/attention.
P311 Call a POISON CENTER or doctor/physician.

Storage
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal
P501 Dispose of contents/container to comply with local, state and federal regulation.

2.3 Other hazards

The substance does not meet the criteria for a PBT or vPvB substance

3. Composition/information on Ingredients

3.1. Substance

Chemical name	CAS-No	EC No	Weight %	EU - GHS Substance Classification (REGULATION (EC) No 1272/2008)	REACH No.
Methylene Dichloride	75-09-2	200-838-9	<=100	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336	-

For the full text of the H-Statements mentioned in this Section, see Section 16

4. First aid measures

4.1 Description of first-aid measures

General advice In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin contact Wash off immediately with soap and plenty of water for at least for 15 minutes. Take off contaminated clothing and wash before reuse. Seek immediate medical attention/advice.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Causes central nervous system depression. Continued or high exposures by inhalation will cause anaesthetic effects. This may result in a loss of consciousness and could prove fatal. Causes formation of carbon monoxide in the blood. Carbon monoxide may cause adverse effect on the cardiovascular system and the central nervous system.

Indication of immediate medical attention and special treatment needed

Treat symptomatically and supportively.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Use extinguishing media appropriate for circumstances and the surrounding environment.

Unsuitable extinguishing media High pressure water jets sprays

5.2 Special hazards arising from the substance or mixture

Special Hazard	Thermal decomposition can lead to release of irritating gases and vapours. Keep product and empty container away from heat and source of ignition.
Hazardous Combustion Products	Hazardous decomposition products formed under fire conditions: Carbon monoxide (CO), Carbon dioxide (CO2), Phosgene, Hydrogen chloride gas

5.3 Advice for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8. Avoid contact with skin, eyes and inhalation of vapours. Use personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment. In case of leak, wear a self-contained breathing apparatus.

6.2 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.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
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6.4 Reference to other sections

Hazardous combustion products: see section 10. Personal Protective equipment: See section 8. Incompatible materials: see section 8. Incompatible Material: see section 10. Disposal Consideration: see section 13

7. Handling and Storage

7.1 Precautions for Safe Handling

7.1.1 Handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Vapors are heavier than air and may spread along floors. Handle product only in closed system or provide appropriate exhaust ventilation. Reacts with aluminum and its alloys.

7.1.2 Hygiene measures

Prohibit contact with skin and eyes and inhalation of vapours. When using do not eat, drink or smoke. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry, cool and well-ventilated place. Store protected from moisture and heat. Do not store in aluminum container.

Incompatible products: Strong oxidizing agents, strong acids and amines

7.3 Specific end uses

Laboratory chemical, Manufacture of substances.

8. Exposure Controls/ Personal Protection

8.1 Control Parameters

Exposure Limits Apply technical measures to comply with the occupational exposure

Component	European Union	The United Kingdom	France	Belgium
Methylene Dichloride (CAS: 75-09-2)	TWA: 353 mg/m3 (15min) TWA: 100 ppm (15min) STEL: 706 mg/m3 (8h) STEL: 200 ppm (8h) Skin	STEL: 200 ppm (15 min) STEL: 706 mg/m3 (15min) TWA: 353 mg/m3 (8h) TWA: 100 ppm (8h) Skin	TWA / VME: 50 ppm (8 heures). restrictive limit TWA / VME: 178 mg/m3 (8 heures). restrictive limit STEL / VLCT: 100 ppm. restrictive limit STEL / VLCT: 356 mg/m3 . restrictive limit Peau	TWA: 50 ppm 8 uren TWA: 177 mg/m3 8 uren STEL: 200 ppm 15 minuten STEL: 706 mg/m3 15 minuten Huid

Derived No Effect level (DNEL) No information available

Predicted No Effect Concentration No information available

8.2 Exposure Controls

Appropriate Engineering Control Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

Eye protection Use tightly sealed safety glasses. (European Standard - EN 166)

Skin protection Impervious long-sleeved clothing. Preventative skin protection is recommended.

Hand protection Protective gloves
Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitization effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly.

Large Scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: low boiling organic solvent Type AX Brown conforming to EN371

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Colorless liquid
Physical state	Liquid
Odor	aromatic sweet
Odor threshold	No information available

Property	VALUES	Remarks/ Method
pH	No information available	
Melting point/freezing point	-95 °C at 101325 kPa	
Boiling Point/Range	40°C at 101.3kPa	
Flash Point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	Not applicable	
Flammability or explosive limits		
Upper	22 vol%	
Lower	13 vol%	
Relative Density	1.32 g/cm3 at 25 °C	
Vapor Density	No information available	
Vapor pressure (air = 1)	584 hPa at 25°C (352 mm Hg)	
Water solubility	13.2 g/L	
Solubility in Other Solvents	No information available	
Partition coefficient: n-octanol/water	Log Kow = 1.25 at 20°C	
Autoignition temperature	605 °C at 101.3 kPa	
Decomposition temperature	No information available	
Viscosity Kinematics	No information available	
Viscosity Dynamics	0.42 mPa.s at 25 °C	
Oxidizing properties	No information available	
Explosive properties	Non explosive	
Molecular Formula	CH_2Cl_2	
Molecular Weight	84.93	

9.2 OTHER INFORMATION

VOC Content No information available

10. Stability and Reactivity

10.1 Reactivity

None Known, based on information available.

10.2 Chemical stability

Stable under normal conditions, Decomposes on exposure to light.

10.3 Possibility of hazardous reaction

Hazardous polymerization does not occur.
Forms a detonable mixture with nitric acid.

10.4 Conditions to avoid

Excess heat. Protect from direct sunlight.

10.5 Incompatible Materials

Strong oxidizing agents, strong acids and amines

10.6 Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions:
Carbon monoxide (CO), Carbon dioxide (CO_2), Phosgene, Hydrogen chloride gas

11. Toxicological Information

11. 1 Information on Toxicological Effects

Acute toxicity

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methylene Dichloride (CAS: 75-09-2)	>2000 mg/kg	>2000 mg/kg	86 mg/L (4hour)

Source: ECHA

Local effect

Inhalation May cause drowsiness or dizziness
Eye contact Causes serious eye irritation
Skin contact Causes skin irritation
Ingestion Based on available information, the classification criteria are not met.

Chronic toxicity

Skin Corrosion/Irritation Causes skin irritation
Eye damage/irritation Causes serious eye irritation
Sensitization Based on available information, the classification criteria are not met.
Mutagenic effects Not classifiable
Carcinogenic effects Suspected of causing cancer
Reproductive effects Based on available information, the classification criteria are not met.
STOT - Single Exposure May cause drowsiness or dizziness.
STOT - repeated exposure Based on available information, the classification criteria are not met.
Aspiration hazard Based on available information, the classification criteria are not met.

12. Ecological Information

12.1 Ecotoxicity

Chemical Name	Toxicity to Fish	Toxicity to Daphnia and other aquatic invertebrate	Toxicity to Algae
Methylene Dichloride (CAS: 75-09-2)	LC50: 193 mg/L (96hr)	EC50(48hr) : 27 mg/L	EC10 : 550 mg/L

Source: ECHA

12.2 Persistence and Degradability

Persistence is unlikely, based on available information.

12.3 Bioaccumulative Potential

Log Kow = 1.25 at 20°C
Bioconcentration factor (BCF): 6.4 - 40

Bioaccumulation is unlikely.

12.4 Mobility in Soil

Product contains volatile organic compounds (VOC) which will evaporate easily from all the surfaces. Will likely be mobile in environment due to its mobility. Disperses rapidly in air.

12.5 Results of PBT and vPvB Assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other Adverse Effects

No other adverse effects identified.

13. Disposal Considerations

13.1 Waste Treatment Methods

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse empty containers. Dispose of this container to hazardous or special waste collection point.

14. Transport Information

IMDG/IMO

UN-No	UN 1593
Proper Shipping name	Dichloromethane
Hazard class	6.1
Packing group	III
Environmental Hazard	No

IATA/ICAO

UN-No	UN 1593
Proper Shipping name	Dichloromethane
Hazard class	6.1
Packing group	III
Environmental Hazard	No

15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

International Inventories

TSCA	Complies
EINECS/ ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AICS	Complies
KECL	Complies

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Dichloromethane (CAS 75-09-2)	-	Use restricted. See item 59. Substances restricted under REACH - ECHA (europa.eu)	-

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

16. Other Information

Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation
H319 Causes serious eye irritation
H351 Suspected of causing cancer
H336 May cause drowsiness of dizziness

Preparation Date 27-October-2021
Revision Date 27-October-2021
Revision Note Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

End of Safety Data Sheet