

SAFETY DATA SHEET

1. Identification

Product identifier: METHYLENE CHLORIDE

Other means of identification

Product No.: 9428, Q480, 9350, 9348, 9329, 9324, 9315, 9295, 9266, 9264, 4874, 12229

Recommended use and restriction on use

Recommended use: Not available.

Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company Name: Avantor Performance Materials, Inc.
Address: 3477 Corporate Parkway, Suite 200
Center Valley, PA 18034

Telephone: Customer Service: 855-282-6867

Fax:
Contact Person: Environmental Health & Safety
e-mail: info@avantormaterials.com

Emergency telephone number:

24 Hour Emergency: 908-859-2151

Chemtrec: 800-424-9300

2. Hazard(s) identification

Hazard classification

Health hazards

Acute toxicity (Oral)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity - single exposure	Category 3

Label elements

Hazard symbol:



Signal word: Warning

Hazard statement: Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
May cause respiratory irritation.
May cause drowsiness or dizziness.

Precautionary statement

- Prevention:** Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray.
- Response:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Substances

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*
DICHLOROMETHANE		75-09-2	98 - 100%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

- General information:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Ingestion:** Rinse mouth thoroughly. Call a POISON CENTER or doctor/physician if you feel unwell.
- Inhalation:** Move to fresh air. Get medical attention if symptoms persist.
- Skin contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Most important symptoms/effects, acute and delayed

- Symptoms:** Harmful if swallowed. Irritating to eyes, respiratory system and skin.
- Hazards:** Narcotic effect.

Indication of immediate medical attention and special treatment needed

- Treatment:** Symptoms may be delayed.

5. Fire-fighting measures

General fire hazards: Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: In case of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unauthorized personnel away. Use personal protective equipment. See Section 8 of the MSDS for Personal Protective Equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures: Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

Environmental precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling: Use personal protective equipment as required. Avoid breathing mists or vapors. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. See Section 8 of the MSDS for Personal Protective Equipment.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed. Store in a well-ventilated place. Store in a dry place.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
DICHLOROMETHANE	TWA	50 ppm	US. ACGIH Threshold Limit Values (2011)
	TWA	25 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (02 2006)
	STEL	125 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (02 2006)
	OSHA_ACT	12.5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (02 2006)

Biological limit values

Chemical identity	Exposure Limit values	Source
DICHLOROMETHANE (dichloromethane: Sampling time: End of shift.)	0.3 mg/l (Urine)	ACGIH BEL (2011)

Appropriate engineering controls

No data available.

Individual protection measures, such as personal protective equipment

- General information:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.
- Eye/face protection:** Wear safety glasses with side shields (or goggles) and a face shield.
- Skin protection**
- Hand protection:** Chemical resistant gloves
- Other:** Wear suitable protective clothing.
- Respiratory protection:** In case of inadequate ventilation use suitable respirator.
- Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

- Physical state:** Liquid
- Form:** Liquid
- Color:** Colorless
- Odor:** Pleasant sweet odor
- Odor threshold:** No data available.
- pH:** No data available.
- Melting point/freezing point:** -95 °C
- Initial boiling point and boiling range:** 39 °C (101.3 kPa)
- Flash Point:** Not applicable

Evaporation rate:	0.71 ether=1
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	66.4 %(V)
Flammability limit - lower (%):	15.5 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	58.00 kPa (25 °C)
Vapor density:	2.93 AIR=1.02
Relative density:	1.32 (20 °C)
Solubility(ies)	
Solubility in water:	20 g/l
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	1.25
Auto-ignition temperature:	566.1 °C
Decomposition temperature:	No data available.
Viscosity:	No data available.
Other information	
Molecular weight:	84.93 g/mol (CH ₂ Cl ₂)

10. Stability and reactivity

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Hazardous polymerization does not occur.
Conditions to avoid:	Excessive heat. Moisture.
Incompatible materials:	Strong oxidizing agents. Acids. Caustics. Aluminum. Chemically active metals. May attack some plastics, rubber and coatings.
Hazardous decomposition products:	Oxides of Carbon. Hydrogen Chloride. Phosgene.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	Harmful if swallowed.
Inhalation:	May cause irritation to the respiratory system.
Skin contact:	Causes skin irritation.
Eye contact:	Causes serious eye irritation.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	LD 50 (Rat): 1,600 mg/kg
Dermal Product:	No data available.

Inhalation
Product: LC 50 (Rat, 6 h): 52 mg/l
 LC 50 (Mouse, 6 h): 49.1 mg/l

Repeated dose toxicity
Product: No data available.

Skin corrosion/irritation
Product: No data available.

Serious eye damage/eye irritation
Product: No data available.

Respiratory or skin sensitization
Product: Not a skin sensitizer.

Carcinogenicity
Product: Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

DICHLOROMETHA Overall evaluation: 2B. Possibly carcinogenic to humans.
 NE

US. National Toxicology Program (NTP) Report on Carcinogens:

DICHLOROMETHA Reasonably Anticipated to be a Human Carcinogen.
 NE

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ cell mutagenicity

In vitro
Product: No mutagenic components identified

In vivo
Product: No mutagenic components identified

Reproductive toxicity
Product: No components toxic to reproduction

Specific target organ toxicity - single exposure
Product: Narcotic effect.

Specific target organ toxicity - repeated exposure
Product: None known.

Aspiration hazard
Product: Not classified

Other effects: None known.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 140.8 mg/l

Aquatic invertebrates

Product: EC 50 (Water flea (*Daphnia magna*), 48 h): 1,250 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and degradability

Biodegradation

Product: Expected to biodegrade slowly.

BOD/COD ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration factor (BCF)

Product: No data available on bioaccumulation.

Partition coefficient n-octanol / water (log Kow)

Product: Log Kow: 1.25

Mobility in soil:

No data available.

Other adverse effects:

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Disposal considerations

Disposal instructions:

Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated packaging:

Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number:	UN 1593
UN proper shipping name:	Dichloromethane
Transport hazard class(es)	
Class(es):	6.1
Label(s):	6.1
Packing group:	III
Marine Pollutant:	No

IMDG

UN number: UN 1593
 UN proper shipping name: DICHLOROMETHANE
 Transport hazard class(es)
 Class(es): 6.1
 Label(s): 6.1
 EmS No.: F-A, S-A
 Packing group: III
 Marine Pollutant: No

IATA

UN number: UN 1593
 Proper Shipping Name: Dichloromethane
 Transport hazard class(es):
 Class(es): 6.1
 Label(s): 6.1
 Marine Pollutant: No
 Packing group: III

15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
 None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):
 DICHLOROMETHANE Reportable quantity: 1000 lbs.

Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories

Acute (Immediate) Chronic (Delayed) Fire Reactive Pressure Generating

SARA 302 Extremely hazardous substance
 None present or none present in regulated quantities.

SARA 304 Emergency release notification

Chemical identity	RQ
DICHLOROMETHANE	1000 lbs.

SARA 311/312 Hazardous chemical

Chemical identity	Threshold Planning Quantity
DICHLOROMETHANE	500 lbs

SARA 313 (TRI reporting)

Chemical identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
DICHLOROMETHANE	10000 lbs	25000 lbs.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
 None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
 None present or none present in regulated quantities.

Disclaimer:

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