

Material Safety Data Sheets

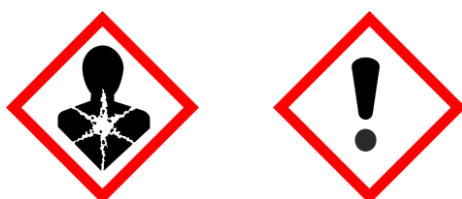
1. IDENTIFICATION

Product Name	Methylene Chloride
Other Names	Dichloromethane; Methane, dichloro-
Code No	100-DM-2
Uses	Aerosol, Metal Cleaning Solvent, Urethane Foaming Solvent, Reaction solvent of polycarbonate.
Chemical Family	No Data Available
Chemical Formula	CH ₂ Cl ₂
Chemical Name	Methylene Chloride
Product Description	No Data Available
Company	Arman sina.co
Contact Information	info@armansina.com www.armansina.com

2. HAZARD IDENTIFICATION

Hazard Categories	Harmful
Risk Phrases	Possible risk of irreversible effects.
Safety Phrases	Do not breathe fumes/vapour. Avoid contact with skin and eyes. Wear suitable protective clothing and gloves.

Symbol



3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Dichloromethane	CH ₂ Cl ₂	75-09-2	>99.50 %
Trichloromethane	CHCl ₃	67-66-3	<1.00 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	Rinse mouth with water. Give water to drink provided victim is conscious. Do NOT induce vomiting. Avoid vomiting and normal rinse of stomach because of risk of aspiration. Get medical attention immediately!
Eye	Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Get medical attention immediately. Continue to rinse.
Skin	Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if any discomfort continues.
Inhaled	Remove victim from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately!
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient. In case of ingestion: Give activated charcoal in slurry. MEDICAL SYMPTOMS: Skin irritation. Upper respiratory irritation. Drowsiness, dizziness, disorientation, vertigo. Nausea, vomiting. Unconsciousness. Central nervous system depression. Carcinogenic Substance Category 3. Limited evidence of a carcinogenic effect.
Medical Conditions Aggravated by Exposure	SPECIFIC EFFECTS: May cause damage to the liver and kidneys.

5. FIRE FIGHTING MEASURES

General Measures	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
Flammability Conditions	Product is a non-flammable liquid
Extinguishing Media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Fire and Explosion Hazard	Vapours are heavier than air and may spread near ground to sources of ignition.
Hazardous Products of Combustion	If heated, corrosive and toxic vapours/gases may be formed.
Special Fire Fighting Instructions	HAZCHEM: 2Z Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.
Flash Point	No Data Available
Lower Explosion Limit	13 %
Upper Explosion Limit	22 %
Auto Ignition Temperature	No Data Available
Hazchem Code	2Z

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Avoid accidents, clean up immediately. Slippery when spilt. Personnel involved in the clean up should wear full protective clothing as listed in section 8. Eliminate all sources of ignition. Increase ventilation. Use clean, non-sparking tools and equipment.
Clean Up Procedures	Soak up spilled product using absorbent non-combustible material such as sand or soil. When saturated, collect the material and transfer to a suitable, labelled chemical waste container and dispose of promptly as hazardous waste.
Containment	Stop leak if safe to do so.
Environmental Precautionary Measures	Do not allow product to reach drains, sewers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.
Evacuation Criteria	Evacuate all unnecessary personnel.

7. HANDLING AND STORAGE

Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Avoid spilling. Keep away from heat, sparks and open flame. Risk of vapour concentration on the floor and in low-lying areas.
Storage	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Keep away from heat, sparks and open flame. Protect from light, including direct sunrays. Store in a cool place. This product has a UN classification of 1593 and a Dangerous Goods Class 6.1 (Toxic) according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	The following exposure standards have been established by The Australian Safety and Compensation Council (ASCC) for the components;					
	Product Name: Methylene chloride CAS number: 75-09-2		TWA = 50ppm (174mg/m3)			
	The following information has also been provided:					
	Name	STD	TWA - 8 Hrs		STEL - 15 Min	
	DICHLOROMETHANE	WEL	100 ppm(Sk)	350 mg/m3(Sk)	300 ppm(Sk)	1060mg/m3(Sk)
	TRICHLOROMETHANE	WEL	2 ppm	9.9 mg/m3		
	WEL = Workplace Exposure Limit.					
Exposure Limits	No Data Available					
Biological Limits	No information available on biological limit values for this product.					
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded.					
Personal Protection Equipment	RESPIRATOR: Use respiratory equipment with gas filter, type AX (AS1715/1716). EYES: Wear approved safety goggles (AS1336/1337). HANDS: Protective gloves should be used if there is a risk of direct contact or splash. Viton rubber (fluor rubber) (AS2161). CLOTHING: Chemical-resistant coveralls, splash apron and safety footwear (AS3765/2210).					
Work Hygienic Practices	Provide eyewash station and safety shower.					

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	Sweetish
Colour	Colourless
pH	No Data Available
Vapour Pressure	475 °C
Relative Vapour Density	2.93 Air = 1
Boiling Point	40 °C
Melting Point	-95 °C
Freezing Point	No Data Available
Solubility	No Data Available
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available

Evaporation Rate	1.9 EtOH=1
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	1.33 Relative
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	1.25
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	0.43 mPa.S (20°C) (@ No Data Available)
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	Product is a liquid.
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	Vapours are heavier than air and may spread near ground to sources of ignition.
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Avoid exposure to high temperatures or direct sunlight.
Materials to Avoid	Alkali metals. Strong acids. Organic - aromatic. Alkali earth metals. Powdered metal. Amides. Organic peroxides/hydroperoxides.
Hazardous Decomposition Products	Hydrogen chloride (HCl). Phosgene (COCl ₂).
Hazardous Polymerisation	Will not polymerise.

11. TOXICOLOGICAL INFORMATION

General Information	TOXIC DOSE 1 - LD50 1600 mg/kg (oral rat) TOXIC CONC. - LC50 88 (30 min.) ppm/-- (ihl-rat) GENERAL INFORMATION: Known or suspected carcinogen for humans. MEDICAL SYMPTOMS: Skin irritation. Upper respiratory irritation. Drowsiness, dizziness, disorientation, vertigo. Nausea, vomiting. Unconsciousness. Central nervous system depression.
Eyelrritant	Irritating to eyes.

Ingestion	Harmful if swallowed. May cause liver and/or renal damage.
Inhalation	Irritating to respiratory system.
Skin/Irritant	Irritating to skin.
Carcinogen Category	No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity	LC 50, 96 Hrs, FISH mg/l 193 EC 50, 48 Hrs, DAPHNIA, mg/l 1682 IC 50, 72 Hrs, ALGAE, mg/l 660
Persistence/Degradability	The product is not readily biodegradable.
Mobility	No Data Available
Environmental Fate	Do NOT let product reach waterways, drains and sewers.
Bioaccumulation Potential	The product does not contain any substances expected to be bioaccumulating.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of in accordance with all local regulations. All empty packaging should be disposed of in accordance with Local Regulations or recycled/reconditioned at an approved facility.
Special Precautions for Land Fill	Contact a specialist disposal company or the local waste regulator for advice. Incinerate at an approved site following all local regulations in suitable combustion chamber.

14. TRANSPORT INFORMATION

Land Transport

Proper Shipping Name	DICHLOROMETHANE
Class	6.1 Toxic and Infectious Substances - Toxic Substances
Subsidiary Risk(s)	No Data Available
ERG	160 Halogenated Solvents
UN Number	1593
Hazchem	2Z
Pack Group	III
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	DICHLOROMETHANE
Class	6.1 Toxic and Infectious Substances - Toxic Substances
Subsidiary Risk(s)	No Data Available
UN Number	1593
Hazchem	2Z
Pack Group	III
Special Provision	No Data Available
EMS	FA,SA
Marine Pollutant	No

Air Transport IATA

Proper Shipping Name	DICHLOROMETHANE
Class	6.1 Toxic and Infectious Substances - Toxic Substances
Subsidiary Risk(s)	No Data Available
UN Number	1593
Hazchem	2Z
Pack Group	III
Special Provision	No Data Available

15. OTHER INFORMATION

Revision	2
Key/Legend	< Less Than > Greater Than atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm Square Centimetres CO₂ Carbon Dioxide COD Chemical Oxygen Demand Degrees Celcius Degrees Farenheit g Grams g/cm Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH₂O Inch of Water K Kelvin kg Kilogram kg/m Kilograms per Cubic Metre lb Pound LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. ltr or L Litre m Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH₂O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Heath and Safety Commission OECD Organisation for Economic Co-operation and Development Oz Ounce PEL Permissible Exposure Limit Pa Pascal ppb Parts per Billion ppm Parts per Million ppm/2h Parts per Million per 2 Hours ppm/6h Parts per Million per 6 Hours psi Pounds per Square Inch R Rankine RCP Reciprocal Calculation Procedure STEL Short Term Exposure Limit TLV Threshold Limit Value tne Tonne TWA Time Weighted Average ug/24H Micrograms per 24 Hours UN United Nations wt Weight