

ANDREW METHYLENE CHLORIDE

Chemwatch Material Safety Data Sheet
 For Domestic Use Only.
 Issue Date: 12-Jun-2007
 XC9477SD

CHEMWATCH 1593
 Version No:2.0
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ANDREW METHYLENE CHLORIDE

STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

OTHER NAMES

C-H2-Cl2, dichloromethane, "methylene bichloride", "methylene dichloride", NCI-C50102, "methane dichloride", "Aerothene MM", DCM, Solaesthin, Solmethine, Narkotil, "RCRA Waste Number U080", "R 30", "Restek Grob Test Mix", 24/R1325, "Product Code 270563"

PROPER SHIPPING NAME

DICHLOROMETHANE

PRODUCT USE

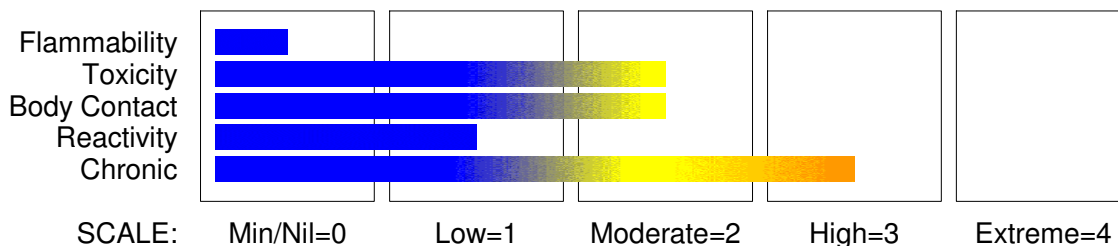
» The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.
 Solvent for cellulose acetate, plastics and fats.
 Component of degreasing agents, cleaning fluids and paint removers.
 A blowing agent in foams, as an aerosol propellant, and a cooling solvent.

SUPPLIER

Company: Damar Industries Limited
 Address:
 Eastgate Business Park
 800 Te Ngae Road
 Rotorua
 Telephone: +64 7 345 6007
 Emergency Tel: 0800 2436 2255
 Emergency Tel: 0800 CHEMCALL
 Fax: +64 7 345 6019

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS



GHS Classification

Acute Toxicity (Oral) Category 4
 Carcinogen Category 2
 Eye Irritation Category 2A
 Organ Damage single exposure Category 2
 Skin Corrosion/Irritation Category 2

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Section 2 - HAZARDS IDENTIFICATION



EMERGENCY OVERVIEW

HAZARD

WARNING

Gazetted by ERMANZ:

6.1D 6.3A 6.4A 6.7B 6.9B 9.3C

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

Suspected of causing cancer

May cause damage to organs by skin contact.

Harmful to terrestrial vertebrates

PRECAUTIONARY STATEMENTS

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

Response

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue

rinsing.

IF exposed or concerned: Get medical advice/ attention.

IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

Rinse mouth.

If eye irritation persists: Get medical advice/attention.

Storage

Store locked up.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
methylene chloride	75-09-2	> 99

Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

SWALLOWED

• For advice, contact a Poisons Information Centre or a doctor at once.

• Urgent hospital treatment is likely to be needed.

Avoid giving milk or oils.

Avoid giving alcohol.

EYE

» If this product comes in contact with the eyes:

• Wash out immediately with fresh running water.

• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

SKIN

» If skin contact occurs:

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Section 4 - FIRST AID MEASURES

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

» Treat symptomatically.

for intoxication due to Freons/ Halons;

A: Emergency and Supportive Measures

- Maintain an open airway and assist ventilation if necessary
- Treat coma and arrhythmias if they occur. Avoid (adrenaline) epinephrine or other sympathomimetic amines that may precipitate

ventricular arrhythmias. Tachyarrhythmias caused by increased myocardial sensitisation may be treated with propranolol, 1-2 mg IV

or esmolol 25-100 microgm/kg/min IV.

For acute or short term repeated exposures to methylene chloride:

- Methylene chloride is well absorbed by the lung. An 8 hour exposure to 250 ppm causes carboxyhaemoglobin levels to exceed 8%.

Physical exertion and smoke produce an additive effect.

- The lungs exhale most of the absorbed dose unchanged. Between 1/4 and 1/3 is metabolised to carbon monoxide / dioxide. 5 hours

of 100% oxygen is required, typically, to reduce the carboxyhaemoglobin level from 13% to 7.5%.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Water spray or fog.
- Foam.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 800 metres in all directions.

FIRE/EXPLOSION HAZARD

» Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

May emit poisonous fumes.

- Non flammable liquid.
- However vapour will burn when in contact with high temperature flame.

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.

MAJOR SPILLS

- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

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Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
 - Wear protective clothing when risk of exposure occurs.
- Contains low boiling substance:
Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.
- Check for bulging containers.
 - Vent periodically.
 - DO NOT allow clothing wet with material to stay in contact with skin.

SUITABLE CONTAINER

- DO NOT use aluminium or galvanised containers.
 - Lined metal can, lined metal pail/ can.
 - Plastic pail.
- For low viscosity materials
- Drums and jerricans must be of the non-removable head type.
 - Where a can is to be used as an inner package, the can must have a screwed enclosure.

STORAGE INCOMPATIBILITY

- » Segregate from:
- powdered metals such as aluminium, zinc and
 - alkali metals such as sodium, potassium and lithium.
- Segregate from alcohol, water.
- Avoid magnesium, aluminium and their alloys, brass and steel.
 - Avoid reaction with oxidising agents.
- In the presence of moisture and at higher temperatures material breaks down generating hydrochloric acid, which may corrode and perforate containers.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³
New Zealand Workplace Exposure Standards (WES)	methylene chloride (Methylene chloride)	50	174

PERSONAL PROTECTION



RESPIRATOR

Type AX Filter of sufficient capacity

EYE

- Safety glasses with side shields.
- Chemical goggles.

HANDS/FEET

- Wear chemical protective gloves, eg. PVC.
 - Wear safety footwear or safety gumboots, eg. Rubber.
- Suitability and durability of glove type is dependent on usage. Factors such as:
- frequency and duration of contact,
 - chemical resistance of glove material,

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

» Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Colourless non flammable liquid; does not mix with water. Highly volatile.
Has a penetrating, ether-like odour. Mixes with alcohol, organic solvents.

PHYSICAL PROPERTIES

Liquid.

Molecular Weight: 84.93
Melting Range (°C): - 97
Solubility in water (g/L): 2.0%
pH (1% solution): Not applicable.
Volatile Component (%vol): 100
Relative Vapour Density (air=1): 2.93
Lower Explosive Limit (%): 14- oxygen rich
Autoignition Temp (°C): 662
State: Liquid

Boiling Range (°C): 40
Specific Gravity (water=1): 1.32
pH (as supplied): Not applicable
Vapour Pressure (kPa): 46.5 @20C
Evaporation Rate: >1 BuAc=1
Flash Point (°C): Not applicable
Upper Explosive Limit (%): 22- oxygen rich
Decomposition Temp (°C): Not Available
Viscosity: Not Available

Material	Value
log Kow	1.25

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

- » Harmful if swallowed.
- » Irritating to skin.
- » Vapours may cause dizziness or suffocation.

- » Inhalation and/or skin contact may produce health damage*.
- » May produce discomfort of the eyes and respiratory tract*.
- » Vapours potentially cause drowsiness and dizziness*.
- » * (limited evidence).

TOXICITY AND IRRITATION

» The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis.
WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

CHRONIC HEALTH EFFECTS

- » Limited evidence of a carcinogenic effect.
- » May affect fertility*.
- » Cumulative effects may result following exposure*.
- » * (limited evidence).

CARCINOGEN

methylene chloride	International Agency for Research on Cancer (IARC) Carcinogens	Group	2B
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REPROTOXIN

methylene chloride	ILO Chemicals in the electronics industry that have toxic effects on reproduction	Reduced fertility or sterility
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Section 11 - TOXICOLOGICAL INFORMATION

Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle where possible
Otherwise ensure that:
- licenced contractors dispose of the product and its container.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: TOXIC
HAZCHEM: None

UNDG:

Dangerous Goods Class:	6.1	Subrisk:	None
UN Number:	1593	Packing Group:	III
Shipping Name:	DICHLOROMETHANE		

Air Transport IATA:

ICAO/IATA Class:	6.1	ICAO/IATA Subrisk:	None
UN/ID Number:	1593	Packing Group:	III
Special provisions:	None		
Shipping Name:	DICHLOROMETHANE		

Maritime Transport IMDG:

IMDG Class:	6.1	IMDG Subrisk:	None
UN Number:	1593	Packing Group:	III
EMS Number:	F- A, S- A	Special provisions:	None
Limited Quantities:	5 L		
Shipping Name:	DICHLOROMETHANE		

Section 15 - REGULATORY INFORMATION

REGULATIONS

methylene chloride (CAS: 75-09-2) is found on the following regulatory lists:
GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products
International Agency for Research on Cancer (IARC) Carcinogens
International Council of Chemical Associations (ICCA) - High Production Volume List
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Hazardous Substances Register
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Pesticides
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Scheduled Toxic Substances
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Poisons Schedule [NLV]
New Zealand Workplace Exposure Standards (WES)
OECD Representative List of High Production Volume (HPV) Chemicals
WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water
Specific advice on controls required for materials used in New Zealand can be found at
<http://www.ermanz.govt.nz/search/registers.html>

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Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE

0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

» Classification of the preparation and its individual components has drawn on official and authoritative sources as well as

independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

» The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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