

# MATERIAL SAFETY DATA SHEET

## SECTION 1 – IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: CHEMSTRIP

Manufacturer's Product Code: 0007

Other Names: Solvent based paint stripper

Major Recommended Uses: As a stripper of paint, varnish, enamel, lacquer and shellac.

Supplier's Details: Chemsearch Australia  
5 Ralph Street, Alexandria  
Sydney NSW 2015  
Telephone Number (Office Hours): (02) 9669 0260  
Fax Number: (02) 9693 1562  
Emergency Telephone Number: (02) 9214 0755

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## SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification: Classified as HAZARDOUS according to the criteria of NOHSC.  
Dangerous Goods Class: Class 6.1, no sub-risk.  
Poisons Schedule: Schedule 5

Risk Phrases: Harmful.  
Limited evidence of a carcinogenic effect.

Safety Phrases: Keep out of reach of children  
Do not breathe vapour.  
Avoid contact with skin and eyes.  
Wear suitable protective clothing and gloves.

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients

<u>Chemical Entity</u>	<u>CAS No</u>	<u>Proportion</u>	<u>Synonyms</u>
Dichloromethane	75-09-2	>60%	Methylene chloride
'Ingredients determined not to be hazardous'			
to 100%			

All the constituents of this material are listed on the Australian Inventory of Chemical Substances.

## SECTION 4 – FIRST AID MEASURES

Skin: Remove contaminated clothing and flush affected skin and hair with running water. Get immediate medical attention if irritation develops. Wash clothing and clean shoes before re-use.

Eye: Immediately rinse the eyes - hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15-minutes or until advised to stop by the Poisons Information Centre or a doctor. Take care not to rinse contaminated water into the non-affected eye. Get immediate medical attention, especially if irritation develops.

Inhalation: Remove to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

Ingestion: If swallowed do not induce vomiting. Give plenty of water and call a doctor. If vomiting occurs, give fluids again. Get immediate medical attention.

First Aid Facilities: An eye wash station and safety shower should be available.

Advice to Doctor: Ingestion and subsequent vomiting of this product can lead to aspiration of the product into the lungs which can cause damage. Depending on the amount ingested and retained, gastric lavage should be considered. Keep patient's head below hips to prevent pulmonary aspiration. If comatose, a cuffed endotracheal tube will prevent aspiration. Chlorinated hydrocarbons may sensitise the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators. Do not administer sympathomimetic drugs unless absolutely necessary.

Additional Information: Pre-existing medical conditions aggravated by exposure are conditions sensitive to a decrease in available oxygen such as chronic lung disease, coronary artery disease or anaemia. Pre-existing respiratory and skin conditions such as asthma, emphysema and dermatitis; pre-existing liver, cardiovascular, lung, kidney diseases can also be aggravated. Target organs: heart, liver, lungs, optic nerves, cardiovascular system, central nervous system and kidneys. none known. The primary routes of entry into the body are inhalation and absorption. The primary routes of exposure are skin and eye contact.

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## **SECTION 5 – FIRE FIGHTING MEASURES**

Suitable Extinguishing Media: In the event of a fire, powder, foam and CO<sub>2</sub> are the recommended extinguishing agents. Use extinguishing agents appropriate for surrounding environment.

Special Protective Equipment and Precautions for Fire Fighters: Fire fighters should wear self-contained breathing apparatus and full protective gear, particularly if risk of exposure to vapour. Cool fire-exposed containers with water spray to prevent bursting.

Fire/Explosive Hazards: Water spray (fog), whilst effective, may cause frothing and foaming. Never use a water jet as this will spread the fire. Hazardous decomposition products include phosgene, hydrogen chloride, chlorine, formic acid, aldehydes, formaldehyde and oxides of carbon and sulphur.

Hazchem Code: 2Z

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## **SECTION 6 – ACCIDENTAL RELEASE MEASURES**

Wear appropriate protective clothing and ventilate the area. Floor may be slippery.

Methods and Materials for Containment and Clean Up: Shut off the source of the leak and dike/contain spill if it safe to do so. Absorb the spill with an inert absorbent material. Dispose of waste in a closed, labelled steel container in accordance with local, state and Commonwealth laws. If a large volume has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus. Flush area with water to wash away residues. Prevent product from contaminating soil or from entering sewerage and drainage systems. If contamination of sewers or waterways has occurred advise the local emergency services.

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## **SECTION 7 – HANDLING AND STORAGE**

Precautions for Safe Handling: Observe precautions stated on product label, and follow industry safety regulations. Smoking, eating and drinking should be prohibited where the preparation is used. The product must not come into contact with skin and eyes, and the drum should never be opened under pressure. Take care when opening drum, and follow instructions outlined on the drum lid. Use with caution around heat, sparks, pilot lights, static electricity and open flames. Do not pressurise, cut, weld, solder, drill, grind, or expose empty containers to heat, hot surfaces, sparks, or open flames. Ground and bond container when handling near flammable vapours and all sources of ignition.

Conditions for Safe Storage: Keep the container tightly closed when not in use. Store in a dry, well-ventilated area in an upright position in original container. Store below 38°C. Store away from strong oxidising agents such as chlorine bleach, concentrated hydrogen peroxide and nitrogen peroxide; reducing agents such as sodium thiosulphate; strong acids and alkali; amines, oxygen, water chlorinated compounds, halogens, alkanolamines, aldehydes, chromic anhydride, phosphorous

trioxide, lead perchlorate, perchloric acid, ethyl alcohol, iodine, mercuric oxide, sodium and potassium hydroxide and chloroform; reactive powdered metals such as aluminium, magnesium, potassium, sodium, and zinc.

## **SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure Standards: None established for finished product. The ASCC recommends a TWA of 50ppm (174mg/m<sup>3</sup>) for dichloromethane.

Engineering Controls: Natural ventilation should be sufficient, however local ventilation is recommended to control exposure from operations that generate vapours or mists in concentrations in excess of the exposure limits.

### Personal Protective Equipment:

Eye/Face Protection: The use of chemical goggles, safety glasses with side shield protection, or a faceshield complying with AS/NZS 1337 is recommended.

Skin Protection: PVA, neoprene or nitrile rubber gloves should be worn along with chemical resistant protective clothing appropriate for method of usage (e.g. apron/overalls/rubber boots) when handling this product. Protective creams may be used for exposed skin, but they should not be applied after contact with the product. Wear gloves of impervious material conforming to AS/NZS 2161.

Respiratory Protection: If engineering controls are not effective in controlling airborne exposure, an approved organic respirator should be used. Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant; the final choice of appropriate breathing protection is dependant upon the airborne concentrations and will vary according to individual circumstances. A half-facepiece respirator equipped with appropriate cartridge is suitable at concentrations up to 10-times the TLV; reference should be made to Australian Standard AS/NZS 1715 and AS/NZS 1716.

## **SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Transparent/off-white viscous liquid with a chlorinated solvent odour.
Boiling Point:	41°C
Vapour Pressure:	350mm Hg at 25°C
Vapour Density:	2.0 (Air = 1)
Solubility in Water (g/L):	Negligible
Specific Gravity:	1.20 at 25°C (H <sub>2</sub> O = 1)
Flashpoint:	No flashpoint before boiling temperature
Flashpoint Method:	P.M.C.C.
Evaporation Rate:	14 (Butyl acetate = 1)
% Volatiles (by Volume):	94%

## **SECTION 10 – STABILITY AND REACTIVITY**

Stability: Stable.

Hazardous Polymerisation: Will not occur.

### Conditions/Materials to Avoid:

Avoid strong oxidising agents such as chlorine bleach, concentrated hydrogen peroxide, and nitrogen peroxide; reducing agents such as sodium thiosulphate; strong acids and alkali; amines, oxygen, water chlorinated compounds, halogens, alkanolamines, aldehydes, chromic anhydride, phosphorous trioxide, lead perchlorate, perchloric acid, ethyl alcohol, iodine, mercuric oxide, sodium and potassium hydroxide, and chloroform; reactive powdered metals such as aluminium, magnesium, potassium, sodium, and zinc.

Hazardous Decomposition Products: Phosgene, hydrogen chloride, chlorine, formic acid, aldehydes, formaldehyde and oxides of carbon and sulphur.

## **SECTION 11 – TOXICOLOGICAL INFORMATION**

Health Effects:

Acute - Swallowed: May cause irritation with possible nausea, vomiting, and diarrhea. May cause central nervous system effects similar to inhalation. Ingestion and subsequent vomiting of this product can lead to aspiration of the product into the lungs.

Avoid alcohol consumption as alcohol may exacerbate the effects of overexposure, and can result in metabolic acidosis leading to optic nerve damage ranging from diminished visual capacity to complete blindness. Transient visual abnormalities that develop during acute intoxication may include blurred or double vision, changes in colour perception, constricted visual fields, spots before the eyes, and sharply reduced visual acuity.

Acute - Eye: Causes severe irritation seen as stinging, tearing, swelling, redness and a burning sensation. Prolonged contact may cause conjunctivitis and corneal damage.

Acute - Skin: Causes irritation seen as itching and redness. Product may be absorbed through the skin in harmful amounts.

Acute - Inhaled: Mist or vapour causes respiratory irritation seen as coughing and sneezing. At low vapour concentrations, no harmful effects are expected. At high vapour concentrations, inhalation may cause olfactory fatigue where a temporary loss of odour perception is experienced; central nervous system effects such as headache, dizziness, drowsiness, weakness, nausea, unconsciousness; and possible anaesthetic effects from central nervous system depression. Excessive exposure may cause numbness and tingling. Cardiac arrhythmias (irregular heartbeats) and carboxyhemoglobinemia (impairing the blood's ability to transport oxygen) can occur. This can be additive to the increase caused by smoking and other carbon monoxide sources.

Chronic: Prolonged contact may cause an intense burning sensation followed by a feeling of cold and numbness. Prolonged or repeated contact as from clothing wet with material may cause drying, defatting, and cracking of the skin. Chronic exposure may result in cardiac sensitisation and increase the risk of cardiac arrest. Upon repeated or prolonged contact, this product may be absorbed in toxic amounts causing blood and liver abnormalities, kidney, lung, spleen, and testes damage, weight loss, and anorexia. Excessive inhalation of vapours may cause the presence of blood in the urine.

Target Organs: heart, liver, lungs, optic nerves, cardiovascular system, central nervous system, and kidneys.

Dichloromethane Toxicological data

Oral (Human) LDLo: 357mg/kg - Oral (Rat) LD50: 1600mg/kg.  
Skin (Rabbit): 810mg/24hr SEVERE - Skin (Rabbit) SDT: 100mg/24hr MODERATE.  
Eye (Rabbit) SDT: 162mg MODERATE - Eye (Rabbit): 500mg/24hr - Mild  
Inhalation (Human) TCLo: 500ppm/8hr - Inhalation (Rat) LC50: 52g/m<sup>3</sup>.  
Tumourigenic Data: Inhalation (Rat) TCLo: 3500ppm/6H/2Y-I.  
Reproductive Data: Inhalation (Rat) TCLo: 4500ppm/24H/female 1-17 days after conception.  
[\*Source: Registry Of Toxic Effects Of Chemical Substances, CCINFOWeb, 2005.]

Epidemiology studies of humans chronically exposed to dichloromethane in the workplace for over 20 years have not demonstrated any increase in deaths by cancer or cardiac problems. Laboratory studies on mice, rats and rabbits to evaluate the potential reproductive and developmental effects of dichloromethane exposure have not shown teratogenic effects (birth defects) in experimental animals.

ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans

IARC Group 2B: Possibly carcinogenic to humans. Animal sufficient evidence; human inadequate evidence

[\*Source: Vendor MSDSs.]

## **SECTION 12 – ECOLOGICAL INFORMATION**

No information on finished product.

Dichloromethane in the atmosphere degrades by reaction with photochemically produced hydroxy radicals (half-life 6 months). Dichloromethane is immiscible or partly miscible with water, and rapidly volatilises from water and soil to the atmosphere (estimated half-life for volatilisation from water 3-5.6 hours). Dichloromethane in soil may partially leach to ground water. It is not expected to bioaccumulate or bioconcentrate in the food chain. Toxic to aquatic organisms.

## **SECTION 13 – DISPOSAL CONSIDERATIONS**

Dispose of waste in a closed, labelled container in accordance with EPA, local, state and federal laws.

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## **SECTION 14 – TRANSPORT INFORMATION**

UN Number: UN1593

UN Proper Shipping Name: Dichloromethane

Transport Hazard Class: Toxic. ADG Class 6.1, no sub-risk.

This product is incompatible in a placard load with Class 1 (Explosives), nitromethane, and food and food packaging in any quantity.

Packaging Group: Group III

Hazchem Code: 2Z

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## **SECTION 15 - REGULATORY INFORMATION**



Poisons Schedule: Schedule 5 ;

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## **SECTION 16 – OTHER INFORMATION**

Initial 16-header MSDS.

Since the user's working conditions are not known by the supplier, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The product must not be used for any purposes other than those specified in Section 1 without first obtaining written handling instructions. CHEMSEARCH AUSTRALIA assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such non-recommended use, storage or disposal of the product.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties.