

SAFETY DATA SHEET

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

Product name: **DICHLOROMETHANE**
Supplier: LABSCAN LIMITED,
T24-26 STILLORGAN INDUSTRIAL PARK, STILLORGAN,
CO. DUBLIN, IRELAND.
Emergency telephone number: +353 1 295 2684 Fax No: +353 1 295 2685

2. COMPOSITION/INFORMATION ON INGREDIENTS

Identification of the preparation

Chemical Name	CAS-No	EEC-No	Class	Weight %
DICHLOROMETHANE	75-09-2	602-004-00-3	Carc. Cat.3; R40	100

3. HAZARDS IDENTIFICATION

Most important hazards: Harmful.
Limited evidence of a carcinogenic effect.

Specific hazards Harmful if swallowed.
Irritating to skin. The substance can be absorbed through skin.
The vapour has an anaesthetic effect and in high concentrations induces unconsciousness which can be fatal. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

4. FIRST AID MEASURES

General advice: Show this safety data sheet to the doctor in attendance.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus.
Obtain medical attention.

Skin contact: Remove contaminated clothing and wash affected skin with soap and water. If signs of poisoning appear, treat as for inhalation.
Wash contaminated clothing before re-use.

Eye contact: If the substance has got into the eyes, wash out with water or saline solution for at least 15 minutes. Obtain medical attention.

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Ingestion: Rinse mouth. Do not induce vomiting. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus. Obtain medical attention. Subsequently administer: activated charcoal (20-40g in 10% slurry).
Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Extinguish with waterspray, foam or dry powder.

Extinguishing media which must not be used for safety reasons:

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards:

Temperatures above 120°C

Decomposes in a fire, giving off toxic fumes: phosgene and hydrochloric acid, carbon monoxide.

Thermal decomposition can lead to release of irritating gases and vapours

Special protective equipment for firefighters:

Wear self-contained breathing apparatus and protective suit.

Specific methods:

Standard procedure for chemical fires. Water mist may be used to cool closed containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Evacuate personnel to safe areas. Remove all sources of ignition. Wear self-contained breathing apparatus and protective suit. Shut off leaks if without risk. Keep people away from and upwind of spill/leak.

Environmental precautions:

Do not flush into surface water or sanitary sewer system. Contain or absorb leaking liquid with sand or earth. Prevent liquid entering sewers, basements and workpits. If substance has entered a water course or sewer or contaminated soil or vegetation, advise police.

Methods for cleaning up:

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Transfer to covered steel drums. Contact waste disposal services. Dispose of promptly.

7. HANDLING AND STORAGE

Handling:

Use only in area provided with appropriate exhaust ventilation. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.
Keep away from open flames, hot surfaces and sources of ignition.

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Storage: Keep tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Store in original container (+15 - +25C). Electrical equipment should be protected to the appropriate standard.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name:

DICHLOROMETHANE

National occupational exposure limits:
EH40:OES = 100ppm (350mg/m³) 8h TWAUSA-ACGIH = 50ppm (174 mg/m³) TLV-TWA
Engineering measures to reduce exposure

The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Ventilation hoods and fans required when working with organic solvents or in hot melt applications.

Personal protection equipment:

- **Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection:** Viton gloves. 89/686/EEC and EN374. .
- **Eye protection:** Goggles giving complete protection to eyes.
- **Skin and body protection:** Rubber or plastic boots. Chemical resistant apron / complete suit protecting against chemicals.

Hygiene measures:

Keep working clothes separately. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Formula:	CH₂Cl₂		
Form:	liquid,		
Colour:	clear,		
Odour:	characteristic stinging,		
pH:	(°C)	no data available	(g/l H ₂ O)
Boiling point/range:		39-40	°C
Melting point/range:		-97	°C
Decomposition temperature:		120	°C
Flash point:		closed cup does not flash,	°C
Autoignition temperature:		624	°C
Flammability (solid, gas):		Non-flammable	
Explosive properties:			
Explosion limits:	- lower	15	vol. %
	- upper	66	vol. %
Oxidizing properties:		no data available	

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Vapour pressure:	(20 °C)	465	hPa
Relative density:	(20 °C) >=	1318 mg/m ³	
		<= 1320 mg/m ³	
Bulk density:		1320	kg/m³
Solubility:			
Water solubility	(20 °C)	19.6	g/l)
Solubility in other solvents			
Partition coefficient (n-octanol/water)		log P _{ow} = 1.3	
Viscosity:	(°C)	no data available	mPa.s

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions. Protect from light. Stabilizer: 2-methyl-2-butene (amylene).
Conditions to avoid:	Keep away from heat.
Materials to avoid:	alkali metals, alkaline earth metals, metals in powder form, nitrogen oxides, alcoholates, alkali amides, perchloric acid, nitric acid, nonmetallic oxides, oxygen, aluminium, sodium azide. Unsuitable working materials: various plastics, rubber, light metals, metals, steel.
Hazardous decomposition products:	Temperatures above 120°C: Decomposes in a fire, giving off toxic fumes: phosgene and hydrochloric acid, carbon monoxide Sensitivity to light (hydrogen halides)

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11. TOXICOLOGICAL INFORMATION**Acute toxicity:****Inhalation :**

no-observed-effect level (NOEL) <1000 mg/m³
 Effects of breathing high concentrations of vapour may include, headache, dizziness, unconsciousness, cardiac irregularities.
 LC50/inhalation/8h/mouse = 48mg/L

Ingestion :

Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Liver and kidney injuries may occur. Lowest dose known to cause toxic symptoms in man: Passage to the lung can result in chemical pneumonitis.
 LD50/oral/rat = 1600mg/kg
 LDLo (oral, human): 357mg/kg.

Skin contact :

slightly irritant to skin,
 Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product. The substance can be readily absorbed through intact skin.

Sensitization:

slightly irritant to eyes,
 slightly irritant to skin,
 slightly harmful by inhalation.

Long term toxicity:

Danger of serious damage to health by prolonged exposure.

Chronic toxicity:

Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood.
 Did show carcinogenic effects in animal experiments.
 Mutagenicity test mammalian cells: negative in vivo. Ames test: positive.

12. ECOLOGICAL INFORMATION**Mobility:**

Immiscible or partly miscible with water

Persistence / degradability:

Not readily biodegradable (5-26 % after 28 days)
 Ozone depletion potential; ODP; (R-11 = 1) = negligible

Bioaccumulation:

Bioaccumulation slight = log P(o/w) = 1.3

Ecotoxicity:

Harmful to aquatic organisms.
 LC50/96h/goldfish = (193-510) mg/l
 LC50/96h/daphnia = 18mg/l.
 Algal toxicity >660 mg/l/96h
 Toxicity to bacteria: 1000-2880 mg/l
 Protozoa: >16000 mg/l

Product name: **DICHLOROMETHANE****13. DISPOSAL CONSIDERATIONS****Waste from residues / unused products:**

If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal.

Empty containers can be landfilled after cleaning, when in compliance with local regulations.

14. TRANSPORT INFORMATION**ADR/RID**

Proper shipping name:	DICHLOROMETHANE		
Class:	6.1	Item:	15c
Packaging group:	III	HI/UN No:	1593

IMO

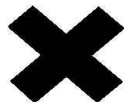
Proper shipping name:	DICHLOROMETHANE		
Class:	6.1	IMDG Page:	6127
EmS:	340	MFAG:	6.1-02
Packaging group:	III	UN-No:	1593
Marine pollutant:	not applicable		

ICAO

Proper shipping name:	DICHLOROMETHANE		
Class:	6.1	UN/ID No:	1593
Packaging group:	III		

15. REGULATORY INFORMATION**Classification according to European directive on classification of hazardous preparations 2001/58/EC**

- Contains: DICHLOROMETHANE
- Symbol(s):



Xn -
Harmful.

R -phrase(s): R40 - Limited evidence of a carcinogenic effect.

S -phrase(s): S23 - Do not breathe vapour.
S24/25 - Avoid contact with skin and eyes.
S36/37 - Wear suitable protective clothing and gloves.

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16. OTHER INFORMATION

Recommended restrictions: Take notice of labels and material safety data sheets for the working chemicals.

Recommended use: General purpose solvent.

Further information: Contact Labscan Limited.

REVISION DATE: 20/08/2002

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.