

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

METHYLENE CHLORIDE

Version 4.0

Print Date 2011/12/06

Revision Date 2011/12/06

MSDS code: MMEC100

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : METHYLENE CHLORIDE
 Substance name : dichloromethane
 Index-No. : 602-004-00-3
 CAS-No. : 75-09-2
 EC-No. : 200-838-9
 Registration number : 01-2119480404-41-xxxx

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company : Brenntag UK & Ireland
 Albion House, Rawdon Park
 GB LS19 7XX Leeds Yeadon
 Telephone : 0113 3879 200
 Telefax : 0113 3879 280
 E-mail address : msds@brenntag.co.uk

1.4. Emergency telephone number

Emergency telephone number : Emergency only telephone number (open 24 hours):
 01865 407333 (N.C.E.C. Culham)

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Carcinogenicity	Category 2	---	H351
Skin irritation	Category 2	---	H315

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Specific target organ toxicity - single exposure	Category 3	---	H335
Specific target organ toxicity - repeated exposure	Category 2	---	H373
Specific target organ toxicity - single exposure	Category 3	---	H336
Serious eye damage/eye irritation	Category 2	---	H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Carcinogenic Category 3 (Carc.Cat.3)	R40
Irritant (Xi)	R36/37/38
	R67
Harmful (Xn)	R48/22

For the full text of the R-phrases mentioned in this Section, see Section 16.

Most important adverse effects

- Human Health : See section 11 for toxicological information.
No further information available.
- Physical and chemical hazards : See section 9 for physicochemical information., No further information available.
- Potential environmental effects : See section 12 for environmental information.
No further information available.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols :



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Hazard symbols

Signal word : Warning

Hazard statements : H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary statements

Prevention : P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P281 Use personal protective equipment as required.
 P262 Do not get in eyes, on skin, or on clothing.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response : P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : P405 Store locked up.

Disposal : P502 Refer to manufacturer/ supplier for information on recovery/ recycling.

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Hazardous components which must be listed on the label:

- dichloromethane

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.
No other information is available.

3. Composition/information on ingredients

3.1. Substances

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)		Classification (67/548/EEC)
		Hazard class / Hazard category	Hazard statements	
dichloromethane				
Index-No.	: 602-004-00-3	Carc.2	H351	Carc.Cat.3; R40
CAS-No.	: 75-09-2	Skin Irrit.2	H315	Xi; R36/37/38
EC-No.	: 200-838-9	STOT SE3	H335	R67
Registration	: 01-2119480404-41-xxxx	STOT RE2	H373	Xn; R48/22
C&L-No.	: 02-2119752537-31-0000	STOT SE3	H336	
	<= 100	Eye Irrit.2	H319	

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

4.1. Description of first aid measures

- General advice : Remove from exposure, lie down. Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Take off all contaminated clothing immediately. Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours. Consult a physician.
- If inhaled : Remove to fresh air. Give oxygen. Consult a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

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In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Consult a physician.

If swallowed : Clean mouth with water and drink afterwards plenty of water. If swallowed, do not induce vomiting - seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Effects : No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.No further information available.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

Unsuitable extinguishing media : High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : In case of fire hazardous decomposition products may be produced such as: Carbon monoxide, Hydrogen chloride gas, Phosgene, Chlorine

5.3. Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.Wear appropriate body protection (full protective suit)

Further information : Cool closed containers exposed to fire with water spray.Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment. Keep people away from and upwind of spill/leak. Provide adequate ventilation. Keep away from heat and sources of ignition. Avoid contact with

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skin and eyes. Do not breathe gas/fumes/vapour/spray. For personal protection see section 8.

6.2. Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid subsoil penetration. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up : Ensure adequate ventilation. This material and its container must be disposed of as hazardous waste. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

For personal protection see section 8.

7. Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin and the eyes. Keep container tightly closed. Provide sufficient air exchange and/or exhaust in work rooms. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures : Take off all contaminated clothing immediately. Do not breathe gas/fumes/vapour/spray. Avoid contact with the skin and the eyes. Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

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Requirements for storage areas and containers : Suitable materials for containers: Mild steel; glass; Unsuitable materials for containers: Light metals; Aluminium; Use appropriate container to avoid environmental contamination. Keep in a dry, cool and well-ventilated place. Keep in an area equipped with solvent resistant flooring. Keep away from direct sunlight.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking. Keep away from heat. Do not spray on a naked flame or any incandescent material.

Advice on common storage : Keep away from combustible material.

German storage class : 6.1B Non combustible substances, toxic

7.3. Specific end uses

Specific use(s) : No information available.

8. Exposure controls/personal protection

8.1. Control parameters

Component: dichloromethane

CAS-No.

75-09-2

Derived No Effect Level (DNEL)

Workers, Acute - systemic effects, Inhalation	: 353 mg/m ³
Workers, Long-term - systemic effects, Skin contact	: 2395 mg/kg bw/day
Workers, Local effects, Skin contact Long-term exposition	: 88.3 mg/cm ²
Workers, Local effects, Ingestion Long-term exposition	: 0.06 mg/kg bw/day
Consumer use, Acute - systemic effects, Inhalation	: 706 mg/m ³
Consumer use, Long-term - systemic effects, Skin contact	: 4750 mg/kg bw/day
Consumer use, Long-term - systemic effects, Inhalation	: 353 mg/m ³

Predicted No Effect Concentration (PNEC)

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Fresh water	:	0.54 mg/l
Marine water	:	0.194 mg/l
Periodical releases	:	0.27 mg/l
Fresh water sediment	:	4.47 mg/kg dwt
Marine sediment	:	1.61 mg/kg dwt
Soil	:	0.583 mg/kg
Sewage treatment plant (STP)	:	26 mg/l

Other Occupational Exposure Limit Values

EH40 WEL, Short Term Exposure Limit (STEL):
300 ppm, 1,060 mg/m³

EH40 WEL, Time Weighted Average (TWA):
100 ppm, 350 mg/m³

EH40 WEL, Skin designation:
Can be absorbed through the skin.

8.2. Exposure controls

Engineering measures

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Respirator with filter for organic vapour
Recommended Filter type:AX

Hand protection

Advice : Wear suitable gloves.
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first signs of wear.

Material : fluorocarbon rubber
Break through time : 8 h

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Glove thickness : 0.4 mm

Material : (PE=polyethylene; EVAL=ethylene-vinyl alcohol-copolymer)
Break through time : 8 h
Glove thickness : 0.4 mm

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : Wear suitable protective clothing.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.
Avoid subsoil penetration.
Local authorities should be advised if significant spillages cannot be contained.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form : liquid
Colour : colourless
Odour : sweet
Odour Threshold : 250 ppm
pH : not applicable
Solidification point : -95.1 °C
Boiling point/boiling range : 40 °C
Flash point : not applicable
Evaporation rate : Currently we do not have any Information from our supplier about this.

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Flammability (solid, gas)	:	Currently we do not have any Information from our supplier about this.
Upper explosion limit	:	22 %(V)
Lower explosion limit	:	13 %(V)
Vapour pressure	:	475 hPa (20 °C)
Relative vapour density	:	2.93
Density	:	1.33 g/cm ³ (20 °C)
Water solubility	:	13.7 g/l (20 °C)
Partition coefficient: n-octanol/water	:	log Kow 1.25
Ignition temperature	:	605 °C
Thermal decomposition	:	Currently we do not have any Information from our supplier about this.
Viscosity, dynamic	:	0.41 mPa.s (22 °C)
Viscosity, kinematic	:	0.31 mm ² /s (25 °C)
Explosive properties	:	EU legislation: Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2. Other information

No further information available.

10. Stability and reactivity**10.1. Reactivity**

Advice : No decomposition if stored and applied as directed.

10.2. Chemical stability

Advice : Stable under normal conditions.

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10.3. Possibility of hazardous reactions

Hazardous reactions : No information available.

10.4. Conditions to avoid

Conditions to avoid : No information available.

10.5. Incompatible materials

Materials to avoid : Aluminium, Zinc, Oxidizing agents, Strong acids and strong bases

10.6. Hazardous decomposition products

Hazardous decomposition products : Hydrogen chloride gas, Carbon monoxide, Phosgene

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Oral

Currently we do not have any Information from our supplier about this.

Inhalation

Currently we do not have any Information from our supplier about this.

Dermal

Currently we do not have any Information from our supplier about this.

Irritation

Skin

Currently we do not have any Information from our supplier about this.

Eyes

Currently we do not have any Information from our supplier about this.

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this.

Sensitisation

Currently we do not have any Information from our supplier about this.

CMR effects

CMR Properties

- | | | |
|-----------------------|---|--|
| Carcinogenicity | : | Currently we do not have any Information from our supplier about this. |
| Mutagenicity | : | Currently we do not have any Information from our supplier about this. |
| Teratogenicity | : | Currently we do not have any Information from our supplier about this. |
| Reproductive toxicity | : | Currently we do not have any Information from our supplier about this. |

Specific Target Organ Toxicity

Single exposure

Currently we do not have any Information from our supplier about this.

Repeated exposure

Currently we do not have any Information from our supplier about this.

Aspiration toxicity

Currently we do not have any Information from our supplier about this.

Further information

- | | | |
|-------------------------------------|---|--|
| Other relevant toxicity information | : | Inhalation of high vapour concentrations can cause CNS-depression and narcosis.
Risk of serious damage to the lungs (by inhalation).
Liver injury may occur.
Ingestion causes damage of central nervous system, liver, kidneys, |
|-------------------------------------|---|--|

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blood and bone marrow.
Limited evidence of a carcinogenic effect.

Experience with human exposure : Repeated and prolonged exposure to solvents may cause brain and nervous system damage.

Component: dichloromethane

**CAS-No.
75-09-2**

Acute toxicity

Oral

LD50 : > 2000 mg/kg (rat)

Inhalation

LC50 : 86 mg/l (mouse; 4 h)

Dermal

LD50 : > 2000 mg/kg (rat) (OECD Test Guideline 402)

Irritation

Skin

Prolonged skin contact may defat the skin and produce dermatitis.
May cause irritation of the mucous membranes.

Eyes

May have irritant effects.

Sensitisation

Patch test on human volunteers did not demonstrate sensitization properties.

CMR effects

CMR Properties

Carcinogenicity : Suspected of causing cancer.

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12. Ecological information

12.1. Toxicity

Component: dichloromethane		CAS-No. 75-09-2
Acute toxicity		
Fish		
LC50	:	193 mg/l (Pimephales promelas; 96 h)
LC50	:	220 mg/l (Lepomis macrochirus; 96 h) (Directive 67/548/EEC, Annex V, C.1.)
Toxicity to daphnia and other aquatic invertebrates.		
EC50	:	480 mg/l (Daphnia magna; 48 h) (Immobilization)
LC50	:	27 mg/l (Daphnia magna; 48 h)
algae		
EbC50	:	> 662 mg/l (Pseudokirchneriella subcapitata; 96 h)
NOEC	:	550 mg/l (Scenedesmus subspicatus; 8 d)
Bacteria		
EC50	:	2590 mg/l (activated sludge; 40 min) (OECD Test Guideline 209)

12.2. Persistence and degradability

Component: dichloromethane		CAS-No. 75-09-2
Persistence and degradability		
Persistence		

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Result : no data available

Biodegradability

Result : 5 - 26 % (Exposure Time: 28 d)(OECD 301 C)
Not readily biodegradable.

12.3. Bioaccumulative potential

Component: dichloromethane

CAS-No.

75-09-2

Bioaccumulation

Result : BCF: < 100
Does not bioaccumulate.

12.4. Mobility in soil

Component: dichloromethane

CAS-No.

75-09-2

Mobility

Soil : Highly mobile in soils

12.5. Results of PBT and vPvB assessment

Component: dichloromethane

CAS-No.

75-09-2

Results of PBT and vPvB assessment

Result : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

Additional ecological information

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Result : The product evaporates readily.
Do not flush into surface water or sanitary sewer system.

13. Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains.

Contaminated packaging : Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of as unused product.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14. Transport information

14.1. UN number

1593

14.2. UN proper shipping name

ADR : DICHLOROMETHANE
RID : DICHLOROMETHANE
IMDG : DICHLOROMETHANE

14.3. Transport hazard class(es)

ADR-Class : 6.1
(Labels; Classification Code; Hazard identification No; Tunnel restriction code) 6.1; T1; 60; (E)

RID-Class : 6.1
(Labels; Classification Code; Hazard identification No) 6.1; T1; 60

IMDG-Class : 6.1
(Labels; EmS) 6.1; F-A, S-A

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14.4. Packaging group

ADR : III
RID : III
IMDG : III

14.5. Environmental hazards

Labeling according to 5.2.1.8 ADR : no
Labeling according to 5.2.1.8 RID : no
Labeling according to 5.2.1.6.3 IMDG : no
Classification as environmentally hazardous according to 2.9.3 IMDG : no
Classified as "P" according to 2.10 IMDG : no

14.6. Special precautions for user

Note : not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

UK ISR : dichloromethane: Annual reporting level threshold: 1,000 kg

UK ISR : dichloromethane: Annual reporting level threshold: 10; kg
dichloromethane

EU. REACH, Annex XVII, Marketing and Use Restrictions
(Regulation 1907/2006/EC)
Listed Point Nos.: 59

Notification status

dichloromethane:

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
INV (CN)	YES	
DCS (JP)	YES	(2)-36
ENCS (JP)	YES	(2)-36
ISHL (JP)	YES	(2)-36

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NZ CLSC	YES	
TSCA	YES	
EINECS	YES	200-838-9
KECI (KR)	YES	KE-23893
PICCS (PH)	YES	

15.2. Chemical Safety Assessment

Currently we do not have any Information from our supplier about this.

16. Other information

Full text of R-phrases referred to under sections 2 and 3.

R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R67	Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3.

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure if swallowed.

Further information

Other information : The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

|| Indicates updated section.