

Dichloromethane

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 03/04/2017 Version: 0.0

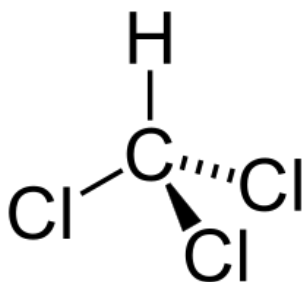
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Substance name : Dichloromethane
EC Index-No. : 602-004-00-3
EC-No. : 200-838-9
CAS-No. : 75-09-2
Type of product : Pure substance
Formula : CH₂Cl₂
Chemical structure :



Synonyms : aerotherne MM / DCM (=dichloromethane) / Dichloromethane / F 30 (chlorocarbon) / freon 30 / hcc 30 / khmadon 30 / methane dichloride / methane, dichloro- / methylene bichloride / methylene chloride / methylene dichloride / narkotil / R 30 / R30 (refrigerant) / solaesthin / soleana vda / solmethine

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Industrial use
Cleansing product
Solvent
Polymerisation: auxiliary substance
Photographic chemical
Degreasing agent
Anti-freezing agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ISOLAB Laborgeräte GmbH
Am Dillhof 2 - 63863 Eschau / GERMANY
Tel: + 49 93 74 / 978 55-0
Fax: +49 93 74 / 978 55-29
prodsafe@isolab.de

1.4. Emergency telephone number

| Country | Organisation/Company | Address | Emergency number | Comment |
|---------|---|-----------------------------------|------------------|---------|
| Germany | Giftnotruf der Charité CBF, Haus VIII (Wirtschaftsgebäude), UG | Hindenburgdamm 30 12203 Berlin | +49 30 19240 | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Carc. 2 H351
Skin Irrit. 2 H315
Eye Irrit. 2 H319
STOT SE 3 H336

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H315 - Causes skin irritation
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness
H351 - Suspected of causing cancer

Precautionary statements (CLP) :

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

| Name | Product identifier | % |
|-----------------|--|-----|
| Dichloromethane | (CAS-No.) 75-09-2 (EC-No.) 200-838-9 (EC Index-No.) 602-004-00-3 | 100 |

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

First-aid measures after inhalation

: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact

: Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

First-aid measures after eye contact

: Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion

: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Give activated charcoal. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Doctor: gastric lavage.

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

Symptoms/effects after inhalation

: Dry/sore throat. Coughing. Slight irritation. EXPOSURE TO HIGH CONCENTRATIONS: Headache. Nausea. Feeling of weakness. Dizziness. Coordination disorders. Impaired concentration. Change in the haemogramme/blood composition. ON CONTINUOUS EXPOSURE/CONTACT: Respiratory difficulties. Disturbances of consciousness.

Symptoms/effects after skin contact

: Tingling/irritation of the skin.

Symptoms/effects after eye contact

: Irritation of the eye tissue.

Symptoms/effects after ingestion

: AFTER ABSORPTION OF HIGH QUANTITIES: Nausea. Dry/sore throat. Gastrointestinal complaints.

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Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Central nervous system depression. Mental confusion. Slurred speech. Visual disturbances. Drunkenness. Delusions. Impaired memory. Enlargement/affection of the liver.

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Polyvalent foam. BC powder. Carbon dioxide.

Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD. Flammable in the presence of a high energy source. Gas/vapour flammable with air within explosion limits. INDIRECT FIRE HAZARD. Heating increases the fire hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard : DIRECT EXPLOSION HAZARD. Gas/vapour explosive within explosion limits if energy source high. INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk. Reactions with explosion hazards: see "Reactivity Hazard".

5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: consider evacuation.

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion. Dilute toxic gases with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective goggles. Head/neck protection. Protective clothing. Large spills/in enclosed spaces: gas-tight suit. See "Material-Handling" to select protective clothing.

Emergency procedures : Keep upwind. Mark the danger area. Seal off low-lying areas. Close doors and windows of adjacent premises. No naked flames. Keep containers closed. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Provide equipment/receptacles with earthing.

Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Use earthed equipment. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature : < 35 °C

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

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| | |
|------------------------------|---|
| Information on mixed storage | : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. (strong) bases. organic materials. water/moisture. |
| Storage area | : Store in a cool area. Store in a dry area. Store in a dark area. Ventilation at floor level. Provide for a tub to collect spills. Provide the tank with earthing. Unauthorized persons are not admitted. Store only in a limited quantity. Meet the legal requirements. |
| Special rules on packaging | : SPECIAL REQUIREMENTS: closing. dry. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers. |
| Packaging materials | : SUITABLE MATERIAL: stainless steel. polyethylene. glass. MATERIAL TO AVOID: iron. aluminium. synthetic material. copper. PVC. |

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Dichloromethane (75-09-2) | | |
|---------------------------|--|--|
| EU | Local name | Methylene chloride; Dichloromethane |
| EU | IOELV TWA (mg/m ³) | 353 mg/m ³ |
| EU | IOELV TWA (ppm) | 100 ppm |
| EU | IOELV STEL (mg/m ³) | 706 mg/m ³ |
| EU | IOELV STEL (ppm) | 200 ppm |
| EU | Notes | skin |
| Austria | Local name | Dichlormethan (R 30) |
| Austria | MAK (mg/m ³) | 175 mg/m ³ |
| Austria | MAK (ppm) | 50 ppm |
| Austria | MAK Short time value (mg/m ³) | 700 mg/m ³ |
| Austria | MAK Short time value (ppm) | 200 ppm |
| Austria | Remark (AT) | H |
| Belgium | Local name | Chlorure de méthylène # Methyleenchloride |
| Belgium | Limit value (mg/m ³) | 177 mg/m ³ (Chlorure de méthylène; Belgium; Time-weighted average exposure limit 8 h) |
| Belgium | Limit value (ppm) | 50 ppm (Chlorure de méthylène; Belgium; Time-weighted average exposure limit 8 h) |
| Bulgaria | Local name | Метиленхлорид (дихлорометан) |
| Bulgaria | OEL TWA (mg/m ³) | 100 mg/m ³ |
| Bulgaria | OEL STEL (mg/m ³) | 517 mg/m ³ |
| Croatia | Local name | Diklorometan; (metilen klorid) |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 350 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (ppm) | 100 ppm |
| Croatia | KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³) | 1060 mg/m ³ |
| Croatia | KGVI (kratkotrajna granična vrijednost izloženosti) (ppm) | 300 ppm |
| Croatia | Naznake (HR) | K (Skin): (naznaka da tvar može štetno djelovati kroz kožu); Xn (Štetno); BGV; Karc. kat. 3 (tvari koje izazivaju zabrinutost zbog mogućeg karcinogenog djelovanja na ljude) |
| Czech Republic | Local name | Dichlormethan |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 200 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (ppm) | 58 ppm |
| Czech Republic | Expoziční limity (NPK-P) (mg/m ³) | 500 mg/m ³ |
| Czech Republic | Expoziční limity (NPK-P) (ppm) | 140 ppm |
| Czech Republic | Remark (CZ) | D |
| Denmark | Local name | Dichlormethan (Methylenchlorid) |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 122 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (ppm) | 35 ppm |

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| Dichloromethane (75-09-2) | | |
|---------------------------|---|---|
| Denmark | Anmærkninger (DK) | H (betyder, at stoffet kan optages gennem huden); K (betyder, at stoffet anses for at kunne være kræftfremkaldende) |
| Finland | Local name | Dikloorimetaani |
| Finland | HTP-arvo (8h) (mg/m ³) | 350 mg/m ³ |
| Finland | HTP-arvo (8h) (ppm) | 100 ppm |
| Finland | HTP-arvo (15 min) | 880 mg/m ³ |
| Finland | HTP-arvo (15 min) (ppm) | 250 ppm |
| France | Local name | Dichlorométhane (Chlorure de méthylène) |
| France | VME (mg/m ³) | 178 mg/m ³ (Dichlorométhane; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante) |
| France | VME (ppm) | 50 ppm (Dichlorométhane; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante) |
| France | VLE (mg/m ³) | 356 mg/m ³ (Dichlorométhane; France; Short time value; VRC: Valeur réglementaire contraignante) |
| France | VLE (ppm) | 100 ppm (Dichlorométhane; France; Short time value; VRC: Valeur réglementaire contraignante) |
| France | Note (FR) | Valeurs réglementaires contraignantes; substance classée cancérigène de catégorie 2; risque de pénétration percutanée |
| Germany | Local name | Dichlormethan |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 180 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 50 ppm |
| Germany | Remark (TRGS 900) | DFG,H,Z |
| Greece | OEL TWA (mg/m ³) | 350 mg/m ³ |
| Greece | OEL TWA (ppm) | 100 ppm |
| Greece | OEL STEL (mg/m ³) | 1750 mg/m ³ |
| Greece | OEL STEL (ppm) | 500 ppm |
| Hungary | Local name | DIKLÓRMETÁN |
| Hungary | AK-érték | 10 mg/m ³ |
| Hungary | CK-érték | 10 mg/m ³ |
| Hungary | Megjegyzések (HU) | i; VI. |
| Ireland | Local name | Dichloromethane |
| Ireland | OEL (8 hours ref) (mg/m ³) | 174 mg/m ³ |
| Ireland | OEL (8 hours ref) (ppm) | 50 ppm |
| Latvia | Local name | Metilēnhlorīds (dihlormetāns) |
| Latvia | OEL TWA (mg/m ³) | 120 mg/m ³ |
| Latvia | OEL STEL (mg/m ³) | 150 mg/m ³ |
| Lithuania | Local name | Metileno chloridas |
| Lithuania | IPRV (mg/m ³) | 120 mg/m ³ |
| Lithuania | IPRV (ppm) | 35 ppm |
| Lithuania | TPRV (mg/m ³) | 250 mg/m ³ |
| Lithuania | TPRV (ppm) | 70 ppm |
| Lithuania | Remark (LT) | K (kancerogeninis poveikis); O (medžiaga į organizmą gali prasiskverbti pro nepažeistą odą); Ozono sluoksnį ardanti medžiaga. Naudojimas ribojamas. |
| Poland | Local name | Dichlorometan |
| Poland | NDS (mg/m ³) | 88 mg/m ³ |
| Portugal | Local name | Diclorometano |
| Portugal | OEL TWA (ppm) | 50 ppm |
| Romania | Local name | Clorura de metilen |
| Romania | OEL TWA (mg/m ³) | 174 mg/m ³ |

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| Dichloromethane (75-09-2) | | |
|---------------------------|---|--|
| Romania | OEL TWA (ppm) | 50 ppm |
| Slovakia | Local name | Dichlórmétán (metylénchlorid) |
| Slovakia | NPHV (priemerná) (mg/m ³) | 350 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 100 ppm |
| Slovenia | Local name | diklorometa (metilen klorid) |
| Slovenia | OEL TWA (mg/m ³) | 350 mg/m ³ |
| Slovenia | OEL TWA (ppm) | 100 ppm |
| Slovenia | OEL STEL (mg/m ³) | 1400 mg/m ³ |
| Slovenia | OEL STEL (ppm) | 400 ppm |
| Spain | Local name | Cloruro de metileno (Diclorometano) |
| Spain | VLA-ED (mg/m ³) | 177 mg/m ³ |
| Spain | VLA-ED (ppm) | 50 ppm |
| Spain | Notes | r (Esta sustancia tiene establecidas restricciones a la fabricación, la comercialización o el uso en los términos especificados en el "Reglamento (CE) nº 1907/2006 sobre Registro, Evaluación, Autorización y Restricción de sustancias y preparados químicos" (REACH) de 18 de diciembre de 2006 (DOUE L 369 de 30 de diciembre de 2006). Las restricciones de una sustancia pueden aplicarse a todos los usos o sólo a usos concretos. El anexo XVII del Reglamento REACH contiene la lista de todas las sustancias restringidas y especifica los usos que se han restringido), VLB® (Agente químico que tiene Valor Límite Biológico específico en este documento). |
| Sweden | Local name | Diklormetan |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 120 mg/m ³ 120 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 35 ppm 35 ppm |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 250 mg/m ³ 250 mg/m ³ |
| Sweden | kortidsvärde (KTV) (ppm) | 70 ppm 70 ppm |
| Sweden | Anmärkning (SE) | C (Ämnet är cancerframkallande Risk för cancer finns även vid annan exponering än via inandning. För vissa cancerframkallande ämnen som inte har gränsvärden gäller förbud eller tillståndskrav enligt föreskrifterna om kemiska arbetsmiljörisker); H (Ämnet kan lätt upptas genom huden Det föreskrivna gränsvärdet bedöms ge tillräckligt skydd endast under förutsättning att huden är skyddad mot exponering för ämnet ifråga); V (Vägledande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas); 36 (Metylenklorid är även reglerade av Kemikalieinspektionens lagstiftning. Dispens krävs för att saluhålla, överlåta och använda metylenklorid yrkesmässigt i Sverige undantaget forskning, utveckling och analysarbete) |
| United Kingdom | Local name | Dichloromethane |
| United Kingdom | WEL TWA (mg/m ³) | 350 mg/m ³ Dichloromethane; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005) |
| United Kingdom | WEL TWA (ppm) | 100 ppm Dichloromethane; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005) |
| United Kingdom | WEL STEL (mg/m ³) | 1060 mg/m ³ Dichloromethane; United Kingdom; Short time value; Workplace exposure limit (EH40/2005) |
| United Kingdom | WEL STEL (ppm) | 300 ppm Dichloromethane; United Kingdom; Short time value; Workplace exposure limit (EH40/2005) |

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| Dichloromethane (75-09-2) | | |
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| United Kingdom | Remark (WEL) | BMGV (Biological monitoring guidance values are listed in Table 2), Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |
| Russian Federation | Local name | Дихлорметан |
| Russian Federation | OEL Ceiling (mg/m ³) | 100 mg/m ³ |
| Russian Federation | OEL TWA (mg/m ³) | 50 mg/m ³ |
| Russian Federation | Remark (RU) | 4 класс опасности - умеренно опасное; п (пары и/или газы) |
| Norway | Local name | Diklormetan (Metylenklorid) |
| Norway | Greenseverdier (AN) (mg/m ³) | 50 mg/m ³ |
| Norway | Greenseverdier (AN) (ppm) | 15 ppm |
| Norway | Merknader (NO) | H (Kjemikalier som kan tas opp gjennom huden); K (Kjemikalier som skal betraktes som kreftfremkallende) |
| Switzerland | Local name | Dichlormethan |
| Switzerland | VME (mg/m ³) | 117 mg/m ³ 117 mg/m ³ |
| Switzerland | VME (ppm) | 50 ppm 50 ppm |
| Switzerland | VLE (mg/m ³) | 353 mg/m ³ 353 mg/m ³ |
| Switzerland | VLE (ppm) | 100 ppm 100 ppm |
| Switzerland | Remark (CH) | H* C1 _B [#] B - ZNS - DFG, HSE, NIOSH [#] Kein erhöhtes Krebsrisiko bei Einhalten des MAK-Werts ^{s. 1.3.2.3} |
| Australia | Local name | Methylene chloride |
| Australia | TWA (mg/m ³) | 174 mg/m ³ Synonym (Dichloromethane) |
| Australia | TWA (ppm) | 50 ppm Synonym (Dichloromethane) |
| Australia | Remark (AU) | Carcinogenicity Category 2 – Suspected human carcinogen. The classification of a chemical into this category is on the basis of evidence from human and animal studies, where the evidence is not sufficiently convincing to place the chemical into Category 1 or from limited evidence of carcinogenicity in human or animal studies; Sen - Respiratory and/or Skin Sensitiser. |
| USA - ACGIH | Local name | Dichloromethane |
| USA - ACGIH | ACGIH TWA (ppm) | 50 ppm (Dichloromethane (Methylene chloride)); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value) |
| USA - ACGIH | Remark (ACGIH) | COHb-emia; CNS impair |
| USA - OSHA | Local name | Methylene chloride |
| USA - OSHA | Remark (OSHA) | (2) See Table Z-2. |

8.2. Exposure controls

Materials for protective clothing:

GIVE GOOD RESISTANCE: PVA. GIVE LESS RESISTANCE: neoprene, tetrafluoroethylene. GIVE POOR RESISTANCE: butyl rubber, natural rubber, nitrile rubber, PVC, viton, styrene-butadiene rubber

Hand protection:

Gloves

Eye protection:

Safety glasses

Skin and body protection:

Head/neck protection. Protective clothing

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Respiratory protection:

Gas mask with filter type AX at conc. in air > exposure limit. High vapour/gas concentration: self-contained respirator

| Device | Filter type | Condition | Standard |
|----------|--|----------------------------------|----------|
| Gas mask | Type AX - Low-boiling (<65 °C) organic compounds | If conc. in air > exposure limit | |



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Molecular mass | : 84.93 g/mol |
| Colour | : Colourless. |
| Odour | : Sweet odour. Ether-like odour. |
| Odour threshold | : 214 ppm 755 mg/m ³ |
| pH | : Neutral at 20 °C |
| Relative evaporation rate (butylacetate=1) | : 27.5 |
| Relative evaporation rate (ether=1) | : 1.8 |
| Melting point | : -95 °C |
| Freezing point | : No data available |
| Boiling point | : 40 °C |
| Flash point | : No data available |
| Critical temperature | : 245 °C |
| Auto-ignition temperature | : 556 °C |
| Decomposition temperature | : > 120 °C |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : 475 hPa (20 °C) |
| Vapour pressure at 50 °C | : 1445 hPa (50 °C) |
| Critical pressure | : 61000 hPa |
| Relative vapour density at 20 °C | : 2.9 |
| Relative density | : 1.3 |
| Relative density of saturated gas/air mixture | : 1.9 |
| Density | : 1330 kg/m ³ |
| Solubility | : Moderately soluble in water. Substance sinks in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in chloroform. Soluble in tetrachloromethane. Soluble in dimethylformamide. Water: 2.0 g/100ml |
| Log Pow | : 1.25 (Experimental value) |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 0.00043 Pa.s (20 °C) |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : 13 - 22 vol % 450 - 780 g/m ³ |

9.2. Other information

| | |
|--------------------------|--|
| Specific conductivity | : 4300 pS/m |
| Saturation concentration | : 1535 g/m ³ |
| VOC content | : 100 % |
| Other properties | : Gas/vapour heavier than air at 20°C. Clear. Highly volatile. May generate electrostatic charges. |

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SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts on exposure to water and heat with (some) metals. Decomposes slowly on exposure to water (moisture): release of toxic and corrosive gases/vapours (hydrogen chloride). On heating under increased oxygen concentration: (increased) risk of fire/explosion. On burning: release of toxic and corrosive gases/vapours (hydrogen chloride, carbon monoxide - carbon dioxide). Violent to explosive reaction with many compounds e.g. with (some) acids, with (some) metal powders and with (strong) oxidizers: (increased) risk of fire/explosion and formation of small quantities of phosgene.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Dichloromethane (75-09-2) | |
|---------------------------|---|
| LD50 oral rat | 1600 mg/kg (Rat) |
| LD50 dermal rabbit | > 2000 mg/kg (Rabbit; Literature study) |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
IARC group : 2A

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Classification concerning the environment: not applicable.
Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). TA-Luft Klasse 5.2.5/l.
Ecology - water : Water pollutant (surface water). Ground water pollutant. Slightly harmful to fishes (LC50(96h) 100-1000 mg/l). Slightly harmful to invertebrates (Daphnia) (EC50 (48h): 100 - 1000 mg/l). Practically non-toxic to algae (EC50 >100 mg/l). Toxic to bacteria. Inhibition of activated sludge.

| Dichloromethane (75-09-2) | |
|---------------------------|--|
| LC50 fish 1 | 193 mg/l (LC50; 96 h; Pimephales promelas) |
| EC50 Daphnia 1 | 168.2 mg/l (EC50; 48 h) |

12.2. Persistence and degradability

| Dichloromethane (75-09-2) | |
|-------------------------------|--|
| Persistence and degradability | Not readily biodegradable in water. Biodegradable in the soil. |

12.3. Bioaccumulative potential

| Dichloromethane (75-09-2) | |
|---------------------------|--------------|
| BCF fish 1 | 2 - 40 (BCF) |

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| | |
|----------------------------------|--|
| Dichloromethane (75-09-2) | |
| Log Pow | 1.25 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| | |
|----------------------------------|---|
| Dichloromethane (75-09-2) | |
| Surface tension | 0.028 N/m (20 °C) |
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods






Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an incinerator for chlorinated waste materials with energy recovery. Do not discharge into surface water (Directive 2000/60/EC, Council Decision 2455/2001/EC).

Additional information : LWCA (the Netherlands): KGA category 04. Hazardous waste according to Directive 2008/98/EC.

European List of Waste (LoW) code : 07 01 03* - organic halogenated solvents, washing liquids and mother liquors

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR | IMDG | IATA | ADN | RID |
|--|---|---|--|---|
| 14.1. UN number | | | | |
| 1593 | 1593 | 1593 | 1593 | 1593 |
| 14.2. UN proper shipping name | | | | |
| DICHLOROMETHANE | DICHLOROMETHANE | Dichloromethane | DICHLOROMETHANE | DICHLOROMETHANE |
| Transport document description | | | | |
| UN 1593 DICHLOROMETHANE, 6.1, III, (E) | UN 1593 DICHLOROMETHANE, 6.1, III | UN 1593 Dichloromethane, 6.1, III | UN 1593 DICHLOROMETHANE, 6.1, III | UN 1593 DICHLOROMETHANE, 6.1, III |
| 14.3. Transport hazard class(es) | | | | |
| 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| III | III | III | III | III |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment : No | Dangerous for the environment : No Marine pollutant : No | Dangerous for the environment : No | Dangerous for the environment : No | Dangerous for the environment : No |
| No supplementary information available | | | | |

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : T1
Special provisions (ADR) : 516
Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E1

Dichloromethane

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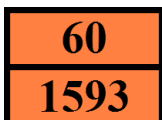
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| | |
|---|---------------------------|
| Packing instructions (ADR) | : P001, IBC03, LP01, R001 |
| Mixed packing provisions (ADR) | : MP19 |
| Portable tank and bulk container instructions (ADR) | : T7 |
| Portable tank and bulk container special provisions (ADR) | : TP2 |
| Tank code (ADR) | : L4BH |
| Tank special provisions (ADR) | : TU15, TE19 |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 2 |
| Special provisions for carriage - Packages (ADR) | : V12 |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV13, CV28 |
| Special provisions for carriage - Operation (ADR) | : S9 |
| Hazard identification number (Kemler No.) | : 60 |
| Orange plates | : |



| | |
|-------------------------------|------|
| Tunnel restriction code (ADR) | : E |
| EAC code | : Z2 |

- Transport by sea

| | |
|------------------------------------|---|
| Transport regulations (IMDG) | : Subject |
| Limited quantities (IMDG) | : 5 L |
| Excepted quantities (IMDG) | : E1 |
| Packing instructions (IMDG) | : P001, LP01 |
| IBC packing instructions (IMDG) | : IBC03 |
| IBC special provisions (IMDG) | : B8 |
| Tank instructions (IMDG) | : T7 |
| Tank special provisions (IMDG) | : TP2 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-A |
| Stowage category (IMDG) | : A |
| Properties and observations (IMDG) | : Colourless, volatile liquid with heavy vapours. Boiling point: 40°C. When involved in a fire, evolves extremely toxic fumes (phosgene). Toxic if swallowed, by skin contact or by inhalation. |
| MFAG-No | : 160 |

- Air transport

| | |
|--|-----------------------------|
| Transport regulations (IATA) | : Subject to the provisions |
| PCA Excepted quantities (IATA) | : E1 |
| PCA Limited quantities (IATA) | : Y642 |
| PCA limited quantity max net quantity (IATA) | : 2L |
| PCA packing instructions (IATA) | : 655 |
| PCA max net quantity (IATA) | : 60L |
| CAO packing instructions (IATA) | : 663 |
| CAO max net quantity (IATA) | : 220L |
| ERG code (IATA) | : 6L |

- Inland waterway transport

| | |
|---------------------------|------------------|
| Classification code (ADN) | : T1 |
| Special provisions (ADN) | : 516, 802 |
| Limited quantities (ADN) | : 5 L |
| Excepted quantities (ADN) | : E1 |
| Carriage permitted (ADN) | : T |
| Equipment required (ADN) | : PP, EP, TOX, A |

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Ventilation (ADN) : VE02

Number of blue cones/lights (ADN) : 0

- Rail transport

Transport regulations (RID) : Subject

Classification code (RID) : T1

Special provisions (RID) : 516

Limited quantities (RID) : 5L

Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Special packing provisions (RID) : B8

Mixed packing provisions (RID) : MP19

Portable tank and bulk container instructions (RID) : T7

Portable tank and bulk container special provisions (RID) : TP2

Tank codes for RID tanks (RID) : L4BH

Special provisions for RID tanks (RID) : TU15

Transport category (RID) : 2

Special provisions for carriage – Packages (RID) : W12

Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28, CW31

Colis express (express parcels) (RID) : CE8

Hazard identification number (RID) : 60

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Dichloromethane is not on the REACH Candidate List

Dichloromethane is not on the REACH Annex XIV List

VOC content : 100 %

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 2, hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 149)

WGK remark : Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

Waterbevaarlijkheid : 1 - Black list substance

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

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Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|-------|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| EC50 | Median effective concentration |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| Carc. 2 | Carcinogenicity, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Narcosis |
| H351 | Suspected of causing cancer |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H336 | May cause drowsiness or dizziness |

SDS ISOLAB

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product