

Aaron Chemistry GmbH

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010
Version 7.1 Revision Date 12.08.2015
Print Date 08.02.2016

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

1.1 Product identifiers

Product name : Dichloromethane
Product Number : 52097
Brand : Aaron Chemistry GmbH
Index-No. : 602-004-00-3
CAS-No. : 75-09-2

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Aaron Chemistry GmbH
Am Fischweiher 41-43
D-82481 Mittenwald
Telephone : +49 8823 917521
Fax : +49 8823 917523
E-mail address : info@aaron-chemistry.de

1.4 Emergency telephone number

Emergency Phone # +49 8823 917521

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin irritation (Category 2), H315
Eye irritation (Category 2), H319
Carcinogenicity (Category 2), H351
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
Specific target organ toxicity - repeated exposure (Category 2), Liver, Blood, Central nervous system, H373

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

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 (Liver, Blood, Central nervous system) through prolonged or repeated exposure.

Precautionary statement(s)

P261 Avoid breathing vapours.
 P281 Use personal protective equipment as required.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : Methylene chloride
 DCM

Formula : CH₂Cl₂
 Molecular weight : 84,93 g/mol
 CAS-No. : 75-09-2
 EC-No. : 200-838-9
 Index-No. : 602-004-00-3
 Registration number : 01-2119480404-41-XXXX

Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component | Classification | Concentration |
|---------------------------|--|---------------|
| Methylene chloride | | |
| CAS-No. 75-09-2 | Skin Irrit. 2; Eye Irrit. 2; Carc. 2; STOT SE 3; STOT RE 2; H315, H319, H351, H336, H335, H373, H373 | <= 100 % |
| EC-No. 200-838-9 | | |
| Index-No. 602-004-00-3 | | |

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Heat sensitive. Store under inert gas.

Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Derived No Effect Level (DNEL)

| Application Area | Exposure routes | Health effect | Value |
|------------------|-----------------|------------------------|-----------|
| Workers | Inhalation | Acute systemic effects | 706 mg/m3 |

| | | | |
|-----------|--------------|----------------------------|------------------------|
| Workers | Inhalation | Long-term systemic effects | 353 mg/m ³ |
| Workers | Skin contact | Long-term systemic effects | 4750mg/kg BW/d |
| Consumers | Ingestion | Long-term systemic effects | 0,06mg/kg BW/d |
| Consumers | Inhalation | Long-term systemic effects | 88,3 mg/m ³ |
| Consumers | Skin contact | Long-term systemic effects | 2395mg/kg BW/d |
| Consumers | Inhalation | Acute systemic effects | 353 mg/m ³ |

Predicted No Effect Concentration (PNEC)

| Compartment | Value |
|-------------------------------|-------------|
| Soil | 0,583 mg/kg |
| Marine water | 0,194 mg/l |
| Fresh water | 0,54 mg/l |
| Marine sediment | 1,61 mg/kg |
| Fresh water sediment | 4,47 mg/kg |
| Onsite sewage treatment plant | 26 mg/l |
| Aquatic intermittent release | 0,27 mg/l |

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Splash contact

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm

Break through time: 148 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| a) Appearance | Form: liquid Colour: colourless |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | Melting point/range: -97 °C |
| f) Initial boiling point and boiling range | 39,8 - 40 °C |
| g) Flash point | No data available |
| h) Evaporation rate | 0,71 |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 19 %(V) Lower explosion limit: 12 %(V) |
| k) Vapour pressure | 470,9 hPa at 20,0 °C |
| l) Vapour density | 2,93 - (Air = 1.0) |
| m) Relative density | 1,325 g/mL at 25 °C |
| n) Water solubility | slightly soluble |
| o) Partition coefficient: n-octanol/water | log Pow: 1,25 |
| p) Auto-ignition temperature | 556,1 °C 662,0 °C |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

9.2 Other safety information

Relative vapour density 2,93 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

Contains the following stabiliser(s):

2-Methyl-2-butene (>0,005 - <0,015 %)

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks. Exposure to sunlight.

10.5 Incompatible materials

Alkali metals, Aluminum, Strong oxidizing agents, Bases, Amines, Magnesium, Strong acids and strong bases, Vinyl compounds

10.6 Hazardous decomposition products

Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - > 2.000 mg/kg

LC50 Inhalation - Rat - 52.000 mg/m³

LD50 Dermal - Rat - > 2.000 mg/kg
(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 24 h
(Draize Test)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes. - 24 h
(Draize Test)

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Rat

DNA damage

Carcinogenicity

Carcinogenicity - Rat - Inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Endocrine: Tumors.

Limited evidence of carcinogenicity in animal studies

Suspected human carcinogens

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Methylene chloride)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation.

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Inhalation - May cause damage to organs through prolonged or repeated exposure. - Central nervous system

Oral - May cause damage to organs through prolonged or repeated exposure. - Liver, Blood

Aspiration hazard

No data available

Additional Information

RTECS: PA8050000

Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood., Acts as a simple asphyxiant by displacing air., anesthetic effects, Difficulty in breathing, Headache, Dizziness, Prolonged or repeated contact with skin may cause., defatting, Dermatitis, Contact with eyes can cause., Redness, Blurred vision, Provokes tears., Effects due to ingestion may include., Gastrointestinal discomfort, Central nervous system depression, Paresthesia., Drowsiness, Convulsions, Conjunctivitis., Pulmonary edema. Effects may be delayed., Irregular breathing., Stomach/intestinal disorders, Nausea, Vomiting, Increased liver enzymes., Weakness, Heavy or prolonged skin exposure may result in the absorption of harmful amounts of material., Abdominal pain

SECTION 12: Ecological information

12.1 Toxicity

| | |
|---|--|
| Toxicity to fish | LC50 - Pimephales promelas (fathead minnow) - 193,00 mg/l - 96 h NOEC - Cyprinodon variegatus (sheepshead minnow) - 130 mg/l - 96 h |
| Toxicity to daphnia and other aquatic invertebrates | EC50 - Daphnia magna (Water flea) - 1.682,00 mg/l - 48 h |

12.2 Persistence and degradability

| | |
|------------------|---|
| Biodegradability | Result: < 26 % - Not readily biodegradable. (OECD Test Guideline 301C) |
|------------------|---|

12.3 Bioaccumulative potential

Does not bioaccumulate.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

| | | |
|---------------|------------|------------|
| ADR/RID: 1593 | IMDG: 1593 | IATA: 1593 |
|---------------|------------|------------|

14.2 UN proper shipping name

| |
|--------------------------|
| ADR/RID: DICHLOROMETHANE |
| IMDG: DICHLOROMETHANE |
| IATA: Dichloromethane |

14.3 Transport hazard class(es)

| | | |
|--------------|-----------|-----------|
| ADR/RID: 6.1 | IMDG: 6.1 | IATA: 6.1 |
|--------------|-----------|-----------|

14.4 Packaging group

| | | |
|--------------|-----------|-----------|
| ADR/RID: III | IMDG: III | IATA: III |
|--------------|-----------|-----------|

14.5 Environmental hazards

| | | |
|-------------|---------------------------|----------|
| ADR/RID: no | IMDG Marine pollutant: no | IATA: no |
|-------------|---------------------------|----------|

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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

Methylene chloride

CAS-No.: 75-09-2

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)

Paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight shall not be: (a) placed on the market for the first time for supply to the general public or to professionals after 6 December 2010; (b) placed on the market for supply to the general public or to professionals after 6 December 2011; (c) used by professionals after 6 June 2012.

See Commission Regulation (EU) No 276/2010 for Conditions of restriction

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

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 (/*_*_ORGAN_REPEAT*/) through prolonged or repeated exposure. |

Further information

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