

Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



Dichloromethane ROTIDRY®Sept ≥ 99,9% (≤50 ppm H₂O)

article number: **5176**
Version: **3.0 en**
Replaces version of: 07.08.2018
Version: (2)

date of compilation: 08.04.2016
Revision: 02.04.2020

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

1.1 Product identifier

| | |
|---------------------------------|------------------------|
| Identification of the substance | Dichloromethane |
| Article number | 5176 |
| Registration number (REACH) | 01-2119480404-41-XXXX |
| Index No | 602-004-00-3 |
| EC number | 200-838-9 |
| CAS number | 75-09-2 |

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

Identified uses: laboratory chemical
laboratory and analytical use

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone: +49 (0) 721 - 56 06 0
Telefax: +49 (0) 721 - 56 06 149
e-mail: sicherheit@carlroth.de
Website: www.carlroth.de

Competent person responsible for the safety data sheet: : Department Health, Safety and Environment

e-mail (competent person): sicherheit@carlroth.de

1.4 Emergency telephone number

Emergency information service **Poison Centre Munich: +49/(0)89 19240**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

| Classification acc. to GHS | | | |
|----------------------------|---|---------------------------|------------------|
| Section | Hazard class | Hazard class and category | Hazard statement |
| 3.2 | skin corrosion/irritation | (Skin Irrit. 2) | H315 |
| 3.3 | serious eye damage/eye irritation | (Eye Irrit. 2) | H319 |
| 3.6 | carcinogenicity | (Carc. 2) | H351 |
| 3.8D | specific target organ toxicity - single exposure (narcotic effects, drowsiness) | (STOT SE 3) | H336 |

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The most important adverse physicochemical, human health and environmental effects

Narcotic effects.

2.2 Label elements

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

Signal word

Warning

Pictograms

GHS07, GHS08



Hazard statements

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

Precautionary statements

Precautionary statements - prevention

| | |
|------|--|
| P261 | Avoid breathing mist/vapours/spray. |
| P280 | Wear protective gloves/eye protection. |

Precautionary statements - response

| | |
|----------------|--|
| P302+P352 | IF ON SKIN: Wash with plenty of 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. |

For professional users only

Labelling of packages where the contents do not exceed 125 ml

Signal word: **Warning**

Symbol(s)



| | |
|-----------|--|
| H351 | Suspected of causing cancer. |
| P280 | Wear protective gloves/eye protection. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |

2.3 Other hazards

There is no additional information.

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SECTION 3: Composition/information on ingredients

3.1 Substances

| | |
|-----------------------------|---------------------------------|
| Name of substance | Dichloromethane |
| Index No | 602-004-00-3 |
| Registration number (REACH) | 01-2119480404-41-XXXX |
| EC number | 200-838-9 |
| CAS number | 75-09-2 |
| Molecular formula | CH ₂ Cl ₂ |
| Molar mass | 84,93 g/mol |

Impurities and additives, classification acc. to EU regulation

| Name of substance | Identifier | Conc. | Classification acc. to 1272/2008/EC |
|-------------------|--|-------------|--|
| Amylene | CAS No 513-35-9 EC No 208-156-3 | 20 – 60 ppm | Flam. Liq. 2 / H225 Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Muta. 2 / H341 Carc. 2 / H351 STOT SE 3 / H336 Asp. Tox. 1 / H304 Aquatic Chronic 2 / H411 |

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off contaminated clothing.

Following inhalation

Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Rinse skin with water/shower. In case of skin irritation, consult a physician.

Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

Following ingestion

Rinse mouth. Do not induce vomiting. Aspiration hazard. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Irritation, Vertigo, Nausea, Vomiting, Narcosis, Cough, Dizziness, Drowsiness, Dyspnoea, Corneal opacity

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4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings
water spray, foam, dry extinguishing powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

The product itself does not burn.

Hazardous combustion products

In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO₂), hydrogen chloride (HCl), phosgene

5.3 Advice for firefighters

Vapours are heavier than air. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Do not breathe vapour/spray. Avoid contact with skin and eyes. Use personal protective equipment as required. Provide adequate ventilation.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide adequate ventilation as well as local exhaust at critical locations. Avoid exposure. When not in use, keep containers tightly closed.

Advice on general occupational hygiene

Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice

• Ventilation requirements

Use local and general ventilation.

• Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

| Country | Name of agent | CAS No | Notation | Identifier | TWA [ppm] | TWA [mg/m ³] | STEL [ppm] | STEL [mg/m ³] | Ceiling-C [ppm] | Ceiling-C [mg/m ³] | Source |
|---------|--------------------------------------|---------|----------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|-------------|
| EU | methylene chloride (dichloromethane) | 75-09-2 | | IOELV | 100 | 353 | 200 | 706 | | | 2017/164/EU |
| MT | methylene chloride (dichloromethane) | 75-09-2 | | OELV | 100 | 353 | 200 | 706 | | | CAP. 424 |

Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs/DMELs/PNECs and other threshold levels

• human health values

| Endpoint | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
|----------|-----------------------|------------------------------------|-------------------|----------------------------|
| DNEL | 706 mg/m ³ | human, inhalatory | worker (industry) | acute - systemic effects |
| DNEL | 176 mg/m ³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| DNEL | 12 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |

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• environmental values

| Endpoint | Threshold level | Environmental compartment |
|----------|-----------------|------------------------------|
| PNEC | 0,27 mg/l | water |
| PNEC | 0,31 mg/l | freshwater |
| PNEC | 0,031 mg/l | marine water |
| PNEC | 26 mg/l | sewage treatment plant (STP) |
| PNEC | 2,57 mg/kg | freshwater sediment |
| PNEC | 0,26 mg/kg | marine sediment |
| PNEC | 0,33 mg/kg | soil |

• relevant PNECs of components of the mixture

| Name of substance | CAS No | Endpoint | Threshold level | Environmental compartment |
|-------------------|----------|----------|-----------------|------------------------------|
| Amylene | 513-35-9 | PNEC | 0,37 mg/l | freshwater |
| Amylene | 513-35-9 | PNEC | 0,37 mg/l | marine water |
| Amylene | 513-35-9 | PNEC | 5,77 mg/l | sewage treatment plant (STP) |
| Amylene | 513-35-9 | PNEC | 8,1 mg/kg | freshwater sediment |
| Amylene | 513-35-9 | PNEC | 8,1 mg/kg | marine sediment |
| Amylene | 513-35-9 | PNEC | 1,44 mg/kg | soil |

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

Skin protection



• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

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- **type of material**

FKM: fluoro-elastomer

- **material thickness**

0,7mm.

- **breakthrough times of the glove material**

>120 minutes (permeation: level 4)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: AX (gas filters and combined filters against low-boiling point organic compounds, colour code: Brown).

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

| | |
|-----------------|----------------|
| Physical state | liquid (fluid) |
| Colour | colourless |
| Odour | mild sweet |
| Odour threshold | 250 ppm |

Other physical and chemical parameters

| | |
|---|---------------------------------|
| pH (value) | (neutral) |
| Melting point/freezing point | -95 °C at 101,3 kPa |
| Initial boiling point and boiling range | 40 °C at 101,3 kPa |
| Flash point | not applicable |
| Evaporation rate | no data available |
| Flammability (solid, gas) | not relevant (fluid) |
| <u>Explosive limits</u> | |
| • lower explosion limit (LEL) | 13 vol% |
| • upper explosion limit (UEL) | 22 vol% |
| Explosion limits of dust clouds | not relevant |
| Vapour pressure | 475 hPa at 20 °C |
| Density | 1,33 g/cm ³ at 20 °C |
| Vapour density | 2,93 (air = 1) |

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| | |
|--------------------------------------|--|
| Bulk density | Not applicable |
| Relative density | Information on this property is not available. |
| <u>Solubility(ies)</u> | |
| Water solubility | ~ 20 g/l at 20 °C |
| <u>Partition coefficient</u> | |
| n-octanol/water (log KOW) | 1,25 (pH value: 7, 20 °C) (ECHA) |
| Auto-ignition temperature | 605 °C |
| Decomposition temperature | no data available |
| Viscosity | |
| • dynamic viscosity | 0,43 mPa s at 20 °C |
| Explosive properties | Shall not be classified as explosive |
| Oxidising properties | none |
| 9.2 Other information | |
| Temperature class (EU, acc. to ATEX) | T1 (Maximum permissible surface temperature on the equipment: 450°C) |

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

May cause decomposition by long-term light influence.

10.3 Possibility of hazardous reactions

Danger of explosion: Alkali metals, Nitric acid, Aluminium, Amines, Nitrogen oxides (NO_x), Nitric acid, Oxygen, Sodium, Potassium,
Exothermic reaction with: Alkaline earth metal, Metal powder, Amide

10.4 Conditions to avoid

Direct light irradiation.

10.5 Incompatible materials

plastic and rubber, Light metals, Steel

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Shall not be classified as acutely toxic.

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| Exposure route | Endpoint | Value | Species | Source |
|----------------|----------|--------------|---------|--------|
| oral | LD50 | >2.000 mg/kg | rat | ECHA |
| dermal | LD50 | >2.000 mg/kg | rat | ECHA |

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties

Carcinogenicity:

Suspected of causing cancer

- **Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness.

- **Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

- **If swallowed**

vomiting, nausea, aspiration hazard

- **If in eyes**

Causes serious eye irritation, corneal opacity

- **If inhaled**

vertigo, dizziness, fatigue, narcosis

- **If on skin**

causes skin irritation

Other information

Other adverse effects: Circulatory collapse, Dyspnoea, Blood pressure drop, Unconsciousness, Liver and kidney damage

SECTION 12: Ecological information

12.1 Toxicity

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)

| Endpoint | Value | Species | Exposure time |
|----------|----------|---------|---------------|
| LC50 | 193 mg/l | fish | 96 h |

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Aquatic toxicity (chronic)

| Endpoint | Value | Species | Source | Exposure time |
|----------|------------|----------------|--------|---------------|
| LC50 | 471 mg/l | fish | ECHA | 8 d |
| EC50 | 2.590 mg/l | microorganisms | ECHA | 40 min |
| NOEC | 357 mg/l | fish | ECHA | 8 d |

12.2 Process of degradability

The substance is readily biodegradable.
Theoretical Oxygen Demand: 0,3768 mg/mg
Theoretical Carbon Dioxide: 0,5182 mg/mg

| Process | Degradation rate | Time |
|------------------|------------------|------|
| biotic/abiotic | 5 - 26 % | 28 d |
| oxygen depletion | 68 % | 28 d |

Degradability of components of the mixture

| Name of substance | CAS No | Process | Degradation rate | Time |
|-------------------|----------|------------------|------------------|------|
| Amylene | 513-35-9 | oxygen depletion | 7 % | 28 d |

12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)

1,25 (pH value: 7, 20 °C)

BCF

39 (ECHA)

12.4 Mobility in soil

Henry's law constant

0,002 Pa m³/mol at 24,8 °C

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

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13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport information

| | | |
|------|---|---|
| 14.1 | UN number | 1593 |
| 14.2 | UN proper shipping name | DICHLOROMETHANE |
| | Hazardous ingredients | Dichloromethane |
| 14.3 | Transport hazard class(es) |  |
| | Class | 6.1 (toxic substances) |
| 14.4 | Packing group | III (substance presenting low danger) |
| 14.5 | Environmental hazards | none (non-environmentally hazardous acc. to the dangerous goods regulations) |
| 14.6 | Special precautions for user | |
| | | Provisions for dangerous goods (ADR) should be complied within the premises. |
| 14.7 | Transport in bulk according to Annex II of MARPOL and the IBC Code | |
| | | The cargo is not intended to be carried in bulk. |
| 14.8 | Information for each of the UN Model Regulations | |
| | • Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) | |
| | UN number | 1593 |
| | Proper shipping name | DICHLOROMETHANE |
| | Particulars in the transport document | UN1593, DICHLOROMETHANE, 6.1, III, (E) |
| | Class | 6.1 |
| | Classification code | T1 |
| | Packing group | III |
| | Danger label(s) | 6.1 |
| |  | |
| | Special provisions (SP) | 516, 802(ADN) |
| | Excepted quantities (EQ) | E1 |
| | Limited quantities (LQ) | 5 L |
| | Transport category (TC) | 2 |
| | Tunnel restriction code (TRC) | E |

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| | |
|--|--------------------------------------|
| Hazard identification No | 60 |
| • International Maritime Dangerous Goods Code (IMDG) | |
| UN number | 1593 |
| Proper shipping name | DICHLOROMETHANE |
| Particulars in the shipper's declaration | UN1593, DICHLOROMETHANE, 6.1, III |
| Class | 6.1 |
| Marine pollutant | - |
| Packing group | III |
| Danger label(s) | 6.1 |
| | |
| Special provisions (SP) | - |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 L |
| EmS | F-A, S-A |
| Stowage category | A |
| Segregation group | 10 - Liquid halogenated hydrocarbons |
| • International Civil Aviation Organization (ICAO-IATA/DGR) | |
| UN number | 1593 |
| Proper shipping name | Dichloromethane |
| Particulars in the shipper's declaration | UN1593, Dichloromethane, 6.1, III |
| Class | 6.1 |
| Packing group | III |
| Danger label(s) | 6.1 |
| | |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 2 L |

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

- **Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)**
Not listed.
- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**
Not listed.

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- **Regulation 850/2004/EC on persistent organic pollutants (POP)**

Not listed.

- **Restrictions according to REACH, Annex XVII**

| Name of substance | CAS No | Wt% | Type of registration | Conditions of restriction | No |
|-------------------|---------|-----|-------------------------|---------------------------|----|
| Dichloromethane | 75-09-2 | 100 | 1907/2006/EC annex XVII | R59 | 59 |
| Dichloromethane | | 100 | 1907/2006/EC annex XVII | R3 | 3 |

Legend

R3

1. Shall not be used in:
 - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and jokes,
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
 - can be used as fuel in decorative oil lamps for supply to the general public, and,
 - present an aspiration hazard and are labelled with R65 or H304,
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
 - (a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
 - (b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
 - (c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

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Legend

R59

- Paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight shall not be:
 - placed on the market for the first time for supply to the general public or to professionals after 6 December 2010;
 - placed on the market for supply to the general public or to professionals after 6 December 2011;
 - used by professionals after 6 June 2012.For the purposes of this entry:
 - 'professional' means any natural or legal person, including workers and self-employed workers undertaking paint stripping in the course of their professional activity outside an industrial installation;
 - 'industrial installation' means a facility used for paint stripping activities.
- By way of derogation from paragraph 1, Member States may allow on their territories and for certain activities the use, by specifically trained professionals, of paint strippers containing dichloromethane and may allow the placing on the market of such paint strippers for supply to those professionals. Member States making use of this derogation shall define appropriate provisions for the protection of the health and safety of those professionals using paint strippers containing dichloromethane and shall inform the Commission thereof. Those provisions shall include a requirement that a professional shall hold a certificate that is accepted by the Member State in which that professional operates, or provide other documentary evidence to that effect, or be otherwise approved by that Member State, so as to demonstrate proper training and competence to safely use paint strippers containing dichloromethane. The Commission shall prepare a list of the Member States which have made use of the derogation in this paragraph and make it publicly available over the Internet.
- A professional benefiting from the derogation referred to in paragraph 2 shall operate only in Member States which have made use of that derogation. The training referred to in paragraph 2 shall cover as a minimum:
 - awareness, evaluation and management of risks to health, including information on existing substitutes or processes, which under their conditions of use are less hazardous to the health and safety of workers;
 - use of adequate ventilation;
 - use of appropriate personal protective equipment that complies with Directive 89/686/EEC. Employers and self-employed workers shall preferably replace dichloromethane with a chemical agent or process which, under its conditions of use, presents no risk, or a lower risk, to the health and safety of workers. Professional shall apply all relevant safety measures in practice, including the use of personal protective equipment.
- Without prejudice to other Community legislation on workers protection, paint strippers containing dichloromethane in concentrations equal to or greater than 0,1 % by weight may be used in industrial installations only if the following minimum conditions are met:
 - effective ventilation in all processing areas, in particular for the wet processing and the drying of stripped articles: local exhaust ventilation at strip tanks supplemented by forced ventilation in those areas, so as to minimise exposure and to ensure compliance, where technically feasible, with relevant occupational exposure limits;
 - measures to minimise evaporation from strip tanks comprising: lids for covering strip tanks except during loading and unloading; suitable loading and unloading arrangements for strip tanks; and wash tanks with water or brine to remove excess solvent after unloading;
 - measures for the safe handling of dichloromethane in strip tanks comprising: pumps and pipework for transferring paint stripper to and from strip tanks; and suitable arrangements for safe cleaning of tanks and removal of sludge;
 - personal protective equipment that complies with Directive 89/686/EEC comprising: suitable protective gloves, safety goggles and protective clothing; and appropriate respiratory protective equipment where compliance with relevant occupational exposure limits cannot be otherwise achieved;
 - adequate information, instruction and training for operators in the use of such equipment.
- Without prejudice to other Community provisions concerning the classification, labelling and packaging of substances and mixtures, by 6 December 2011 paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight shall be visibly, legibly and indelibly marked as follows:
'Restricted to industrial use and to professionals approved in certain EU Member States - verify where use is allowed.'

| Name acc. to inventory | CAS No | Wt% | Listed in | Remarks |
|------------------------|---------|-----|-----------|---------|
| dichloromethane | 75-09-2 | 100 | Annex X | |

Legend

annex X List of priority substances in the field of water policy

• Restrictions according to REACH, Title VIII

None.

• List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

not listed

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• Seveso Directive

| 2012/18/EU (Seveso III) | | | |
|-------------------------|---------------------------------------|---|-------|
| No | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
| | not assigned | | |

• Directive 75/324/EEC relating to aerosol dispensers

Filling batch

Deco-Paint Directive (2004/42/EC)

| | |
|-------------|--------------------|
| VOC content | 100 % 1.330 g/l |
|-------------|--------------------|

Directive on industrial emissions (VOCs, 2010/75/EU)

| | |
|-------------|-----------|
| VOC content | 100 % |
| VOC content | 1.330 g/l |

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

not listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

| Name of substance | CAS No | Remarks | Threshold for re-releases to air (kg/year) | Threshold for re-releases to water (kg/year) | Threshold for re-releases to land (kg/year) |
|-------------------|---------|---------|--|--|---|
| Dichloromethane | 75-09-2 | | 1 000 | 10 | 10 |

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

| Name acc. to inventory | CAS No | Listed in | Remarks |
|------------------------|---------|-----------|---------|
| dichloromethane | 75-09-2 | Annex X | |

Legend

annex X

List of priority substances in the field of water policy

Regulation 98/2013/EU on the marketing and use of explosives precursors

not listed

Regulation 111/2005/EC laying down rules for the monitoring of trade between the Community and third countries in drug precursors

not listed

National inventories

Substance is listed in the following national inventories:

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| Country | National inventories | Status |
|---------|----------------------|---------------------|
| AU | AICS | substance is listed |
| CA | DSL | substance is listed |
| CN | IECSC | substance is listed |
| EU | ECSI | substance is listed |
| EU | REACH Reg. | substance is listed |
| JP | CSCL-ENCS | substance is listed |
| KR | KECI | substance is listed |
| MX | INSQ | substance is listed |
| NZ | NZIoC | substance is listed |
| PH | PICCS | substance is listed |
| TR | CICR | substance is listed |
| TW | TCSI | substance is listed |
| US | TSCA | substance is listed |

Legend

| | |
|------------|---|
| AICS | Australian Inventory of Chemical Substances |
| CICR | Chemical Inventory and Control Regulation |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS) |
| DSL | Domestic Substances List (DSL) |
| ECSI | EC Substance Inventory (EINECS, ELINCS, NLP) |
| IECSC | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ | National Inventory of Chemical Substances |
| KECI | Korea Existing Chemicals Inventory |
| NZIoC | New Zealand Inventory of Chemicals |
| PICCS | Philippine Inventory of Chemicals and Chemical Substances |
| REACH Reg. | REACH registered substances |
| TCSI | Taiwan Chemical Substance Inventory |
| TSCA | Toxic Substance Control Act |

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|---------------------------|--|-----------------|
| 2.2 | | Pictograms: change in the listing (table) | yes |
| 8.1 | | Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table) | yes |
| 8.1 | | • human health values: change in the listing (table) | yes |
| 8.1 | | • relevant PNECs of components of the mixture: change in the listing (table) | yes |

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Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|-----------------|---|
| 2017/164/EU | Commission Directive establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU |
| Acute Tox. | acute toxicity |
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road) |
| Aquatic Chronic | hazardous to the aquatic environment - chronic hazard |
| Asp. Tox. | aspiration hazard |
| BCF | bioconcentration factor |
| CAP. 424 | Occupational Health and Safety Authority Act (CAP. 424) |
| Carc. | carcinogenicity |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| Ceiling-C | ceiling value |
| CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures |
| CMR | Carcinogenic, Mutagenic or toxic for Reproduction |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No-Effect Level |
| EC50 | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EmS | Emergency Schedule |
| Flam. Liq. | flammable liquid |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Code |
| index No | the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 |
| IOELV | indicative occupational exposure limit value |
| LC50 | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50 | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval |
| MARPOL | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant") |

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| Abbr. | Descriptions of used abbreviations |
|-------------|---|
| Muta. | germ cell mutagenicity |
| NLP | No-Longer Polymer |
| NOEC | No Observed Effect Concentration |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| ppm | parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr. | corrosive to skin |
| Skin Irrit. | irritant to skin |
| STEL | short-term exposure limit |
| STOT SE | specific target organ toxicity - single exposure |
| SVHC | Substance of Very High Concern |
| TWA | time-weighted average |
| VOC | Volatile Organic Compounds |
| vPvB | very Persistent and very Bioaccumulative |

Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)
- Dangerous Goods Regulations (DGR) for the air transport (IATA)
- International Maritime Dangerous Goods Code (IMDG)

List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text |
|------|---|
| H225 | highly flammable liquid and vapour |
| H302 | harmful if swallowed |
| H304 | may be fatal if swallowed and enters airways |
| H315 | causes skin irritation |
| H319 | causes serious eye irritation |
| H336 | may cause drowsiness or dizziness |
| H341 | suspected of causing genetic defects |
| H351 | suspected of causing cancer |
| H411 | toxic to aquatic life with long lasting effects |

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Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.