

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Dichloromethane > 99.8 % for analysis, ACS stabilized with 2-methyl-2-butene

Revision date: 18.08.2021

Product code: 07055

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

### 1.1. Product identifier

Dichloromethane > 99.8 % for analysis, ACS stabilized with 2-methyl-2-butene

REACH Registration Number: 01-2119480404-41-XXXX  
CAS No: 75-09-2  
Index No: 602-004-00-3  
EC No: 200-838-9

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

#### Use of the substance/mixture

Laboratory chemicals  
Industrial uses: Uses of substances as such or in preparations at industrial sites  
Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Uses advised against

Do not use for private purposes (household).

### 1.3. Details of the supplier of the safety data sheet

Company name: Fa. Bernd Kraft GmbH  
Street: Stempelstraße 6  
Place: D-47167 Duisburg  
Telephone: 0203/5194-0  
Telefax: 0203/5194-290  
e-mail: info@berndkraft.de  
Contact person: Abteilung Produktsicherheit  
Telephone: 0203/5194-107/117  
e-mail: produktsicherheit@berndkraft.de  
Internet: www.berndkraft.de  
Responsible Department: Abteilung Produktsicherheit

### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

### Further Information

No data available

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

Carc. 2; H351  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
STOT SE 3; H335  
STOT SE 3; H336  
STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

Signal word: Warning

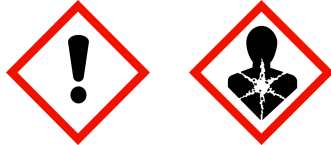
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**Pictograms:**



**Hazard statements**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs (kidneys, liver, blood) through prolonged or repeated exposure.

**Precautionary statements**

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
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.
P337+P313	If eye irritation persists: Get medical advice/attention.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

Sum formula:	CH <sub>2</sub> Cl <sub>2</sub>
Molecular weight:	84,93 g/mol

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
75-09-2	dichloromethane			100 %
	200-838-9	602-004-00-3	01-2119480404-41-XXXX	
	Carc. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT SE 3, STOT RE 2; H351 H315 H319 H335 H336 H373			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
75-09-2	200-838-9	dichloromethane	100 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg		

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures**

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**4.1. Description of first aid measures**

**General information**

First aider: Pay attention to self-protection!

**After inhalation**

Provide fresh air.  
Call a physician immediately.

**After contact with skin**

Wash immediately with: Water  
Take off immediately all contaminated clothing and wash it before reuse.  
Call a physician immediately.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Protect uninjured eye.

**After ingestion**

Observe risk of aspiration if vomiting occurs.  
Call a physician immediately.

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

Irritant, Vapours may cause drowsiness and dizziness.  
Dizziness, Inebriation  
Gastrointestinal complaints, Vomiting  
Unconsciousness, Cough  
Respiratory complaints, Dyspnoea  
Corneal opacity. Circulatory collapse  
Liver and kidney damage

**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**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**

Non-combustible liquids  
Hazardous combustion products  
In case of fire may be liberated:  
Hydrogen chloride (HCl)  
Phosgene

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.  
In case of fire and/or explosion do not breathe fumes.  
Avoid contact with skin, eyes and clothes.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures**

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**6.1. Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**

- Provide adequate ventilation.
- Use personal protection equipment.
- Avoid contact with skin, eyes and clothes.
- Remove persons to safety.
- Emergency procedures
- Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

**For containment**

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

- Avoid exposure - obtain special instructions before use.
- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Use personal protection equipment.
- Provide adequate ventilation. Avoid contact with skin, eyes and clothes.
- Do not breathe vapour/aerosol.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

- Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.
- Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

**Further information on handling**

- Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary.
- Take off immediately all contaminated clothing and wash it before reuse.

**7.2. Conditions for safe storage, including any incompatibilities**

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**Requirements for storage rooms and vessels**

Store in a well-ventilated place. Keep container tightly closed.  
Store in a place accessible by authorized persons only.  
Protect against: Light

**Further information on storage conditions**

Keep container tightly closed.  
storage temperature +2°C - +25°C

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
75-09-2	Methylene chloride	100	353		TWA (8 h)	
		200	706		STEL (15 min)	

**Biological limit values**

CAS No	Substance	Parameter	Value	Test material	Sampling time
75-09-2	Dichloromethane/Methylene chloride	COHb	4 %	Haemoglobin	Measure at end of shift

**DNEL/DMEL values**

CAS No	Substance	DNEL type	Exposure route	Effect	Value
75-09-2	dichloromethane	Worker DNEL, long-term	inhalation	systemic	353 mg/m <sup>3</sup>
		Worker DNEL, acute	inhalation	systemic	706 mg/m <sup>3</sup>
		Worker DNEL, long-term	dermal	systemic	12 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	88,3 mg/m <sup>3</sup>
		Consumer DNEL, acute	inhalation	systemic	353 mg/m <sup>3</sup>
		Consumer DNEL, long-term	dermal	systemic	5,82 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	0,06 mg/kg bw/day

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**PNEC values**

CAS No	Substance	
Environmental compartment		Value
75-09-2	dichloromethane	
Freshwater		0,31 mg/l
Freshwater (intermittent releases)		0,27 mg/l
Marine water		0,031 mg/l
Freshwater sediment		2,57 mg/kg
Marine sediment		0,26 mg/kg
Micro-organisms in sewage treatment plants (STP)		26 mg/l
Soil		0,33 mg/kg

**8.2. Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact: No data available

By short-term hand contact

Trade name/designation: KCL 890 Vitoject®

Recommended material: FKM (fluoro rubber) 0,7 mm

Wearing time with occasional contact (splashes): > 120 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Filtering device with filter or ventilator filtering device of type: AX

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**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	clear
Odour:	characteristic
Odour threshold:	No data available

**Changes in the physical state**

Melting point/freezing point:	-95 °C
Boiling point or initial boiling point and boiling range:	40 °C
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
No data available:	
Flash point:	X

**Flammability**

Solid/liquid:	No data available
Gas:	No data available

**Explosive properties**

No data available

Lower explosion limits:	13 vol. %
Upper explosion limits:	22 vol. %
Auto-ignition temperature:	605 °C

**Self-ignition temperature**

Solid:	No data available
Gas:	No data available

Decomposition temperature:	>120 °C
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pH-Value (at 20 °C):	neutral
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Viscosity / dynamic: (at 20 °C)	0,43 mPa·s
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Viscosity / kinematic:	No data available
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Flow time:	No data available
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Water solubility: (at 20 °C)	20 g/L
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**Solubility in other solvents**

No data available

Dissolution rate:	No data available
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Partition coefficient n-octanol/water:	No data available
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Dispersion stability:	No data available
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Vapour pressure: (at 20 °C)	475 hPa
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Vapour pressure:	No data available
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Density:	1,336 g/cm <sup>3</sup>
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Relative density:	No data available
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Bulk density: No data available  
Relative vapour density: No data available  
Particle characteristics: No data available

**9.2. Other information**

**Information with regard to physical hazard classes**

Sustaining combustion: No data available

**Other safety characteristics**

Solvent separation test: No data available  
Solvent content: No data available  
Solid content: No data available  
Evaporation rate: No data available

**Further Information**

Corrosive to metals.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available

**10.2. Chemical stability**

Protect against: Light

**10.3. Possibility of hazardous reactions**

Alkali metals  
Alkaline earth metal  
Nitric acid  
Amines  
Hydrocarbons, aromatic  
K, Na, Al

**10.4. Conditions to avoid**

No data available

**10.5. Incompatible materials**

Rubber articles  
plastics  
metals  
Light metal  
Steel

**10.6. Hazardous decomposition products**

In case of fire may be liberated:  
SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Toxicokinetics, metabolism and distribution**

Avoid exposure - obtain special instructions before use.

**Acute toxicity**

Based on available data, the classification criteria are not met.  
Pulmonary oedema  
Pneumonia



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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
75-09-2	dichloromethane				
	oral	LD50 > 2000 mg/kg	Rat	Other company data (1988)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Other company data (1988)	OECD Guideline 402

**Irritation and corrosivity**

Causes skin irritation.  
Causes serious eye irritation.  
Has degreasing effect on the skin.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of causing cancer. (dichloromethane)  
Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause respiratory irritation. (dichloromethane)  
May cause drowsiness or dizziness. (dichloromethane)

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure. (dichloromethane)

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards**

**Endocrine disrupting properties**

No data available

**Other information**

No data available

**Further information**

Irritant, Vapours may cause drowsiness and dizziness.  
Dizziness, Inebriation  
Gastrointestinal complaints, Vomiting  
Unconsciousness, Cough  
Respiratory complaints, Dyspnoea  
Corneal opacity. Circulatory collapse  
Liver and kidney damage

**SECTION 12: Ecological information**

**12.1. Toxicity**

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
75-09-2	dichloromethane					
	Acute fish toxicity	LC50	193 mg/l	96 h	Pimephales promelas	Bull Environ Contam Toxicol 20, 344-352
	Acute crustacea toxicity	EC50	27 mg/l	48 h	Daphnia magna	Study report (1979)
	Fish toxicity	NOEC	357 mg/l	8 d	Pimephales promelas	Bull Environ Contam Toxicol 39, 869-876 (
						According to test methods described by t
						According EPA publication
						other: ASTM E729-80

**12.2. Persistence and degradability**

68 %; 28 d; aerob  
OECD 301D  
Readily biodegradable (according to OECD criteria).

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
75-09-2	dichloromethane	1,25

**BCF**

CAS No	Chemical name	BCF	Species	Source
75-09-2	dichloromethane	> 0,91 - < 7,9		Washington, DC, US E

**12.4. Mobility in soil**

log Koc: 1,00

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.  
No data available

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.  
No data available

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations.  
Do not empty into drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.  
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.  
Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

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**SECTION 14: Transport information**

**Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 1593
<b>14.2. UN proper shipping name:</b>	DICHLOROMETHANE
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1
Classification code:	T1
Special Provisions:	516
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	2
Hazard No:	60
Tunnel restriction code:	E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 1593
<b>14.2. UN proper shipping name:</b>	DICHLOROMETHANE
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1
Classification code:	T1
Special Provisions:	516 802
Limited quantity:	5 L
Excepted quantity:	E1

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 1593
<b>14.2. UN proper shipping name:</b>	DICHLOROMETHANE
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1
Special Provisions:	-
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-A

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	UN 1593
<b>14.2. UN proper shipping name:</b>	DICHLOROMETHANE
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1
Limited quantity Passenger:	2 L
Passenger LQ:	Y642
Excepted quantity:	E1
IATA-packing instructions - Passenger:	655
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	663
IATA-max. quantity - Cargo:	220 L

**SECTION 15: Regulatory information**

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

**EU regulatory information**

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Restrictions on use (REACH, annex XVII):

Entry 3, Entry 59, Entry 75

Information according to 2012/18/EU  
(SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

#### National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water hazard class (D):

2 - obviously hazardous to water

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,8,9,11,12,13.

#### Relevant H and EUH statements (number and full text)

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 (kidneys, liver, blood) through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.

#### Further Information

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. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.