

Safety Data Sheet

according to Regulation (EC) No 1907/2006



EP 70 Komp. A

Revision date: 18.02.2021

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

1.1. Product identifier

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Substance name: 4,4'-Methylenbis(cyclohexylamin)
CAS No: 1761-71-3
EC No: 217-168-8
UFI: Q800-P0U6-Q00F-TVCA

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

Use of the substance/mixture

Adhesives, sealants

1.3. Details of the supplier of the safety data sheet

Company name: Hottinger Brüel & Kjaer
Street: Im Tiefen See 45
Place: D-64293 Darmstadt
Telephone: +49 (0)6151 803-0
Internet: www.hbm.com
Responsible Department: support@hbm.com

1.4. Emergency telephone number:

+49-30-18412-0

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1B

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause damage to organs through prolonged or repeated exposure.

Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Danger

Pictograms:



Hazard statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P312 Call a POISON CENTER if you feel unwell.

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P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P260 Do not breathe mist/vapours/spray.

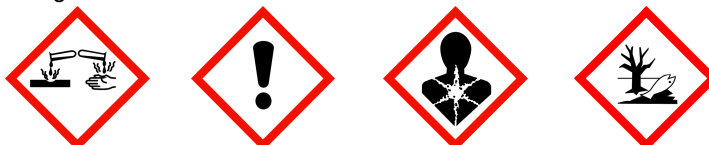
Special labelling of certain mixtures

Restricted to professional users.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



Hazard statements

H314

Precautionary statements

P280-P260

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	GHS Classification			
1761-71-3	4,4'-Methylenbis(cyclohexylamin)			100 %
	217-168-8			
	Acute Tox. 4, Skin Corr. 1B, STOT RE 2, Aquatic Chronic 2; H302 H314 H373 H411			

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			
1761-71-3	217-168-8	4,4'-Methylenbis(cyclohexylamin)	100 %	
	oral: ATE = 500 mg/kg			

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down. If unconscious but breathing normally, place in recovery position and seek medical advice. First aider: Pay attention to self-protection!

After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin irritation, consult a physician.

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.

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After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

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

No information available.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Dry extinguishing powder, Foam

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Do not breathe gas/vapour/aerosol. Provide adequate ventilation as well as local exhaust at critical locations. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Use personal protection equipment. Personal protection equipment: see section 8

For non-emergency personnel

Remove persons to safety.

For emergency responders

Remove persons to safety. First aider: Pay attention to self-protection!

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

Do not allow uncontrolled discharge of product into the environment.

6.3. Methods and material for containment and cleaning up

For cleaning up

Personal precautions, protective equipment and emergency procedures Avoid dust formation.

Other information

Take up mechanically, placing in appropriate containers for disposal. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

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

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7.1. Precautions for safe handling

Advice on safe handling

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Advice on protection against fire and explosion

No special technical protective measures are necessary.

Further information on handling

Wear personal protection equipment (refer to section 8). Do not empty into drains. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

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

Further information on storage conditions

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Protective and hygiene measures

When using do not eat or drink. Do not breathe gas/fumes/vapour/spray.

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Wear suitable protective clothing, gloves and eye/face protection.

Draw up and observe skin protection programme.

Eye/face protection

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. EN ISO 374

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.

Thickness of the glove material: $\geq 0,7\text{mm}$

Suitable gloves type NBR (Nitrile rubber)

Breakthrough time: $>480\text{ min}$

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.

Skin protection

Used working clothes should not be worn outside the work area. Separate storage of work clothes.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be

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worn. Filtering device (full mask or mouthpiece) with filter: a

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:	light yellow	
Odour:	Ammonia (NH ₃)	
pH-Value:		not determined

Changes in the physical state

Melting point:		not determined
Sublimation point:		not determined
Softening point:		not determined
Pour point:		not determined
not determined:		

Flash point:		160 °C
Sustaining combustion:		No data available

Flammability

Solid/liquid:		not determined
Gas:		not determined

Explosive properties

not determined

Lower explosion limits:		not determined
Upper explosion limits:		not determined
Auto-ignition temperature:		not determined

Self-ignition temperature

Solid:		not determined
Gas:		300 °C

Decomposition temperature:		not determined
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Oxidizing properties

not determined

Vapour pressure: (at 20 °C)		0.005 hPa
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Vapour pressure:		not determined
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Density (at 20 °C):		0,98 g/cm ³
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Bulk density:		not determined
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Water solubility:		The substance is not soluble in water.
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Solubility in other solvents

not determined

Partition coefficient n-octanol/water:		not determined
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Viscosity / dynamic: (at 20 °C)		80 mPa·s
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Viscosity / kinematic:		not determined
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Flow time:		not determined
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Relative vapour density:		not determined
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Evaporation rate: not determined
Solvent separation test: not determined
Solvent content: 0

9.2. Other information

Solid content: not determined
No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

No information available.

Acute toxicity

Harmful if swallowed.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1761-71-3	4,4'-Methylenbis(cyclohexylamin)				
	oral	ATE 500 mg/kg			

Irritation and corrosivity

Causes severe skin burns and eye damage.
Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (4,4'-Methylenbis(cyclohexylamin))

Aspiration hazard

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

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Specific effects in experiment on an animal

No information available.

Additional information on tests

No information available.

Practical experience

No information available.

11.2. Information on other hazards

Other information

No information available.

Further information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

No information available.

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1761-71-3	4,4'-Methylenbis(cyclohexylamin)	2.03

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN 2735

14.2. UN proper shipping name:

AMINES, LIQUID, CORROSIVE, N.O.S.,
(4,4'-Methylenbis(cyclohexylamin))

14.3. Transport hazard class(es):

8

14.4. Packing group:

II

Hazard label:

8



Classification code:

C7

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Special Provisions: 274
Limited quantity: 1L
Excepted quantity: E2
Transport category: 1
Hazard No: 80
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.,
(4,4'-Methylenbis(cyclohexylamin))
14.3. Transport hazard class(es): 8
14.4. Packing group: I
Hazard label: 8



Classification code: C7
Special Provisions: 274
Limited quantity: 1L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.,
(4,4'-Methylenbis(cyclohexylamine))
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8



Special Provisions: 274
Limited quantity: 1L
Excepted quantity: E0
EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.,
(4,4'-Methylenbis(cyclohexylamine))
14.3. Transport hazard class(es): 8
14.4. Packing group: I
Hazard label: 8



Special Provisions: A3 A803
Limited quantity Passenger: Forbidden
Passenger LQ: Forbidden
Excepted quantity: E0
IATA-packing instructions - Passenger: 850

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IATA-max. quantity - Passenger: 0.5 L
IATA-packing instructions - Cargo: 854
IATA-max. quantity - Cargo: 2.5 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

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.

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,6,9.

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Klebstoff	-	-	-	-	-	-	-	

LCS: Life cycle stages

PC: Product categories

ERC: Environmental release categories

TF: Technical functions

SU: Sectors of use

PROC: Process categories

AC: Article categories