

Product name: HEBA-ACRYL-Liquid COLD**Article No.: 50200****Print date:** 23. April 2020**Revision date:** 30.03.2020

1. Chemical Product and Company Identification

1.1 Product identifier: HEBA-ACRYL-Liquid COLD**1.2 Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Creation of otoplastics.

1.3 Details of the supplier of the safety data sheet**Manufacturer / distributor identification**

Company: HEBA- OTOPLASTIK Labortechnik u. Einrichtungs-
GmbH & Co. KG
Hauptstr. 42 D-63853 Mömlingen
Phone: +49 6022 / 681600 Fax: +49 6022 / 31663
E-Mail: Info@HEBA.de www.HEBA.de

1.4 Emergency telephone number:

Toxic emergency call Munich + 49 89 19240 (Toxicological department of the 2nd medical clinic)

2. Hazards identification

2.1 Classification of the substance or mixture**Regulation (EC) No. 1272/2008**

Hazard categories:

Flammable liquid: Flam. Liq. 2

Skin corrosion/irritation: Skin Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

2.2 Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

Methyl methacrylate

1,4-Butandiol dimethacrylate

Signal word: Danger**Pictograms:****Hazard statements**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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H335 May cause respiratory irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

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

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

 P370+P378 In case of fire: Use carbon dioxide (CO₂), foam or dry powder to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to as hazardous waste - in accordance with local and national legislation - suitable, approved incinerator for combustible organ. waste.

2.3 Other hazards

no information available.

3. Composition / information on ingredients

3.1 Mixtures
Chemical characterization

Mixture based on methyl methacrylate

Hazard components

CAS No.	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
80-62-0	Methyl methacrylate			90-< 95%
	201-297-1		01-2119452498-28	
	Flam. Liq. 1, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H224 H315 H317 H335			
2082-81-7	1,4 Butandiol dimethacrylate			5-< 10 %
	218-218-16		01-2119967415-30	
	Skin Sens. 1; H317			

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

4. First aid measures

4.1 Description of first aid measures
General information: Remove contaminated, saturated clothing immediately. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.

After inhalation: Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

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After contact with skin: After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion: Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed: Causes skin irritation. Can irritate the respiratory tract. May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed: Treat symptomatically

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media: Water

5.2 Special hazards arising from the substance or mixture: Highly flammable liquid and vapor. Can polymerize when heated. Airtightly sealed containers can explode explosively when heated.

5.3 Advice for firefighters: Wear self-contained breathing apparatus and chemical protective clothing. Full protection suit.

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.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Wear protective gloves and eye / face protection. Avoid breathing steam. See section: 8

6.2 Environmental precautions: Do not allow uncontrolled discharge of product into the environment. Danger of explosion.

6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

7. Handling and storage

7.1 Precautions for safe handling:

Advice on safe handling: If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

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Advice on protection against fire and explosion: Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels: Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage: Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

7.3 Specific end use(s): Manufacture of otolastic products.

8. Exposure controls / personal protection

8.1 Control parameters

Exposure limits (EH 40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
80-62-6	Methyl methacrylate	50 100	208 416		TWA (8h) STEL (15 min)	WEL WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
80-62-6	Methyl methacrylate			
	Worker DNEL, long-term	inhalation		208 mg/m ³
	Worker DNEL, long-term	dermal		17 mg/kg bw/day

8.2 Exposure controls

Appropriate engineering controls: If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray..

Protective and hygiene measures: 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.

Eye/face protection: Wear eye protection/face protection.

Hand protection: Wear suitable protective gloves. To protect against splashes: butyl; EN 374. To protect against immersion: butyl; 0.7 mm or thicker, EN 374. The suitability of gloves should be coordinated with the manufacturer. In the event of contamination or if the Breakthrough time is exceeded, change gloves. Resistance of the glove material: see Glove manufacturer information.

Skin protection: Flame-retardant protective clothing. Wear anti-static footwear and clothing.

Respiratory protection: Wear suitable respiratory protection if technical measures are inadequate or not available and an exposure is to be expected that exceeds the DNEL (derived exposure level below which the substance does not impair human health). A suitable breathing mask with type A filter (EN141 or EN405) is recommended. A self-contained breathing apparatus may be necessary to generate particularly high vapor concentrations.

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: liquid
Color: colorless
Odor: characteristic

pH-Value: not determined

Changes in the physical state

Melting point: - 48 °C
Initial boiling and boiling range: 100,5 °C
Flash point: 10 °C

Flammability:

Solid: not applicable
Gas: not applicable
Lower explosion limits: 2,1 vol. %
Upper explosion limits: 12,5 vol. %
Ignition temperature: 421 °C

Auto-ignition temperature

Solid: not applicable
Gas: not applicable
Decomposition temperature: not determined

Oxidizing properties

Not oxidizing
Vapor pressure (at 20 °C): 36 hPa
Density (at 20 °C): 0,949 g/cm³
Water solubility (at 20 °C): 12,5 g/L

Solubility in other solvents

not determined
Partition coefficient: 1,38
Viscosity / dynamic (at 20 °C): 0,53 mPa.s
Vapour density (at 20 °C): 3,5
Evaporation rate: not determined

9.2 Other information

Solid content: not determined

10. Stability and reactivity

10.1 Reactivity: Flammable. Ignition hazard. Polymerizes exothermically in the presence of starters.

10.2 Chemical stability: The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions: Tends to polymerize if the product is heated for a long time or comes into contact with a catalyst. No known hazardous reactions.

10.4 Conditions to avoid: Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

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10.5 Incompatible materials: Polymerization catalysts such as peroxy or azo compounds, strong acids, alkalis and oxidizing agents. Oxides and salts of transition metals..

10.6 Hazardous decomposition products: No known hazardous decomposition products.

11. Toxicological information

11.1 Information on toxicological effects

Toxicokinetics, metabolism and distribution: The product has not been tested.

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

ATEmix tested

	Dose	Species	Source
LD50, oral	7870 mg/kg	Rat	
LD50, dermal	> 5000 mg/kg	Rabbit	
LC50, inhalation (vapour) (4 h)	78 mg/l	Rat	

CAS No	Chemical name				
	Expose route	Dose	Species	Source	Method
80-62-6	Methyl methacrylate				
	Oral	LD50 > 5000 mg/kg	Rat	OECD 401	
	Dermal	LD50 > 5000 mg/kg	Rabbit		
	Inhalation vapour	LC50 29,8 mg/l	Rat		
2082-81-7	1,4-Butandiol dimethacrylate				
	Oral	LD50 > 10000 mg/kg	Rat		
	Dermal	LD50 > 3000 mg/kg	Rabbit		

Irritation and corrosivity: Causes skin irritation. Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects: May cause an allergic skin reaction. (Methyl methacrylate; 1,4-Butandiol dimethacrylate).

Carcinogenic/mutagenic/toxic effects for reproduction: Based on available data, the classification criteria are not met.

STOT-single exposure: May cause respiratory irritation. (Methyl methacrylate).

STOT-repeated exposure: Based on available data, the classification criteria are not met.

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

Additional information on tests: The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

12. Ecological Information

12.1 Toxicity: Acute (short-term) fish toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method

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80-62-6	Methyl methacrylate					
	Acute fish toxicity	LC50 > 79 mg/l	96 h	Oncorhynchus mykiss (rainbow trout)	OECD 203	
	Acute algae toxicity	ErC50 > 110 mg/l	72 h	Selenastrum capricornutum	OECD 201	
	Acute crustacea toxicity	EC50 69 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202	
	Crustacea toxicity	NOEC 37 mg/l	21 d	Daphnia magna (Big water flea)	OECD 202	
2082-81-7	1,4-Butandiol dimethacrylate					
	Acute fish toxicity	LC50 32,5 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute crustacea toxicity	EC50 7,51 mg/l	48 h	Daphnia magna (Big water flea)	OECD 211	
	Crustacea toxicity	NOEC 7,51 mg/l		Selenastrum capricornutum		

12.2 Persistence and degradability: Biodegradable.

12.3 Bioaccumulative potential: On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment is unlikely.
 Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
80-62-6	Methyl methacrylate	1,38
2082-81-7	1,4-Butandiol dimethacrylate	3,1

12.4 Mobility in soil: Mobility in soil: No adsorption in soil or sediment.

12.5 Results of PBT and vPvB assesment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII..

12.6 Other adverse effects: Not information available.

Further information: ological effects: Avoid release to the environment.

13. Disposal considerations

13.1 Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues; hazardous waste

Contaminated packaging:

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Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14. Transport Information

Land transport (ADR/RID)

- 14.1 UN number:** UN 1247
- 14.2 UN proper shipping name:** METHYL METHACRYLATE MONOMER, STABILIZED
- 14.3 Transport hazard class(es):** 3
- 14.4 Packing group:** II
- Hazard label: 3
- Classification code: F1
- Limited quantity: 1 L
- Excepted quantity: E2
- Transport category: 2
- Hazard No: 339
- Tunnel restriction code: D/E
- Other applicable information (land transport)**
 SAPT: > 60 °C

Inland waterways transport (ADN)

- 14.1 UN number:** UN 1247
- 14.2 UN proper shipping name:** METHYL METHACRYLATE MONOMER, STABILIZED
- 14.3 Transport hazard class(es):** 3
- 14.4 Packing group:** II
- Hazard label: 3
- Classification code: F1
- Limited quantity: 1 L
- Excepted quantity: E2
- Other applicable information (land transport)**
 SAPT: > 60 °C

Marine transport (IMDG)

- 14.1 UN number:** UN 1247
- 14.2 UN proper shipping name:** METHYL METHACRYLATE MONOMER, STABILIZED
- 14.3 Transport hazard class(es):** 3
- 14.4 Packing group:** II
- Hazard label: 3
- Special Provisions: -
- Limited quantity: 1 L
- Excepted quantity: E2
- EmS: F-E, S-D
- Other applicable information (land transport)**

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SAPT: > 60 °C

Air transport (ICAO-TI/IATA-DGR)

- 14.1 UN number:** UN 1247
- 14.2 UN proper shipping name:** METHYL METHACRYLATE MONOMER, STABILIZED
- 14.3 Transport hazard class(es):** 3
- 14.4 Packing group:** II
- Hazard label: 3
- Classification code: F1
- Limited quantity Passenger: 1 L
- Passenger LQ: Y341
- Excepted quantity: E2
- IATA-packing instructions - Passenger: 353
- IATA-max. Quantity – Passenger: 5 L
- IATA-packing instructions - Cargo: 364
- IATA-max. Quantity – Cargo: 60 L

Other applicable information (land transport)

SAPT: > 60 °C

- 14.5 Environment hazards**
ENVIRONMENTALLY HAZARDOUS: no
- 14.6 Special precautions for user**
Warning: Combustible liquids.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
not applicable

15. Regulatory information

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

EU regulatory information

2010/75/EU (VOC): 90 % (854,1 g/l)

2004/42/EC (VOC): 90 % (854,1 g/l)

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

Additional information

To follow: 850/204/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils 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 contaminating class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions

- 15.2 Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

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16. Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam Liq. 2; H225	On basis of test data
Skin Irrt. 2; H315	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method

Relevant H and EUH statements (number and full text)

H224 Extremely flammable liquid and vapour.

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

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 data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)