

Printing date: 30.06.2023 Version No: 3.00 (replaces version 2.00) Revision: 30.06.2023

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

- · 1.1 Product identifier
- · Trade name: Histofluid
- · UFI: V410-R0R6-N00W-EH11
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the preparation:

Adhesive and quick-hardening mounting medium for microscopy

- · Uses advised against: No further relevant information available.
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Paul Marienfeld GmbH & Co. KG Am Wöllerspfad 4 97922 Lauda-Königshofen Germany

Tel.: +49 9343 6272 21 Fax: +49 9343 6272 25

Web: www.marienfeld-superior.com

· 1.4 Emergency telephone number:

Vergiftungs-Informations-Zentrale Freiburg

Tel.: +49 (0) 761 19240

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 3 H226 Flammable liquid and vapour.

Acute Tox. 4 H312 Harmful in contact with skin.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to the central nervous system, the kidneys, the liver and the

hearing organs through prolonged or repeated exposure. Route of exposure:

Inhalation.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms







· Signal word Warning

· Hazard-determining components of labelling:

reaction mass of ethylbenzene and xylene

Hazard statements

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.



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H335 May cause respiratory irritation.

H373 May cause damage to the central nervous system, the kidneys, the liver and the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.

Precautionary statements

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

smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Additional information:

EUH208 Contains methyl methacrylate, n-butyl methacrylate. May produce an allergic reaction.

· 2.3 Other hazards

- · Results of PBT and vPvB assessment
- · **PBT:** No · **vPvB:** No

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Dangerous components:		
EC number: 905-588-0	reaction mass of ethylbenzene and xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	50 - 70%
CAS: 80-62-6 EC number: 201-297-1 Index number: 607-035-00-6	methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	0.1 - 0.4%
CAS: 97-88-1 EC number: 202-615-1 Index number: 607-033-00-5	n-butyl methacrylate Flam. Liq. 3, H226; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	0.1 - 0.4%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

General information:

Take affected persons out of danger area and lay down.

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

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Safety data sheet

according to 1907/2006/EC, Article 31

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· After eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Seek medical treatment.

After swallowing:

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

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

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Carbon monoxide

Carbon dioxide

- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- · Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Wear protective clothing.

Keep away from ignition sources.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire and explosion protection:

Keep ignition sources away - Do not smoke.

Protect from heat.

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- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

DNEL(short/local)

· Ingredients with limit values that require monitoring at the workplace:		
CAS: 80-62-6 methyl methacrylate		
OEL (Ireland)	Short-term value: 100 ppm Long-term value: 50 ppm IOELV, Sens	
IOELV (EU)	Short-term value: 100 ppm Long-term value: 50 ppm	

DNELs		
reaction r	nass of ethylbenzene	and xylene
Oral	DNEL(long/systemic)	12.5 mg/kg bw/day (Consumer)
Dermal	DNEL(long/systemic)	125 mg/kg bw/day (Consumer)
		212 mg/kg bw/day (Workers (Industrial/Professional))
Inhalative	DNEL(long/local)	65.3 mg/m3 (Consumer)
		221 mg/m3 (Workers (Industrial/Professional))
	DNEL(long/systemic)	65.3 mg/m3 (Consumer)
		221 mg/m3 (Workers (Industrial/Professional))
	DNEL(short/local)	260 mg/m3 (Consumer)
		442 mg/m3 (Workers (Industrial/Professional))
	DNEL(short/systemic)	260 mg/m3 (Consumer)
		442 mg/m3 (Workers (Industrial/Professional))
CAS: 80-62-6 methyl methacrylate		
Oral	DNEL(long/systemic)	8.2 mg/kg bw/day (Consumer)
Dermal	DNEL(long/local)	1.5 mg/cm2 (Consumer)
		1.5 mg/cm2 (Workers (Industrial/Professional))
	DNEL(long/systemic)	8.2 mg/kg bw/day (Consumer)
		13.7 mg/kg bw/day (Workers (Industrial/Professional))
	DNEL(short/local)	1.5 mg/cm2 (Workers (Industrial/Professional))
Inhalative	DNEL(long/local)	104 mg/m3 (Consumer)
		208 mg/m3 (Workers (Industrial/Professional))
	DNEL(long/systemic)	74.3 mg/m3 (Consumer)
		348.4 mg/m3 (Workers (Industrial/Professional))

	416 mg/m3 (Workers (Industrial/Professional))	
· PNECs		
reaction mass of ethylbenzene and xylene		
PNEC(aqua)	0.327 mg/L (freshwater)	
	0.327 mg/L (marine water)	

208 mg/m3 (Consumer)

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PNEC(STP)	EC(STP) 6.58 mg/L (sewage treatment plant)	
PNEC(sediment)	ent) 12.46 mg/kg sedi. dw (freshwater)	
	12.46 mg/kg sedi. dw (marine water)	
PNEC(soil)	2.31 mg/kg soil dw (soil)	
CAS: 80-62-6 me	CAS: 80-62-6 methyl methacrylate	
PNEC(aqua)	0.94 mg/L (freshwater)	
	0.094 mg/L (marine water)	
PNEC(STP)	10 mg/L (sewage treatment plant)	
PNEC(sediment)	diment) 10.2 mg/kg sedi. dw (freshwater)	
	1.02 mg/kg sedi. dw (marine water)	
PNEC(soil)	1.48 mg/kg soil dw (soil)	

· 8.2 Exposure controls

- Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

The usual precautionary measures are to be adhered to when handling chemicals.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection



Protective gloves

Only use chemical-protective gloves with CE-labelling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection



Tightly sealed goggles

- · Body protection: Protective work clothing
- · Environmental exposure controls No further relevant information available.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

Physical state
Form:
Colour:
Odour:
Aromatic

Odour threshold: Not determined.Melting point/freezing point: Not determined.

· Boiling point or initial boiling point and boiling

range 137 °C • Flammability Flammable.

· Lower and upper explosion limit

Lower: 1.1 Vol %
 Upper: 8 Vol %
 Flash point: ~ 23 °C
 Auto-ignition temperature: > 250 °C
 Decomposition temperature: Not determined

Decomposition temperature: Not determined.pH Not determined.

· Viscosity:

Kinematic viscosity
 Dynamic at 20 °C:
 Not determined.
 250 - 450 mPas

Solubility

• water: Not miscible or difficult to mix.

· Partition coefficient n-octanol/water (log value)

reaction mass of ethylbenzene and xylene 3,16 log Pow (20°C, Read-across)

80-62-6 methyl methacrylate 1,38 log Pow (20°C, OECD Guideline 107)

97-88-1 n-butyl methacrylate 2,99 logPow (20°C, OECD Guideline 107)

· Vapour pressure at 20 °C: < 8 hPa

Density and/or relative density

Density at 20 °C: 0.95 g/cm³
 Relative density Not determined.
 Vapour density Not determined.
 Relative gas density Not determined.
 Particle characteristics Not applicable.

· 9.2 Other information

• Explosive properties: Product is not explosive. However, formation of

explosive air/vapour mixtures are possible.

Oxidising properties No

• Evaporation rate Not determined.

Information with regard to physical hazard

classes

· Flammable liquids Flammable liquid and vapour.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability No decomposition if used and stored according to specifications.
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.

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· 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity

Harmful in contact with skin.

· LD/LC50 values relevant for classification:			
reaction r	reaction mass of ethylbenzene and xylene		
Oral	LD50	3523 mg/kg (Rat) (EU Method B.1)	
Inhalative	LC50 (4h)	6700 ppmV (Rat) (EU Method B.2)	
CAS: 80-6	CAS: 80-62-6 methyl methacrylate		
Oral	LD50	> 5000 mg/kg (Rat)	
Dermal	LD50	> 5000 mg/kg (Rat)	
Inhalative	LC50 (4h)	29.8 mg/L (Rat)	
CAS: 97-88-1 n-butyl methacrylate			
Dermal	LD50	10181 mg/kg (Rabbit)	

· Skin corrosion/irritation

Causes skin irritation.

· Serious eve damage/irritation

Causes serious eye irritation.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity 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.

· STOT-repeated exposure

May cause damage to the central nervous system, the kidneys, the liver and the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.

- Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:		
reaction mass of ethylbenzene and xylene		
LC50 (96h) (static)	2.6 mg/L (Fish) (OECD Guideline 203, Oncorhynchus mykiss) Read-across	
EC50 (24h) (static)	1 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna) Read-across	
NOEC	0.96 mg/L (Daphnia) (US EPA 600/4-91-003, Ceriodaphnia dubia) 7d, read-across	
	> 1.3 mg/L (Fish) (Read-across, Oncorhynchus mykiss) 56d	
CAS: 80-62-6 methyl methacrylate		
LC50 (96h)	> 79 mg/L (Fish) (OECD Guideline 203, Oncorhynchus mykiss)	
EC50 (48h)	69 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna)	
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EC50 (72h)	> 100 mg/L (Algae) (OECD Guideline 201, Selenastrum capricornutum)		
NOEC (21d) 37 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna)		Guideline 202, Daphnia magna)	
NOEC (dynamic) 9.4 mg/L (Fish) (OECD Guideline 210, Danio rerio) 35d		eline 210, Danio rerio)	
NOEC (72h)	> 100 mg/L (Algae) (OECD Guideline 201, Selenastrum capricornutum)		
CAS: 97-88-1 n-butyl	CAS: 97-88-1 n-butyl methacrylate		
LC50 (96h) (dynamic) 11 mg/L (Fish) (OECD Guideline 203, Pimephales promelas) measured		eline 203, Pimephales promelas)	
EC50 (48h) (static)	5.4 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna) ominal		
EC50 (72h) (static)	31.2 mg/L (Algae) (OECD Guideline 201, Pseudokirchneriella subcapitata)		
NOEC (21d)	1.1 mg/L (Daphnia) (OECD (Guideline 211, Daphnia magna)	
NOEC (28d) 100 mg/L (Bacteria) (OECD		Guideline 301 C)	
12.2 Persistence and degradability			
reaction mass of ethylbenzene and xylene		98% (28d, OECD Guideline 301 F)	
80-62-6 methyl methacrylate		94 % (14 d, OECD Guideline 301 C)	
97-88-1 n-butyl methacrylate		88 % (28d, OECD Guideline 301 C)	
· 12.3 Bioaccumulative potential			
97-88-1 n-butyl methacrylate 70 BCF (calculation)			

· 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

reaction mass of ethylbenzene and xylene 2,73 log Koc (Read-across)

0,961 log Koc (20°C, QSAR)

· 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

· 12.7 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · **Recommendation:** Must be specially treated adhering to official regulations.
- · Uncleaned packaging

· 12.4 Mobility in soil

80-62-6 methyl methacrylate

· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information	
· 14.1 UN number or ID number · ADR/RID/ADN, IMDG, IATA	UN1307
· 14.2 UN proper shipping name	
· ADR/RID/ADN	1307 XYLENES
· IMDG, IATA	XYLENES

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according to 1907/2006/EC, Article 31

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· 14.3 Transport hazard class(es)

· ADR/RID/ADN, IMDG, IATA



· Class 3 Flammable liquids.

· Label 3

· 14.4 Packing group

· ADR/RID/ADN, IMDG, IATA

· 14.5 Environmental hazards: Not applicable.

• 14.6 Special precautions for user Warning: Flammable liquids.

Hazard identification number (Kemler code): 30EMS Number: F-E,S-D

· Stowage Category A

· 14.7 Maritime transport in bulk according to IMO

instruments Not applicable.

· Transport/Additional information:

· ADR/RID/ADN

· Tunnel restriction code D/E

· UN "Model Regulation": UN 1307 XYLENES, 3, III

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50000 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

 Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

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· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· Date of previous version: 14.04.2023

· Version number of previous version: 2.00

· Abbreviations and acronyms:

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

UN: United Nations (also UNO: United Nations Organization)

NOEC: No Observed Effect Concentration

OECD: Organisation for Economic Co-operation and Development

ASTM: American Society for Testing and Materials

WAF: Water Accommodated Fraction

ADR: Accord relatif au transport international 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 Harmonised 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 (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids - Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

Skin Sens. 1: Skin sensitisation - Category 1

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard - Category 1

* Data compared to the previous version altered.