

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 05.04.2017

Version No: 1

Revision: 05.04.2017

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

- **1.1 Product identifier**
- **Trade name:** Histofluid
- **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.  
Acute Tox. 4 H332 Harmful if inhaled.  
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 and the liver through prolonged or repeated exposure.

- **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**



GHS02 GHS07 GHS08

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
xylene
- **Hazard statements**  
H226 Flammable liquid and vapour.  
H312+H332 Harmful in contact with skin or if inhaled.  
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 and the liver through prolonged or repeated exposure.

**· 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.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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 n-butyl methacrylate. May produce an allergic reaction.

**· 2.3 Other hazards****· Results of PBT and vPvB assessment**

**· PBT:** Not determined.

**· vPvB:** Not determined.

### SECTION 3: Composition/information on ingredients

**· 3.2 Chemical characterisation: Mixtures****· Dangerous components:**

CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9	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: 97-88-1 EINECS: 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 - < 1.0%

**· 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:**

In case of unconsciousness place patient stably in side position for transportation.  
 Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

**· After skin contact:**

Immediately rinse with water.  
 If skin irritation continues, consult a doctor.

**· 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.

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- **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:**  
CO<sub>2</sub>, 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 equipment. Keep unprotected persons away.  
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).  
Do not flush with water or aqueous cleansing agents  
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.
- **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:**  
Keep container tightly sealed.

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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**

- **Ingredients with limit values that require monitoring at the workplace:**

**CAS: 1330-20-7 xylene**

WEL (Great Britain)	Short-term value: 441 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
IOELV (EU)	Short-term value: 442 mg/m <sup>3</sup> , 100 ppm Long-term value: 221 mg/m <sup>3</sup> , 50 ppm Skin

- **Ingredients with biological limit values:**

**CAS: 1330-20-7 xylene**

BMGV (Great Britain)	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
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- **8.2 Exposure controls**

- **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.

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.

- **Protection of hands:**



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.

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· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Fluid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Aromatic
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· <b>Melting point/freezing point:</b>	Not determined.
· <b>Initial boiling point and boiling range:</b>	137 °C

· **Flash point:** ~23 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** > 250 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

· <b>Lower:</b>	1.1 Vol %
· <b>Upper:</b>	8.0 Vol %

· **Oxidising properties** No

· **Vapour pressure at 20 °C:** < 8 hPa

· **Density at 20 °C:** 0.95 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:** Insoluble.

· **Partition coefficient: n-octanol/water:** Not determined.

· **Viscosity:**

· <b>Dynamic at 20 °C:</b>	250-450 mPas
· <b>Kinematic:</b>	Not determined.

· **9.2 Other information** No further relevant information available.

**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.

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- **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.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

#### · 11.1 Information on toxicological effects

##### · Acute toxicity

Harmful in contact with skin or if inhaled.

##### · LD/LC50 values relevant for classification:

###### CAS: 1330-20-7 xylene

Oral	LD50	3523 mg/kg (Rat) (EU Method B.1)
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###### CAS: 97-88-1 n-butyl methacrylate

Dermal	LD50	10181 mg/kg (Rabbit)
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- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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 and the liver through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### · 12.1 Toxicity

##### · Aquatic toxicity:

###### CAS: 1330-20-7 xylene

LC50 (96h)	2.6 mg/L (Fish) (OECD Guideline 203, Oncorhynchus mykiss) Read-across
EC50 (3h)	>157 mg/L (Bacteria) (OECD Guideline 209, activated sludge) Read-across
EC50 (static)	2.2 mg/L (Algae) (OECD Guideline 201, Pseudokirchneriella subcapitata) 73h; Read-across
NOEC	1.17 mg/L (Daphnia) (US EPA 600/4-91-003, Ceriodaphnia dubia) 7d; Read-across > 1.3 mg/L (Fish) (Oncorhynchus mykiss) 56d
IC50 (static)	1 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna) Read-across

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**CAS: 97-88-1 n-butyl methacrylate**


LC50 (96h) (dynamic)	11 mg/L (Fish) (OECD Guideline 203, Pimephales promelas) measured
EC50 (48h) (static)	25.4 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna) nominal
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** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 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**
- **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

· <b>14.1 UN-Number</b>	
· <b>ADR/RID/ADN, IMDG, IATA</b>	UN1307
· <b>14.2 UN proper shipping name</b>	
· <b>ADR/RID/ADN</b>	1307 XYLENES
· <b>IMDG, IATA</b>	XYLENES
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR/RID/ADN, IMDG, IATA</b>	
	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3
· <b>14.4 Packing group</b>	
· <b>ADR/RID/ADN, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	Not applicable.
· <b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
· <b>Danger code (Kemler):</b>	30
· <b>EMS Number:</b>	F-E,S-D
· <b>Stowage Category</b>	A
· <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.

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· <b>Transport/Additional information:</b>	
· <b>ADR/RID/ADN</b>	
· <b>Tunnel restriction code</b>	D/E
· <b>UN "Model Regulation":</b>	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** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **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**
- 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 the central nervous system, the kidneys and the liver through prolonged or repeated exposure.
- **Abbreviations and acronyms:**
- REACH: Registration, Evaluation 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 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 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- 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

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STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2  
Asp. Tox. 1: Aspiration hazard – Category 1

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