

**Material Safety Data Sheet**  
**According to decree (EC) No. 1907 / 2006**

Revision: 4

Revision Date 22.02.2017 SW

**1. Chemical Product and Company Identification****Product name:**

Enamel Fix

**Application of the product:**

Connection between the dentin and composite

**Manufacturer:**

Willmann &amp; Pein GmbH

**Street:**

Schusterring 35

**Zip-Code / Town:**

D-25355 Barmstedt

**Contact for technical information:**

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**Phone / Fax / E-Mail:**+49 (0) 4123 / 9228 0 / +49 (0) 4123 / 9228 49 / [info@wp-dental.de](mailto:info@wp-dental.de)**Emergency Information:**

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**2. Hazard Identification:****2.1 Classification of the substance or mixture****According to Regulation (EC) No. 1272/2008:**

- |                 |  |
|-----------------|--|
| - Skin irrit. 2 | H315 (Causes skin irritation)              |
| - Eye irrit. 2  | H319 (Causes serious eye irritation)       |
| - Skin sens. 1  | H317 (May cause an allergic skin reaction) |
| - STOT SE 3     | H335 (May cause respiratory irritation)    |

**2.2 Label elements****Labelling according to Regulation 1272/2008 (GHS/CLP)****Warning****H315**

P264

P280

P302+P352

P321

P332+P313

P362+P364

**causes skin irritation**

Wash...thoroughly after handling.

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

IF ON SKIN: Wash with plenty of water/...

Specific treatment (see...on this label)

If skin irritation occurs: get medical advice/attention

Take off contaminated clothing and wash it before reuse.

**H317**

P261

P272

may cause an allergic skin reaction

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

Contaminated work clothing should not be allowed out of the workplace

**Material Safety Data Sheet**  
**According to decree (EC) No. 1907 / 2006**

Revision: 4

Revision Date 22.02.2017 SW

P501 Dispose of contents/container to...

**H319** causes serious eye irritation  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.

**H335** may cause respiratory irritation  
P271 Use only outdoors or in a well-ventilated area.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTER/doctor/.../if you feel unwell.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

### 3. Composition/Information on Ingredients

#### Chemical characterization:

Hazardous Ingredients	Cas-No.	EINECS-No.	Percentage (%)
1,6-Hexandioldimethacrylate	6606-59-3	229-551-7	0-30 %
Aliphatic urethane dimethacrylate			0-30 %
Bisphenol-A-bis (hydroxypropylmethacrylate)	1565-94-2		0-40 %
2-Hydroxyethylmethacrylate	868-77-9	212-782-2	0-6 %

### 4. First-Aid-Measures

#### General Advices:

Take off with product contaminated clothes.

#### After skin contact:

Remove by washing water and soap.

#### After eye contact:

Rinse eyes an efficient time while eyes are open. Contact ophthalmologist if irritation is persisting.

#### After inhalation:

Take person to fresh air.

#### After swallowing:

Contact a doctor.

### 5. Fire-Fighting-Measures

#### Suitable extinguishing agents:

Foam, dry powder, carbon dioxide, waterspray-stream, - Adjust fire-fighting-measures- to ambiance.

#### For safety reasons unsuitable extinguishing media:

Not known

#### Protective equipment for fire-fighters:

Use conventional measures to combat chemical fires, that means use self-contained breathing apparatus (isolating-unit).

### 6. Accidental release measures

#### Personal precautions:

Arrange for fresh air.

#### Environmental protection measures:

**Material Safety Data Sheet**  
**According to decree (EC) No. 1907 / 2006**

Revision: 4

Revision Date 22.02.2017 SW

Do not drain material into canalization.

**Methods for cleaning / absorption:**

Bigger quantities: Pick up material mechanically. (pump down) observe „ex-protection“

Smaller quantities: Pick up with binding material (such as: sand, diatomaceous earth, acid binding agent, universal binding agent, sawdust)

**7. Handling and Storage****Handling:**

The conventional precautions for works with chemicals are to be adhered.

Wear overall while working. Avoid skin contact by using of instruments and minimal-contact-techniques. For fine-manual-works wear protection-gloves made of polyethylene for ex. Ethiparat protection-gloves afford protection for approx. 5-10 minutes (based on experiences of the past time/literature.)

Wash hands before and after work as well as before having a break.

**Advice for safe handling:**

Observe guidance of enclosed instruction for use.

Only for intended application.

**Technical Measures:**

Arrange for adequate ventilation.

**Information about fire- and explosion protection:**

No special measures necessary.

**Storage conditions:**

Storage temperature: Store material at a dry, cool and sunprotected place.

Storage time: 3 years if storage conditions will be kept.

**8. Exposure Controls/Personal Protection****Limit values for the exposition at work station and / or biological limit values****work station limit values (AGW) Germany**

PNCE and DNCL-Values as to be possibly worked out in a preparation safety report do not exist.

**Personal protective equipment:**

Pay attention of protection- and hygienic measures. Protection clothes must be stored separately. The usual precaution measures at handling with chemicals must be attended.

**Breathing protection:**

If bigger quantities (at least 100 or 200 ml) were grouted:

Temporary industrial gas mask, filter A

Breathing protection for smaller quantities (10 ml or less):

Not necessary

**Eye protection:**

Wear protection goggles when working with material

**Hand protection:**

Sensibilisation: Wearing of applicable protection gloves is recommended. (by experience of the past / literature) for example Ethiparat-gloves for 5-10 minutes, application of No-touch-Technique, minimal-contact-techniques is recommended.

**Body protection:**

Wear business usual protection clothes.

**Advices for hygienic****At work station:**

Comply business usual protection- and hygienic measures.

Preventive skin protection. Wash hands and skin after finishing work.

**Other protection measures:** None

**Material Safety Data Sheet**  
**According to decree (EC) No. 1907 / 2006**

Revision: 4

Revision Date 22.02.2017 SW

**9. Physical and chemical Properties****Appearance:**

Form: liquid  
Appearance: viscose liquid  
Colour: colourless (yellowlike)  
Odour/Flavour: acrylates / methacrylates

**Safety relevant data:**

Flash point: not available (approx. > 100 °C)  
Appreciated by the flash point of the ingredients.  
No symbol necessary

Solubility in water: insoluble in water  
Solubility in acetic acid: soluble  
Solubility in isopropanol: partly soluble  
Relative density: not applicable  
PH-Value: not applicable

**10. Stability and Reactivity****Conditions to avoid:**

Beware of heat, solar radiation and light impact to avoid early slow polymerization.

**Substances to avoid:**

Radical former (product polymerises slowly at contact)

**Hazardous decomposition products:**

None, if used according to directions.

**Further information:**

After considerably exceedance of storage time and / or exceedance of storage temperature it is possible that the product starts polymerizing under low heat impact.

**11. Toxicological information**

**At skin:** It can not be excluded that irritations occur during longer or frequent skin contact.

**At eyes:** Under longer impact of the product and irritation of the mucous can be caused.

**Further information:** Longer contact with skin and eyes should be avoid. Aerosol and vapors in high concentration can cause irritation of the mucous / respiratory system. (Nose, fauces, lung)

**Kinetic of the toxic reaction:**

According the new Material Safety Data Sheet according to REACH, specifications about kinetic of the toxic reaction, metabolism of the substance and allocation of the substance in the human body must be mentioned at this place. Data for this is not available.

**Further information:**

By appropriate exposure and conventionally use and to our experiences and information the product causes no hazardous effects.

**Further details:**

The product has to be handled with the usual care when handling chemicals. Methacrylates may cause allergic reactions.

**12. Ecological information**

**Persistence and degradability:** not applicable

**Further information:**

**Material Safety Data Sheet**  
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Revision Date 22.02.2017 SW

Do not allow product to reach ground water, body of waters or sewage system.

**Bioaccumulation potential:**

No data available

**Effect of the determination of the PTB- and vPvB-Report:**

Endocrine disruption potential.

If the material causes hormonal effects or prevents them is unknown to us.

**13. Disposal considerations****Substance / Preparation:**

To dispose of accordingly with notice of the local regulations of authority.

Do not empty into drains.

**Disposal key according to AVV regulation:**

16 03 05 (see disposal code for dental products with methacrylates)

Organic disposal, that contains hazardous substances.

**Package:**

Packages that are not contaminated can be recycled.

**14. Transport informations/rules****Land transport ADR/RID**

No hazardous material in terms of transport rules

**Maritime transport IMDG/GGVSea**

No hazardous material in terms of transport rules

**Air transport ICAO-TI and IATA-DGR**

No hazardous material in terms of transport rules

**15. Regulatory Information****Labelling according to Regulation 1272/2008 (GHS/CLP)**

Warning

**H315****causes skin irritation**

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Specific treatment (see...on this label)

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**16. Other information****Further applicable EG Guidelines:**

Guideline for preparation (1999/45/EC), at last changed by the guideline 2006/8/EC.  
Substance Guideline (67/548/EWG), at last changed by the guideline 2006/121 EC.  
REACH-Guideline (EC) No. 1907/2006

**Manufacturer's suggested application restriction:**

Only for commercial use – no public product

**R-Phrases on which is referred in chapter 2 and 3:**

36/37/38 irritants the eyes, respiratory systems and skin  
43 May cause sensitization by skin contact

**Changes compared to the last version:**

Assimilation according REACH-Regulation (EC) No. 1907/2006  
Revision of the water hazard class

**Department issuing MSDS:**

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**Additional Information:**

Origin: [http:// www.baua.de](http://www.baua.de)  
[http:// www.arbeitssicherheit.de](http://www.arbeitssicherheit.de)

Some of the information presented and conclusions drawn herein are from sources other than direct test-data on the product itself.

The contents and format of this MSDS are in accordance with EEC Commission (EC) No. 1907 / 2006.

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However, the information is provided without any warranty, express or implied, regarding its correctness.

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