

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 10/18/2002

Reviewed on 10/18/2002

1 Identification of substance

- **Product details**
- **Trade name: FOTOFIX**
- **Application of the substance / the preparation** Faceplate-glue
- **Manufacturer/Supplier:**
DREVE-OTOPLASTIK GMBH
Max-Planck-Straße 31
59423 Unna / Germany
Tel.: ++49 2303 / 8807-0
Fax.: ++49 2303 / 82909
- **Information department:**
Department Research & Development
Tel.: ++49 2303 / 8807-14/-17/-569
- **Emergency information:** ++49 2303 / 8807-0

2 Composition/Data on components

- **Chemical characterization**
- **Description:**
UV-curing acrylate/methacrylate formulation
Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

80-62-6	methyl methacrylate	25-50%
	Acrylic resin	25-50%
3524-68-3	pentaerythritol triacrylate	10-25%
	Photoinitiatorblend	2.5-10%
13048-33-4	hexamethylene diacrylate	≤ 2.5%
	Tripropylenglycoldiacrylat	≤ 2.5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Hazard description:**



Xi Irritant
F Highly flammable

- **Information pertaining to particular dangers for man and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 11 Highly flammable.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 43 May cause sensitization by skin contact.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**



Health = 3
Fire = 3
Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

HEALTH	*3	Health = *3
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Take affected persons into fresh air and keep quiet.
In case of unconsciousness place patient stably in side position for transportation.
Seek medical treatment.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Call a doctor immediately.

5 Fire fighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
Water
Water with full jet
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Avoid contact with skin and eyes.
Ensure adequate ventilation
Keep away from ignition sources
- **Measures for environmental protection:**
Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Pick up mechanically.
Dispose of the collected material according to regulations.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Avoid contact with skin and eyes.
Keep receptacles tightly sealed.
Keep away from heat and direct sunlight.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.

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Protect against electrostatic charges.
The product forms flammable fumes when heated.

- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Class according to regulation on flammable liquids:** A I

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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

80-62-6 methyl methacrylate

PEL	410 mg/m ³ , 100 ppm
REL	410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm Long-term value: 205 mg/m ³ , 50 ppm
SEN	

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

9 Physical and chemical properties

· **General Information**

Form:	Fluid
Color:	Colorless
Odor:	Characteristic

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100°C (> 212°F)

· **Flash point:** 10°C (50°F)· **Ignition temperature:** > 200°C (> 392°F)· **Auto igniting:** Product is not selfigniting.· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.· **Explosion limits:**

Lower:	2.1 Vol %
Upper:	12.5 Vol %

· **Vapor pressure at 20°C (68°F):** 47 hPa· **Density:** Not determined.· **Solubility in / Miscibility with**

Water:	Not miscible or difficult to mix.
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· **Viscosity:**

Dynamic at 23°C (73°F):	20 mPas
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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Protect from heat and direct sunlight.
- **Dangerous products of decomposition:** No decomposition if used according to specifications.

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

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Irritant.

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12 Ecological information

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

13 Disposal considerations

- **Product:**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal must be made according to official regulations.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**



- **Hazard class:**

3

- **Identification number:**

UN1247

- **Packing group:**

II

- **Proper shipping name (technical name):** METHYL METHACRYLATE MONOMER, STABILIZED

- **Label**

3

- **Land transport ADR/RID (cross-border):**



- **ADR/RID class:**

3 Flammable liquids

- **Danger code (Kemler):**

33

- **UN-Number:**

1247

- **Packaging group:**

II

- **Maritime transport IMDG:**



- **IMDG Class:**

3

- **UN Number:**

1247

- **Label**

3

- **Packaging group:**

II

- **EMS Number:**

3-05

- **Marine pollutant:**

No

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· Propper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
· Air transport ICAO-TI and IATA-DGR:	
	
· ICAO/IATA Class:	3
· UN/ID Number:	1247
· Label	3
· Packaging group:	II
· Propper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED

15 Regulations

- **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**



Xi Irritant
F Highly flammable

- **Hazard-determining components of labelling:**

methyl methacrylate
pentaerythritol triacrylate
hexamethylene diacrylate

- **Risk phrases:**

11 Highly flammable.
36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitization by skin contact.

- **Safety phrases:**

9 Keep container in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
24 Avoid contact with skin.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
37/39 Wear suitable gloves and eye/face protection.
60 This material and its container must be disposed of as hazardous waste.

- **National regulations:**

- **Classification according to VbF: A I**

- **Technical instructions (air):**

Class	Share in %
II	25-50
III	≤ 2,5

- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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.

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- **Department issuing MSDS:** Department Research & Development
- **Contact:** Dr. Thomas Veit, Dr. Reiner Altmann, Dr. Georgia Meißner
- *** Data compared to the previous version altered.**

USA