



Safety data sheet

1. Substance/preparation and company identification

Trade name:

BKF Spachtel AL

Application of the substance/ the preparation:

Putty

BEIL

Kunststoffproduktions- und Handelsgesellschaft mbH

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2. Hazard identification

2.1. Classification of the substance or mixture

This mixture is classified as hazardous according to GHS

GHS-Classification As per UN-GHS

Flammable liquids	Hazard category 2	H225
Caustic burning / irritation of skin	Hazard category 2 A	H315
Skin Sensitisation	Hazard category 1 B	H317
Specific Target Organ Toxicity - Single exposure	Hazard category 3	H335
Hazardous to the aquatic environment – AcuteHazard	Hazard category 3	H402

2.2. Label elements As per UN-GHS

GHS-Labeling

Signal word **Danger**

GHS pictogram



hazard statement

Highly flammable liquid and vapour. (H225)

Causes skin irritation. (H315)

May cause an allergic skin reaction. (H317)

May cause respiratory irritation. (H335)

Harmful to aquatic life. (H402)

Safety notice (general)

Wear protective gloves/protective clothing/eye protection.
(P280)

Precautionary Statement (Prevention)

Avoid release to the environment. (P273)

Precautionary Statement (Response)

Call a POISON CENTER/doctor if you feel unwell. (P312)



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

IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304 + P340)

Precautionary Statement (Disposal)

Dispose of contents/container in accordance with local regulation. (P501)

Hazardous component(s) for Labelling

contains: methyl methacrylate
triethyleneglycol dimethacrylate

2.3. Other hazards

electrostatic charge

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

3. Composition/information on ingredients

3.1. Substances

3.2. Mixtures

Hazardous Ingredients As per UN-GHS

Component	CAS-No.	Content	Hazard class / Hazard category / Hazard statement
methyl methacrylate	80-62-6	40 - 70 %	Flam. Liq. 2 ; H225 Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 STOT SE 3 (inhalation); H335 Aquatic Acute 3 ; H402
triethyleneglycol dimethacrylate	109-16-0	3 - 7 %	Skin Sens. 1B ; H317 Aquatic Acute 3 ; H402
N,N-bis-(2-hydroxypropyl)- ptoluidine	38668-48- 3	0.1 - 1 %	Acute Tox. 2 (oral); H300 Eye Irrit. 2A ; H319 Aquatic Chronic 3 ; H412

4. First-aid measures

4.1. Description of first aid measures

General advice

Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.

Inhalation

Move subject to fresh air and keep him calm. See a physician.

Skin contact

Wash off immediately with soap and water. If skin irritation occurs consult a physician.

Eye contact

Keeping the eyelids apart flush thoroughly with water immediately. If irritation persists, contact a physician.

Ingestion

Do not induce vomiting. Consult a physician immediately.

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

Skin Sensitisation, Skin irritation, Excessive or prolonged exposure can cause the following:

Headache, confusion

4.3. Indication of any immediate medical attention and special treatment needed

No

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media foam, dry chemical, carbon dioxide

Extinguishing media which must not

be used for safety reasons

water



5.2. Special hazards arising from the substance or mixture

May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Assure sufficient ventilation. Use personal protective clothing. Keep away sources of ignition. Use breathing apparatus if exposed to vapours/dust/mist/aerosol.

6.2. Environmental precautions

Prevent product from getting into drains/surface water/groundwater.

6.3. Methods and material for containment and cleaning up

Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment! Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust). Dispose of in accordance with regulations.

6.4. Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1. Precautions for safe handling

Safe handling advice Keep container tightly closed. Ensure there is good room ventilation.

Advice on protection against fire and explosion

Keep away from sources of ignition --- No smoking. Take precautionary measures against static discharges. In the event of fire, cool the endangered containers with water. Vapours are heavier than air and can form an explosive mixture with air. Use only explosion-proof equipment.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation. With large storage containers make sure the oxygen (air) supply is sufficient to ensure stability. Protect from the action of light. Keep only in the original container at a temperature not exceeding 30 °C.

7.3. Specific end use(s)

no

8. Exposure controls and personal protection

8.1. Control parameters

see section 8.2.

8.2. Exposure controls

For monitoring procedures refer for instance to "Empfohlene Analysenverfahren für Arbeitsplatzmessungen",

Schriftenreihe der Bundesanstalt für Arbeitsschutz and "NIOSH Manual of Analytical Methods", National Institute for Occupational Safety and Health

Protective measures

Do not breathe vapours. Avoid contact with eyes and skin.

Hygiene measures

Take off all contaminated clothing immediately. Store work clothing separately.

Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.

Respiratory protection

Breathing apparatus in case of high concentrations

Hand protection

butyl rubber gloves (0.7 mm), Break through time ca. 60 min (EN 374)
In practice, due to variable exposure conditions, this information can only be an aid to orientation for the selection of a suitable chemical protection glove. In particular, this information does not substitute suitability tests by the end user.



Splash	protection neoprene gloves
General information	Gloves should be replaced regularly, especially after extended contact with the product. For each work-place a suitable glove type has to be selected.
Eye protection	tightly fitting goggles
Skin and body protection	On handling of larger quantities: face mask, chemical-resistant boots and apron

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	liquid
Colour	bluish
Odour	ester-like
Freezing Temperature	not available
Boiling Temperature	ca. 100 °C (1,013 hPa)
Flash point	10 °C (DIN 51755) (methyl methacrylate)
Ignition temperature	430 °C (DIN 51794) (methyl methacrylate)
Lower explosion limit	2.1 % (V) (methyl methacrylate)
Upper explosion limit	12.5 % (V) (methyl methacrylate)
Vapour pressure	ca. 40 hPa (20 °C)
Density	ca. 1 g/cm ³ (20 °C)
Relative vapour density (related to air)	> 1 (20 °C)
Solubility in water	ca. 16 g/l (20 °C)
Solubility (qualitative)	soluble in ethyl acetate
pH	not applicable
Viscosity (dynamic)	600 - 1,100 mPa·s (23 °C)

9.2. Other information

none

10. Stability and reactivity

10.1. Reactivity

see section 10.2.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

10.4. Conditions to avoid

Heat and ignition sources, aging, contamination, oxygen free atmosphere.

10.5. Incompatible materials

Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.

10.6. Hazardous decomposition products

None when used as directed.

11. Toxicological information

11.1. Information on toxicological effects

Acute Oral Toxicity	LD50 rat, OECD 401, Related to substance: methyl methacrylate > 5,000 mg/kg
	LD50 rat, Related to substance: N,N-bis-(2-hydroxypropyl)-ptoluidine 25 – 200 mg/kg
	Acute Inhalational Toxicity LD50 rat, Related to substance: methyl methacrylate, Low toxicity by inhalation 29.8 mg/l



	Acute Dermal Toxicity LD50 rabbit, Related to substance: methyl methacrylate, Practically non-toxic in contact with skin	> 5,000 mg/kg
Caustic burning / irritation of skin	Contact with skin may cause irritations.	
Serious eye damage/eye irritation	Contact with the eyes may cause irritation.	
Respiratory/skin sensitization	In sensitization tests on guinea pigs with and without adjuvant, both positive and negative results were found. In humans various types of allergic reactions have been observed (symptoms: headache, eye irritations, skin affections). Related to substance: methyl methacrylate mouse, LLNA (OECD 429), (own study)	sensitizing
Mutagenicity assessment	Related to substance: triethyleneglycol dimethacrylate Allergic reactions on humans were recorded. Related to substance: triethyleneglycol dimethacrylate Positive as well as negative results in <i>in vitro</i> mutagenicity/genotoxicity tests. No experimental indication of genotoxicity <i>in vivo</i> available. In summary not mutagenic according to internationally accepted criteria.	
Carcinogenicity	Related to substance: methyl methacrylate Non-carcinogenic in inhalation and feeding studies carried out on rats, mice and dogs. Related to substance: methyl methacrylate Reprotoxicity / teratogenicity No indications of toxic effects were observed in reproduction studies in animals.	
Toxicity on Repeated Administration	Related to substance: methyl methacrylate rat, inhalation, 2 Years Findings: Damage to mucous membranes in the nose at 400 ppm Related to substance: methyl methacrylate rat, in drinking water, 2 Years Findings: no toxic effects	
General information	Related to substance: methyl methacrylate There are no toxicological data available for the product as such. Avoid contact with the skin and eyes and inhalation of the product vapours.	

12. Ecological information

12.1. Toxicity

Aquaticity, fish	LC50 <i>Oncorhynchus mykiss</i> , rainbow trout, OECD 203, flow through, GLP, 96 h Related to substance: methyl methacrylate	> 79 mg/l
Aquaticity, invertebrates	EC50 <i>Daphnia magna</i> , OECD 202, flow through, 48 h Related to substance: methyl methacrylate NOEC <i>Daphnia magna</i> , OECD 202 part 2, flow through, 21 d Related to substance: methyl methacrylate	69 mg/l 37 mg/l
Aquaticity, algae / aquatic plants	EC3 <i>Scenedesmus quadricauda</i> , DIN 38412 section 9, 8 d Related to substance: methyl methacrylate Toxicity in microorganisms EC0 <i>Pseudomonas putida</i> Related to substance: methyl methacrylate	37 mg/l 100 mg/l

12.2. Persistence and degradability

Persistence and degradability	Readily biodegradable, according to appropriate OECD test. The substance photodegrades rapidly when exposed to air.
Biodegradability	biodegradable (monomer constituent)

**12.3. Bioaccumulative potential**

Bioaccumulation Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).

12.4. Mobility in soil

Mobility Binding to the solid soil phase, sediment or clarification sludge is not expected.
The substance evaporates gradually into the atmosphere from the surface of the water.
If the substance does get into the environment, it tends to remain in the compartment it was discharged into.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment PBT: no
vPvB: no

12.6. Other adverse effects

General Information Prevent substance from entering soil, natural bodies of water and sewer systems.

13. Disposal considerations**13.1. Waste treatment methods**

Product Waste is hazardous. It must be disposed of in accordance with the regulations after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.

Uncleaned packaging Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging that cannot be cleaned should be disposed of professionally. Uncleaned packaging may be taken for recycling.

14. Transport information**14.1. UN number**

see section 14.2.

14.2. UN proper shipping name**Transport on land ADR/GGVSEB**

UN 1866 RESIN SOLUTION, 3, II, (D/E)

Hazard no. 33

Transport on land RID/GGVSEB

UN 1866 RESIN SOLUTION, 3, II

Hazard no. 33

Inland waterway transport ADN/GGVSEB (Germany)

UN 1866 RESIN SOLUTION, 3, II

Shipment by sea IMDG/GGVSee

UN number 1866

Class 3

EmS F-E, S-E

Marine pollutant No

Packaging group II

Proper Shipping Name RESIN SOLUTION

Air transport ICAO/IATA

UN number 1866

Class 3

Packaging group II

Proper Shipping Name RESIN SOLUTION

Remarks

ADR Special provision 640D

RID Special provision 640D

ADNR Special provision 640D

**14.3. Transport hazard class(es)**

see section 14.2.

14.4. Packing group

see section 14.2.

14.5. Environmental hazards

if not mentioned in Point 14.2 then it does not apply

14.6. Special precautions for user

see section 14.2.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

for transportapproval see regulatory information

15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Classification as per Directive 67/548/EC or Directive 1999/45/EC**

Labelling in accordance with

directive 1999/45/EC

requires labelling

Hazardous component(s) for

Labelling

triethyleneglycol dimethacrylate

contains methyl methacrylate

hazard symbol(s)

F Highly flammable

Xi Irritant

R-phrases(s)

11 Highly flammable.

37/38 Irritating to respiratory system and skin.

43 May cause sensitisation by skin contact.

National legislation

Occupational restrictions

Note for juveniles. Note for pregnant woman and nursing mothers (EC Directive 92/85/EEC).

HMIS-Ratings

Health

2

Flammability

3

Physical Hazard

2

NFPA-Ratings

2

3

2

HMIS Hazard Ratings

4 = severe

3 = serious

2 = moderate

1 = slight

0 = minimal

N = no rating for powders

* = chronic health hazard

NFPA Hazard Ratings

4 = extreme

3 = high

2 = moderate

1 = slight

0 = insignificant

N = no rating for powders

Status of Registration

REACH (EU) preregistered, registered or exempted

TSCA (USA) listed or exempted

DSL (CDN) listed or exempted

AICS (AUS) listed or exempted

METI (J) listed or exempted

ECL (KOR) listed or exempted

PICCS (RP) listed or exempted

IECSC (CN) listed or exempted

HSNO (NZ) listed or exempted

16. Other information

Other information

The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.



Relevant H phrases from chapter 3

methyl methacrylate

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H402 Harmful to aquatic life.

triethyleneglycol dimethacrylate

H317 May cause an allergic skin reaction.

H402 Harmful to aquatic life.

N,N-bis-(2-hydroxypropyl)-p-toluidine

H300 Fatal if swallowed.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

References

relevant manuals and publications

own examinations

own toxicological and ecotoxicological studies

toxicological and ecotoxicological studies of other manufacturers

SIAR

OECD-SIDS

RTK public files

The information contained here in is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.