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

1.1. Product identifier

VariKEM 200 (liquid)

UFI: 0PYT-8YMM-0V5U-U91F

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Resin for metallographic testing.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Schmitz-Metallographie GmbH
Street: Kaiserstraße 100
Place: D-52134 Herzogenrath
Telephone: 02407 / 568296-0 Telefax: 02407 / 568296-9
E-mail: info@schmitz-metallographie.de
Contact person: Herr Füllmann
E-mail: info@schmitz-metallographie.de
Internet: www.schmitz-metallographie.de

1.4. Emergency telephone number:

02407 / 568296-0 (Mo-Fr 9:00 - 16:00)

Further Information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 2; H225
Skin Irrit. 2; H315
Skin Sens. 1; H317
STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate
2,2'-ethylenedioxydiethyldimethacrylate
2,2'-[(4-methylphenyl)imino]bisethanol

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

H335	May cause respiratory irritation.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of Water and soap.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to local/regional/national/international regulations.

2.3. Other hazards

In use, may form flammable/explosive vapour-air mixture.
The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
109-16-0	2,2'-ethylenedioxydiethyldimethacrylate			25 - 50 %
	203-652-6		01-2119969287-21	
	Skin Sens. 1B; H317			
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate			25 - 50 %
	201-297-1	607-035-00-6	01-2119452498-28	
	Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335			
3077-12-1	2,2'-[(4-methylphenyl)imino]bisethanol			0,1 -<1 %
	221-359-1		01-2120791684-40	
	Acute Tox. 4, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H302 H318 H317 H412			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
109-16-0	203-652-6	2,2'-ethylenedioxydiethyldimethacrylate	25 - 50 %
	dermal: LD50 = > 2000 mg/kg		
80-62-6	201-297-1	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	25 - 50 %
	inhalation: LC50 = 29,8 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg		
3077-12-1	221-359-1	2,2'-[(4-methylphenyl)imino]bisethanol	0,1 -<1 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 959 mg/kg		

Further Information

Product does not contain listed SVHC substances > 0.1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Take off immediately all contaminated clothing.
First aider: Pay attention to self-protection!

After inhalation

Remove person to fresh air and keep comfortable for breathing. In case of respiratory tract irritation, consult a physician.

After contact with skin

Take off immediately all contaminated clothing. Wash with plenty of water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. In all cases of doubt, or when symptoms persist, seek medical advice.

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

See sections 2 and 11

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO_2). Dry extinguishing powder. Alcohol resistant foam.
In case of major fire and large quantities: Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide (CO). Carbon dioxide (CO_2).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes. Reignition possible over considerable distance.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes.

For non-emergency personnel

Remove persons to safety. Remove all sources of ignition. Ventilate affected area.
Wear personal protection equipment. (See section 8.)

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Danger of explosion! Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area.
Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation as well as local exhaustion at critical locations.
Do not breathe gas/vapour/aerosol.Avoid contact with skin, eyes and clothes.
Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges.
Flammable vapours can accumulate in head space of closed systems. In use, may form flammable/explosive vapour-air mixture. Heating causes rise in pressure with risk of bursting.

Advice on general occupational hygiene

The usual precautions for handling chemicals should be considered.
Keep away from food, drink and animal feedingstuffs.
Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work. Protect skin by using skin protective cream. Take off contaminated clothing and wash it before reuse.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Protect against direct sunlight.
Ensure adequate ventilation of the storage area.
Make sure spills can be contained (e.g. sump pallets or kerbed areas).

Hints on joint storage

Do not store together with: Gas. Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating substances and mixtures. Substances and mixtures which, in contact with water, emit flammable gases. Oxidizing liquids. Oxidizing solids. ammonium nitrate. Self-reactive substances and mixtures. Organic peroxides. Non-combustible toxic substances. Radioactive substances. Infectious substances.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.
Protect against: UV-radiation/sunlight. heat. Humidity frost.
storage temperature: 15 - 25°C

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
80-62-6	Methyl methacrylate	50	-		TWA (8 h)	
		100	-		STEL (15 min)	

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
109-16-0	2,2'-ethylenedioxydiethyldimethacrylate			
Worker DNEL, long-term		inhalation	systemic	48,5 mg/m³
Worker DNEL, long-term		dermal	systemic	13,9 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	14,5 mg/m³
Consumer DNEL, long-term		dermal	systemic	8,33 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	8,33 mg/kg bw/day
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate			
Worker DNEL, acute		inhalation	local	416 mg/m³
Consumer DNEL, acute		inhalation	local	208 mg/m³
Consumer DNEL, long-term		oral	systemic	8,2 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	348,4 mg/m³
Worker DNEL, long-term		dermal	systemic	13,67 mg/kg bw/day
Worker DNEL, long-term		dermal	local	1,5 mg/cm²
Worker DNEL, acute		dermal	local	1,5 mg/cm²
Worker DNEL, long-term		inhalation	local	208 mg/m³
Consumer DNEL, long-term		inhalation	systemic	74,3 mg/m³
Consumer DNEL, long-term		inhalation	local	104 mg/m³
Consumer DNEL, long-term		dermal	systemic	8,2 mg/kg bw/day
Consumer DNEL, long-term		dermal	local	1,5 mg/cm²
Consumer DNEL, acute		dermal	local	1,5 mg/cm²
3077-12-1	2,2'-[(4-methylphenyl)imino]bisethanol			
Worker DNEL, long-term		inhalation	systemic	3,29 mg/m³
Worker DNEL, long-term		dermal	systemic	0,47 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,58 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,17 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,16 mg/kg bw/day

PNEC values

CAS No	Substance

Environmental compartment		Value
109-16-0	2,2'-ethylenedioxydiethyldimethacrylate	
Freshwater		0,016 mg/l
Freshwater (intermittent releases)		0,016 mg/l
Marine water		0,002 mg/l
Freshwater sediment		0,185 mg/kg
Marine sediment		0,018 mg/kg
Micro-organisms in sewage treatment plants (STP)		1,7 mg/l
Soil		0,027 mg/kg
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	
Freshwater		0,94 mg/l
Freshwater (intermittent releases)		0,94 mg/l
Marine water		0,094 mg/l
Freshwater sediment		10,2 mg/kg
Marine sediment		0,102 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		1,48 mg/kg
3077-12-1	2,2'-[(4-methylphenyl)imino]bisethanol	
Freshwater		0,026 mg/l
Freshwater (intermittent releases)		0,26 mg/l
Marine water		0,003 mg/l
Freshwater sediment		0,121 mg/kg
Marine sediment		0,012 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,009 mg/kg

8.2. Exposure controls



Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Recommended eye protection brand: Tightly sealed safety glasses. (EN ISO 16321-1:2022)

Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.
Suitable material: Butyl rubber.
Thickness of glove material: 0,5 mm
Breakthrough time >= 480 min. Penetration time (maximum wearing period): ~ 120 min. (estimated)
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Wear fire/flame resistant/retardant clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection necessary at:
Generation/formation of aerosols
Exceeding exposure limit values
Insufficient ventilation
Suitable respiratory protective equipment: Combination filtering device (EN 14387) type: A/P1-3
Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	characteristic
Odour threshold:	not determined

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100,3 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	10 °C
Auto-ignition temperature:	255 °C
Decomposition temperature:	not relevant
pH-Value:	not determined
Viscosity / kinematic:	not determined
Water solubility:	not determined

Solubility in other solvents

not determined

Dissolution rate:	not relevant
Partition coefficient n-octanol/water:	SECTION 12: Ecological information
Dispersion stability:	not relevant
Vapour pressure:	37 hPa
Density:	1,01 g/cm³
Bulk density:	not relevant
Relative vapour density:	not determined
Particle characteristics:	not relevant

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

In use, may form flammable/explosive vapour-air mixture.

Self-ignition temperature

Gas: not determined

Oxidizing properties

none.

Other safety characteristics

Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Sublimation point:	not relevant
Softening point:	not relevant
Pour point:	not relevant
Viscosity / dynamic:	not determined
Flow time:	not determined

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stabilization required by: stabiliser and Oxygen.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Hazardous polymerisation: Protect against direct sunlight.
Can polymerise exothermically in the absence of stabilisers, particularly in acid conditions or if shelf life exceeded.
Do not store at temperatures over: 60°C
Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.
Refer to section 10.5.

10.4. Conditions to avoid

Keep away from heat. Danger of explosion!
In use may form flammable/explosive vapour-air mixture.
Heating causes rise in pressure with risk of bursting.

10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. strong alkalis. Do not mix with peroxid-accelerators or reduction agents. Strong acid

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

No data available.

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
109-16-0	2,2'-ethylenedioxydiethyldimethacrylate				
	dermal	LD50 > 2000 mg/kg	Mouse	ECHA Dossier	Subacute study according to EPA Dermal Bioassay Workshops
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate				
	oral	LD50 > 5000 mg/kg	Rat	ECHA Dossier	WoE, Deichmann (1941)
	dermal	LD50 > 5000 mg/kg	Rabbit	ECHA Dossier	OECD Guideline 402
	inhalation (4 h) vapour	LC50 29,8 mg/l	Rat	ECHA Dossier	Tansy et al. (1980)
3077-12-1	2,2'-[(4-methylphenyl)imino]bisethanol				
	oral	LD50 959 mg/kg	Rat	Study report (1981)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2013)	OECD Guideline 402

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. (2,2'-ethylenedioxydiethyldimethacrylate; methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; 2,2'-[(4-methylphenyl)imino]bisethanol)

Carcinogenic/mutagenic/toxic effects 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.
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS-No.: 80-62-6):
In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative.
Literature information: ECHA Dossier; Carcinogenicity: negative. Method: OECD Guideline 451 (Carcinogenicity Studies, 6h/d); Species: Rat,oral.; Exposure duration: 2 years; Result: NOAEC >= 2000 ppm;
Literature information: ECHA Dossier; Reproductive toxicity: Method: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study); Species: Rat; Result: NOAEL = 400 mg/kg; Literature information: ECHA Dossier; 1. Developmental toxicity/teratogenicity: Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study); Species: Rabbit.
Exposure duration: 28d; Result: NOAEL = 450 mg/kg
2. Developmental toxicity/teratogenicity: Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study); Species: Rat; Result: NOAEC >= 8,3 mg/l ; Literature information: ECHA Dossier

2,2'-ethylenedioxydiethyldimethacrylate
In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay), OECD Guideline 487 "In vitro Mammalian Cell Micronucleus Test"; Result: negative. Method: OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test). Result: heterogeneous; Literature information: ECHA Dossier; Developmental toxicity/teratogenicity/Reproductive toxicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test); Species: Rat; Exposure duration: 35-42 d. Result: NOAEL = 1000 mg/kg(bw)day; Literature information: ECHA Dossier

STOT-single exposure

May cause respiratory irritation. (methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate)

STOT-repeated exposure

Based on available data, the classification criteria are not met.
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS-No.: 80-62-6):
Chronic oral toxicity: Method: -; Species: Rat;Exposure duration: 2 years; Results: NOAEL = 2000 ppm.
Literature information: ECHA Dossier; 1. Chronic inhalation toxicity: Method: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies, 6h/d); Species: Rat; Exposure duration: approx. 2 years; Results: LOAEC = 250 ppm.
2. Chronic inhalation toxicity: Method: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies, 6h/d); Species: Rat; Exposure duration: approx. 2 years; Results: NOAEC = 1,64 m/l; Literature information: ECHA Dossier

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] | [d]	Species	Source	Method
109-16-0	2,2'-ethylenedioxydiethyldimethacrylate					
	Acute fish toxicity	LC50 16,4 mg/l	96 h	Danio rerio	ECHA Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Raphidocelis subcapitata	ECHA Dossier	EU Method C.3
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate					
	Acute fish toxicity	LC50 > 79 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	EPA OTS 797.1400
	Acute algae toxicity	ErC50 > 110 mg/l	72 h	Raphidocelis subcapitata	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 69 mg/l	48 h	Daphnia magna	ECHA Dossier	EPA OTS 797.1300
3077-12-1	2,2'-[(4-methylphenyl)imino]bisethanol					
	Acute fish toxicity	LC50 > 100 mg/l	96 h		REACh Registration Dossier	
	Acute algae toxicity	ErC50 > 100 mg/l	72 h		REACh Registration Dossier	
	Acute crustacea toxicity	EC50 (48) mg/l	48 h		REACh Registration Dossier	
	Acute bacteria toxicity	EC50 > 1000 mg/l ( )	3 h		REACh Registration Dossier	

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
109-16-0	2,2'-ethylenedioxydiethyldimethacrylate			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	85 %	28	ECHA Dossier
	Readily biodegradable (according to OECD criteria).			
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate			
	OECD 301C / ISO 9408 / EWG 92/69 Anhang V, C.4-F	94 %	14	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
109-16-0	2,2'-ethylenedioxydiethyldimethacrylate	2,3
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	ca. 1,38
3077-12-1	2,2'-[(4-methylphenyl)imino]bisethanol	2

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.
Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - used product

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1247
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3

Classification code:	F1
Special Provisions:	386 676
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	339
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1247
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3

Classification code:	F1
Special Provisions:	386 676
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1247
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3

Marine pollutant:	NO

Special Provisions:	386
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1247
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3

Special Provisions:	A209
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	No
Danger releasing substance:	dodecane-1-thiol

14.6. Special precautions for user

See section 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Directive 2010/75/EU on industrial emissions:	not determined
Directive 2004/42/EC on VOC in paints and varnishes:	not determined
Information according to Directive 2012/18/EU (SEVESO III):	E2 Hazardous to the Aquatic Environment
Additional information:	P5c

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): 3, 40

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
2,2'-ethylenedioxydiethyldimethacrylate
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate

SECTION 16: Other information

Changes

Rev. 1,0; Initial release: 20.05.2019
Rev. 2,0; 14.06.2023, Changes in section: 1 - 16.
Rev. 3,0; 23.01.2026, Changes in section: 1,2,3,8,9,14,16.

Abbreviations and acronyms

Flam. Liq. 2: Flammable liquids, hazard category 2
Acute Tox. 4: Acute toxicity, hazard category 4
Skin Irrit. 2: Skin irritation, hazard category 2
Eye Dam. 1: Serious eye damage, hazard category 1
Skin Sens. 1: Skin sensitisation, hazard category 1
Skin Sens. 1B: Skin sensitisation, hazard category 1B
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging of substances and mixtures
DNEL: Derived No Effect Level
d: day(s)
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European LIst of Notified Chemical Substances
ECHA: European Chemicals Agency
EWC: European Waste Catalogue
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
h: hour
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NLP: No-Longer Polymers
N/A: not applicable
OECD: Organisation for Economic Co-operation and Development
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
REACH: Registration, Evaluation, Authorisation of Chemicals
SVHC: substance of very high concern
TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations
VOC: Volatile Organic Compounds
WGK: Water Hazard Class (Germany)

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)