SAFETY DATA SHEET

according to Commission Regulation (EU) 2020/878 as amended

FORM PLAST LIQUID

Creation date	07th November 2023		
Revision date		Version	2.0

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

1.1. Product identifier — FORM PLAST LIQUID

Substance / mixture	mixture
Number	V220L02
UFI	UWK0-90GJ-C00C-CH6D

Other mixture names

UFI: UWK0-90GJ-C00C-CH6D, Form Plast Płyn 12 ml - V220L02

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

Mixture's intended use

Liquid component of acrylic resin for modeling FORM PLAST. For professional use only.

Main intended use

PC-TEC-26	Products for molding, casting, rigid and flexible foams, including resin mixtures (excludes adhesives, construction products, paints and coatings)

The use descriptors

PW	Widespread use by professional workers

Mixture uses advised against

The product should not be used in ways other than those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Supplier

Name or trade name	Everall7 Sp. z o.o.
Address	Augustówka 14, Warszawa , 02-981 Poland
Identification number (CRN)	002028511
VAT Reg No	PL5210124886
Phone	+48 22 858 82 72
E-mail	info@everall7.pl
Web address	everall7.pl

Competent person responsible for the safety data sheet

Name	Everall7 Sp. z o.o.
E-mail	info@everall7.pl

1.4. Emergency telephone number

European emergency number: 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Flam. Liq. 2, H225
Skin Irrit. 2, H315
Skin Sens. 1, H317
Eye Irrit. 2, H319
STOT SE 3, H335

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Highly flammable liquid and vapour.

Most serious adverse effects on human health and the environment

Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation.

2.2. Label elements

Hazard pictogram

Signal word

Danger

Hazardous substances

methyl methacrylate
ethyl methacrylate
ethylene dimethacrylate

Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
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 vapours.
P264	Wash hands and exposed parts of the body thoroughly after handling.
P280	Wear protective gloves.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use powder extinguisher/sand/carbon dioxide to extinguish.

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 607-035-00-6 CAS: 80-62-6 EC: 201-297-1	methyl methacrylate	>80	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	2, 3
Index: 607-071-00-2 CAS: 97-63-2 EC: 202-597-5	ethyl methacrylate	<20	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3, H335	2
Index: 607-114-00-5 CAS: 97-90-5 EC: 202-617-2	ethylene dimethacrylate	<10	Skin Sens. 1, H317 STOT SE 3, H335	2

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 612-056-00-9 CAS: 99-97-8 EC: 202-805-4	N,N-dimethyl-p-toluidine	<2	Acute Tox. 3, H301+H311+H331 STOT RE 2 (**), H373 Aquatic Chronic 3, H412	1

Notes

** another exposure route cannot be ruled out

1 Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

2 Note D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3 of Annex VI to Regulation (EC) No 1272/2008. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier who places such a substance on the market must state on the label the name of the substance followed by the words "non-stabilised".

3 A substance for which exposure limits are set.

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists. Rinse skin with water or shower.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible.

If swallowed

Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems.

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

If inhaled

May cause respiratory irritation.

If on skin

May cause an allergic skin reaction.

If in eyes

Not expected.

If swallowed

Irritation, nausea.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. Highly flammable liquid and vapour. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in flammable or explosive concentrations and concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use non-sparking tools. Use of antistatic clothes and footwear is recommended. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes. No smoking. Wash hands and exposed parts of the body thoroughly after handling. Use only outdoors or in a well-ventilated area. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take action to prevent static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight. Store locked up. Keep container tightly closed. Keep cool.

Content	Packaging type	Material of package
12 ml	bottle	GL

Storage class	3 - Flammable liquids
Storage temperature	min 5 °C, max 25 °C

The specific requirements or rules relating to the substance/mixture

Solvent vapours are heavier than air and accumulate especially near the floor where they may form an explosive mixture with the air.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union **Commission Directive 2009/161/EU**

Substance name (component)	Type	Value
methyl methacrylate (CAS: 80-62-6)	OEL 8 hours	50 ppm
	OEL 15 minutes	100 ppm

DNEL

ethyl methacrylate					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	370.5 mg/m³	Chronic effects systemic	Experimentally	ECHA
Workers	Inhalation	267 mg/m³	Chronic effects local	Experimentally	ECHA
Workers	Dermal	10.8 mg/kg bw/day	Chronic effects systemic	Experimentally	ECHA
Consumers	Inhalation	76 mg/m³	Chronic effects systemic	Experimentally	ECHA
Consumers	Inhalation	189.8 mg/m³	Chronic effects local	Experimentally	ECHA
Consumers	Dermal	6.5 mg/kg bw/day	Chronic effects systemic	Experimentally	ECHA

ethylene dimethacrylate					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	2.45 mg/m³	Chronic effects systemic	Toxicity test	ECHA
Workers	Dermal	1.3 mg/kg bw/day	Chronic effects systemic	Toxicity test	ECHA
Consumers	Inhalation	1.45 mg/m³	Chronic effects systemic	Toxicity test	ECHA
Consumers	Dermal	830 µg/kg bw/24h	Chronic effects systemic	Toxicity test	ECHA
Consumers	Oral	830 µg/kg bw/24h	Chronic effects systemic	Toxicity test	ECHA

methyl methacrylate					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	348.4 mg/m³	Chronic effects systemic	Toxicity test	ECHA
Workers	Inhalation	208 mg/m³	Chronic effects local		ECHA
Workers	Inhalation	416 mg/m³	Acute effects local	Toxicity test	ECHA
Workers	Dermal	13.67 mg/kg bw/day	Chronic effects systemic	Toxicity test	ECHA
Workers	Dermal	1.5 mg/cm²	Chronic effects local	Toxicity test	ECHA
Workers	Dermal	1.5 mg/cm²	Acute effects local	Toxicity test	ECHA
Consumers	Inhalation	74.3 mg/m³	Chronic effects systemic	Toxicity test	ECHA
Consumers	Inhalation	104 mg/m³	Chronic effects local	Toxicity test	ECHA
Consumers	Inhalation	208 mg/m³	Acute effects local	Toxicity test	ECHA
Consumers	Dermal	8.2 mg/kg bw/day	Chronic effects systemic	Toxicity test	ECHA
Consumers	Dermal	1.5 mg/cm²	Acute effects local	Toxicity test	ECHA
Consumers	Oral	8.2 mg/kg bw/day	Chronic effects systemic	Toxicity test	ECHA
Consumers	Dermal	1.5 mg/cm²	Chronic effects local		ECHA

N,N-dimethyl-p-toluidine					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	128 µg/m³	Chronic effects systemic	Toxicity test	ECHA
Workers	Dermal	624 µg/kg bw	Chronic effects systemic	Toxicity test	ECHA
Consumers	Inhalation	22.7 µg/m³	Chronic effects systemic		
Consumers	Dermal	223 µg/kg bw	Chronic effects systemic	Toxicity test	ECHA
Consumers	Oral	20 µg/kg bw	Chronic effects systemic	Toxicity test	ECHA

PNEC

ethyl methacrylate			
Route of exposure	Value	Value determination	Source
Drinking water	1.8 mg/l	Experimentally	ECHA
Water (intermittent release)	1.8 mg/l	Experimentally	ECHA
Marine water	1.8 mg/l	Experimentally	ECHA
Microorganisms in sewage treatment	100 mg/l	Experimentally	ECHA
Freshwater sediment	40 mg/kg of dry substance of sediment	Experimentally	ECHA
Soil (agricultural)	1.47 mg/kg of dry substance of soil	Experimentally	ECHA

ethylene dimethacrylate			
Route of exposure	Value	Value determination	Source
Drinking water	69.3 µg/l	Experimentally	ECHA
Water (intermittent release)	150 µg/l	Experimentally	ECHA

ethylene dimethacrylate			
Route of exposure	Value	Value determination	Source
Marine water	6.93 µg/l	Experimentally	ECHA
Microorganisms in sewage treatment	57 mg/l	Experimentally	ECHA
Freshwater sediment	411 µg/kg of dry substance	Experimentally	ECHA
Sea sediments	41.1 µg/kg of dry substance	Experimentally	ECHA
Soil (agricultural)	41.5 µg/kg of dry substance	Experimentally	ECHA

methyl methacrylate			
Route of exposure	Value	Value determination	Source
Drinking water	940 µg/l	Experimentally	ECHA
Water (intermittent release)	690 µg/l	Experimentally	ECHA
Marine water	94 mg/kg	Experimentally	ECHA
Microorganisms in sewage treatment	10 mg/l	Experimentally	ECHA
Freshwater sediment	10.2 mg/kg of dry substance of sediment	Experimentally	ECHA
Sea sediments	1.02 mg/kg of dry substance of sediment	Experimentally	ECHA
Soil (agricultural)	1.48 mg/kg of dry substance of soil	Experimentally	ECHA

N,N-dimethyl-p-toluidine			
Route of exposure	Value	Value determination	Source
Drinking water	152.59 µg/l	Experimentally	ECHA
Water (intermittent release)	152.59 µg/l	Experimentally	ECHA
Marine water	15.259 µg/l	Experimentally	ECHA
Microorganisms in sewage treatment	4.286 µg/l	Experimentally	ECHA
Freshwater sediment	45.378 mg/kg of dry substance of sediment	Experimentally	ECHA
Sea sediments	45.378 mg/kg of dry substance of sediment	Experimentally	ECHA
Soil (agricultural)	18.677 mg/kg of dry substance of soil	Experimentally	ECHA

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. If exposure limits cannot be observed in this mode, suitable protection of airways must be used. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

Halfmask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of substances are exceeded or in a poorly ventilated environment.

Thermal hazard

Data not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	Typical for methacrylic acid esters
Melting point/freezing point	-48.2 °C
Boiling point or initial boiling point and boiling range	>100 °C
Flammability	inflammable
Lower and upper explosion limit	
bottom	2.1 %
upper	12.5 %
Flash point	10 °C
Auto-ignition temperature	430 °C
Decomposition temperature	>50 °C
pH	data not available
Kinematic viscosity	data not available
Solubility in water	15.9 g/l
Partition coefficient n-octanol/water (log value)	1.38
Vapour pressure	38.7 hPa at 20 °C
Density and/or relative density	
Density	940 g/cm³
Relative vapour density	data not available
Particle characteristics	data not available
Form	liquid

9.2. Other information

not available

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable under normal conditions. The product is stable in normal conditions of use and storage. Liquid is stabilized by hydroquinone (CAS no. 123-31-9). Nevertheless, the occurrence of self-polymerization reaction is possible after the expiry date, if the storage temperature is exceeded significantly or in case of direct and strong influence of UV radiation

10.3. Possibility of hazardous reactions

Uncontrolled polymerization reaction in the presence of factors which initiate occurration of free radicals. The polymerization reaction is exothermic (heat releasing) and in uncontrolled conditions proceed very vigotous.

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

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

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

ethyl methacrylate								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}		13424 mg/kg		Rabbit		Experimentally	ECHA
Inhalation	LC_{50}	OECD 403	55 mg/l	4 hours	Rat (Rattus norvegicus)	F/M	Experimentally	ECHA
Dermal	LD_{50}		>10 ml/kg bw		Rabbit		Literary studies	ECHA

ethylene dimethacrylate								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}		8300 ml/kg bw	14 days	Rat (Wistar)	F/M	Experimentally	ECHA
Dermal	LD_{50}	OECD 402	2000 mg/kg bw	24 hours	Rat (Wistar)	F/M	Experimentally	ECHA

methyl methacrylate								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}		7900 mg/kg		Rat (Rattus norvegicus)		Mortal	ECHA Dossier
Inhalation	LC_{50}		29.8 mg/l	4 hours	Rat (Rattus norvegicus)			ECHA Dossier
Dermal	LD_{50}	OECD 402	>5000 mg/kg	24 hours	Rabbit	M		ECHA Dossier
Oral	NOAEL		7900 mg/kg bw/day		Rat (Rattus norvegicus)		Mortal	ECHA
Inhalation	NOAEL		29.8 mg/l	4 hours	Rat (Rattus norvegicus)			ECHA Dossier
Dermal	NOAEL	OECD 402	5000 mg/kg		Rabbit			ECHA Dossier

N,N-dimethyl-p-toluidine								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}	OECD 401	139 mg/kg bw		Mouse	F/M	Experimentally	ECHA
Oral	LD_{50}	OECD 401	1300-1950 mg/kg bw		Rat (Rattus norvegicus)	F/M	Experimentally	ECHA
Dermal	LD_{50}	OECD 402	>2000 mg/kg bw		Rabbit	F/M	Experimentally	EHA
Inhalation	LC_{50}		1.4 mg/l		Rat (Rattus norvegicus)	F/M	Experimentally	ECHA

Skin corrosion/irritation
Causes skin irritation.

ethyl methacrylate						
Route of exposure	Result	Method	Exposure time	Species	Value determination	Source
Dermal	Irritating		24 hours	Rabbit (New Zealand White)	Experimentally	ECHA

ethylene dimethacrylate						
Route of exposure	Result	Method	Exposure time	Species	Value determination	Source
Dermal	Not irritating	in vivo	24 hours	Rabbit (New Zelend White)	Observation method	ECHA

methyl methacrylate						
Route of exposure	Result	Method	Exposure time	Species	Value determination	Source
Dermal	Irritating		24 hours	Rabbit	Toxicity test	ECHA

Irritation

methyl methacrylate						
Route of exposure	Result	Method	Exposure time	Species	Value determination	Source
Inhalation	Irritating					ECHA

N,N-dimethyl-p-toluidine						
Route of exposure	Result	Method	Exposure time	Species	Value determination	Source
Dermal	Not irritating	OECD 404	4 hours	Rabbit	Experimentally	ECHA
Eye	Not irritating	OECD 405	4 hours	Rabbit	Experimentally	ECHA

Serious eye damage/irritation
Based on available data the classification criteria are not met.

ethyl methacrylate						
Route of exposure	Result	Method	Exposure time	Species	Value determination	Source
Eye	Not irritating		72 hours	Rabbit (New Zealand White)	Experimentally	ECHA

ethylene dimethacrylate						
Route of exposure	Result	Method	Exposure time	Species	Value determination	Source
Eye	Not irritating	in vivo	72 hours	Rabbit (New Zelend White)	Observation method	ECHA

methyl methacrylate						
Route of exposure	Result	Method	Exposure time	Species	Value determination	Source
Eye	Not sensitizing			Rabbit		ECHA

Respiratory or skin sensitisation

May cause an allergic skin reaction.

ethyl methacrylate							
Route of exposure	Result	Method	Exposure time	Species	Sex	Value determination	Source
Dermal	Sensitizing	OECD 429		Mouse	F	Experimentally	ECHA

ethylene dimethacrylate							
Route of exposure	Result	Method	Exposure time	Species	Sex	Value determination	Source
Dermal	Sensitizing	OECD 406		Mouse	F	Literary studies	ECHA

methyl methacrylate							
Route of exposure	Result	Method	Exposure time	Species	Sex	Value determination	Source
Dermal	Sensitizing	OECD 429		Mouse		Observation method	ECHA
Inhalation	Not sensitizing						ECHA

N,N-dimethyl-p-toluidine							
Route of exposure	Result	Method	Exposure time	Species	Sex	Value determination	Source
Dermal	Sensitizing					Literary studies	ECHA

Germ cell mutagenicity

Based on available data the classification criteria are not met.

ethyl methacrylate							
Result	Method	Exposure time	Specific target organ	Species	Sex	Value determination	Source
No effect	in vitro					Experimentally	ECHA

methyl methacrylate							
Result	Method	Exposure time	Specific target organ	Species	Sex	Value determination	Source
Negative	OECD 476		Lung fibroblast	Chinese hamster (Cricetulus barabensis)			ECHA
Negative	OECD 478	5 days (6 hour/day)	Male reproductive organs	Mouse	M		ECHA

N,N-dimethyl-p-toluidine							
Result	Method	Exposure time	Specific target organ	Species	Sex	Value determination	Source
Negative without metabolic activation, Negative with metabolic activation				Bacteria (Salmonella typhimurium)		Literary studies	ECHA
Negative		3 months (7 days/week)	Blood	Mouse	F/M	Literary studies	ECHA

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

methyl methacrylate									
Route of exposure	Parameter	Value	Exposure time	Specific target organ	Result	Species	Sex	Value determination	Source
Oral	NOAEL	90.3 mg/kg bw/day		Kidney	Not carcinogenic	Rat (Rattus norvegicus)	F/M		ECHA
Inhalation	NOAEC	2050 mg/m³			Not carcinogenic	Rat (Rattus norvegicus)	F/M		ECHA

N,N-dimethyl-p-toluidine									
Route of exposure	Parameter	Value	Exposure time	Specific target organ	Result	Species	Sex	Value determination	Source
Oral	LOAEL	6 mg/kg bw/day	2 years (5 days/week)	Liver	Negative	Rat (Rattus norvegicus)	F/M	Experimentally	ECHA

Reproductive toxicity
Based on available data the classification criteria are not met.

N,N-dimethyl-p-toluidine									
Effect	Parameter	Method	Value	Exposure time	Result	Species	Sex	Value determination	Source
Effects on fertility	NOAEL	OECD 422	44.6 mg/kg bw/day	14 weeks (5 days/week	Negative	Rat (Rattus norvegicus)	F/M	Experimentally	ECHA
Developmental toxicity	NOAEL	OECD 422	30 mg/kg bw/day	14 weeks (5 days/week	Negative	Rat (Rattus norvegicus)	F/M	Experimentally	ECHA

Toxicity for specific target organ - single exposure
May cause respiratory irritation.

Toxicity for specific target organ - repeated exposure
Based on available data the classification criteria are not met.

Repeated dose toxicity

ethyl methacrylate									
Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	NOAEL			2400 mg/kg bw/day	90 days (7 days/week)	Rat (Rattus norvegicus)	F/M		
Inhalation	NOAEC	Histopathology, Total effects	OECD 453	104-1640 mg/m³	2 years (6 hour/day, 5 days/week)	Rat (Rattus norvegicus)	F/M	Experimentally	ECHA
Inhalation	LOAEC	Local effects, Histopathology		416 mg/m³	2 years (6 hour/day, 5 days/week)	Rat (Rattus norvegicus)	F/M	Experimentally	ECHA

ethylene dimethacrylate									
Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	NOAEL	Body weight, Organ weight	OECD 422	100 mg/kg bw/day	49 days	Rat (Rattus norvegicus)	F/M	Analogous approach, Literary studies	ECHA
Dermal	NOAEL	Irritating, Local effects, Systemic effects, Histopathology		100 mg/kg bw/day	78 weeks (5 days/week)	Mouse	M	Analogous approach, Literary studies	ECHA
Inhalation	NOAEL	Irritating, Local effects, Systemic effects, Histopathology	OECD 413	100 ppm	90 days (6 hour/day, 5 days/week)	Rat (Rattus norvegicus)	F/M	Analogous approach, Literary studies	ECHA
Inhalation	LOAEC	Irritating, Local effects, Systemic effects, Histopathology	OECD 413	350 ppm	90 days (6 hour/day, 5 days/week)	Rat (Rattus norvegicus)	F/M	Analogous approach, Literary studies	ECHA

methyl methacrylate									
Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral (drinking water)	NOAEL	No effect		124 mg/kg bw/day		Rat (Rattus norvegicus)	F/M		ECHA
Inhalation	NOAEC	No effect	OECD 453	2080 mg/m³		Rat (Rattus norvegicus)	F/M		ECHA

methyl methacrylate									
Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Value determination	Source
Inhalation	NOAEC	Local effects		104 mg/m³		Rat (Rattus norvegicus)			ECHA
Inhalation	LOEC	Local effects		416 mg/m³		Rat (Rattus norvegicus)			ECHA

N,N-dimethyl-p-toluidine									
Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LOAEL			6 mg/kg bw	2 years (5 days/week)	Rat (Rattus norvegicus)	F/M	Literary studies	ECHA
Inhalation (vapor)	LOAEL			67.284 mg/kg bw/day		Rat (Rattus norvegicus)	F/M	Literary studies	ECHA

Aspiration hazard
Based on available data the classification criteria are not met.

11.2. Information on other hazards
The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information
12.1. Toxicity
not available
Acute toxicity

ethyl methacrylate							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}	OECD 203	100 mg/l	96 hours	Fish (Oncorhynchus mykiss)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 202	>66 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 201	110 mg/l	72 hours	Algae (Selenastrum capricornutum)	Fresh water	Experimentally	ECHA
NOEC	OECD 201	110 mg/l	72 hours	Algae (Selenastrum capricornutum)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 209	1000 mg/l	30 minutes	Activated sludge	Fresh water	Experimentally	ECHA

ethylene dimethacrylate							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}	OECD 203	15.95 mg/l	96 hours	Fish (Danio rerio)	Fresh water	Experimentally	ECHA
LC_{0}	OECD 203	6.25 mg/l	96 hours	Fish (Danio rerio)	Fresh water	Experimentally	ECHA
LC_{100}	OECD 203	25 mg/l	96 hours	Fish (Danio rerio)	Fresh water	Experimentally	ECHA
EC_{0}	OECD 202	19.8 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 202	44.9 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{100}	OECD 202	100 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
NOEC	OECD 202	13.2 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 201	10.1-19 mg/l	96 hours	Algae (Selenastrum capricornutum)	Fresh water	Experimentally	ECHA
NOEC	OECD 201	0.804 mg/l	96 hours	Algae (Selenastrum capricornutum)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 201	9.1-17.3 mg/l	72 hours	Algae (Selenastrum capricornutum)	Fresh water	Experimentally	ECHA
EC_{10}	OECD 201	6.93 mg/l	72 hours	Algae (Selenastrum capricornutum)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 209	570 mg/l	30 minutes	Microorganisms (Photobacterium phosphoreum)	Activated sludge	Indicator of growth	ECHA
EC_{10}	OECD 209	100 mg/l	30 minutes	Microorganisms (Photobacterium phosphoreum)	Activated sludge	Indicator of growth	ECHA
EC_{50}	OECD 209	570 mg/l	3 hours	Microorganisms (Photobacterium phosphoreum)	Activated sludge	Indicator of growth	ECHA
EC_{10}	OECD 209	100 mg/l	3 hours	Microorganisms (Photobacterium phosphoreum)	Activated sludge	Indicator of growth	ECHA

methyl methacrylate							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}	EPA OTS 797.1400	>79 mg/l	96 hours	Fish (Oncorhynchus mykiss)	Fresh water	Experimentally	ECHA
NOEC	EPA OTS 797.1400	40 mg/l	96 hours	Fish (Oncorhynchus mykiss)	Fresh water	Experimentally	ECHA

methyl methacrylate							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
NOEC	EPA OTS 797.1300	48 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{50}	EPA OTS 797.1300	69 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 201	>110 mg/kg	72 hours	Algae (Selenastrum capricornutum)	Fresh water	Experimentally	ECHA
NOEC	OECD 201	110 mg/kg	72 hours	Algae (Selenastrum capricornutum)	Fresh water	Experimentally	ECHA
NOEC	OECD 301C	100 mg/l	14 days	Microorganisms (Photobacterium phosphoreum)	Fresh water	Experimentally	ECHA

N,N-dimethyl-p-toluidine							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}	ASTM E 729	52.8 mg/l	96 hours	Fish (Pimephales promelas)	Fresh water	Experimentally	ECHA
LC_{50}		15.27 mg/l	48 hours	Algae (Daphnia magna)	Fresh water	Calculation of value	ECHA
EC_{50}	OECD 207	23.69 mg/l	72 hours	Algae (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{50}		100 mg/l	3 hours	Invertebrates	Fresh water	Experimentally	ECHA

Chronic toxicity

ethyl methacrylate							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
NOEC	OECD 210	9.4 mg/l	96 hours	Fish (Oncorhynchus mykiss)	Fresh water	Analogous approach	ECHA
LOEC	OECD 211	31 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
NOEC	OECD 211	18 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA

ethylene dimethacrylate							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
EC_{50}	OECD 211	5.05 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{10}	OECD 211	7.22 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA

ethylene dimethacrylate							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
NOEC	OECD 211	5.05 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
LOEC	OECD 211	23.1-32.1 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA

methyl methacrylate							
Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LOEC	OECD 210	18.8 mg/l	35 days	Fish (Danio rerio)	Fresh water	Experimentally	ECHA
NOEC	OECD 210	9.4 mg/l	35 days	Fish (Danio rerio)	Fresh water	Experimentally	ECHA
LC_{50}	OECD 210	33.7 mg/l	35 days	Fish (Danio rerio)	Fresh water	Experimentally	ECHA
NOEC	OECD 211	37 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
LOEC	OECD 211	68 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA
EC_{50}	OECD 211	49 mg/l	21 days	Daphnia (Daphnia magna)	Fresh water	Experimentally	ECHA

12.2. Persistence and degradability

not available

Biodegradability

ethyl methacrylate							
Parameter	Method	Value	Exposure time	Environment	Value determination	Result	Source
% Degradation	OECD 301D	79.1 %	21 days	Fresh water	Experimentally	Easily biodegradable	ECHA

ethylene dimethacrylate							
Parameter	Method	Value	Exposure time	Environment	Value determination	Result	Source
	OECD 301F	69 %	28 days	Activated sludge	Experimentally	Easily biodegradable	ECHA

methyl methacrylate							
Parameter	Method	Value	Exposure time	Environment	Value determination	Result	Source
% Degradation	OECD 301C	94 %	14 days	Fresh water	Experimentally	Easily biodegradable	ECHA

N,N-dimethyl-p-toluidine							
Parameter	Method	Value	Exposure time	Environment	Value determination	Result	Source
						Hardly biodegradable	

12.3. Bioaccumulative potential

Data not available.

ethylene dimethacrylate							
Parameter	Value	Exposure time	Species	Environment	Temperature [°C]	Value determination	Source
BCF	21.9					Experimentally	ECHA

N,N-dimethyl-p-toluidine							
Parameter	Value	Exposure time	Species	Environment	Temperature [°C]	Value determination	Source
BCF	29.09-33.19			Activated sludge		Calculation of value	ECHA

12.4. Mobility in soil

Data not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Data not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

16 03 03 inorganic wastes containing hazardous substances *

Packaging waste type code

15 01 10 packaging containing residues of or contaminated by hazardous substances *

(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information

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 Flammable liquids

14.4. Packing group

II - substances presenting medium danger

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

Additional information

Hazard identification No.	**339**
UN number	**1247**
Classification code	F1
Safety signs	3

Road transport - ADR

Special provisions	386
Limited quantities	1 L
Excepted quantities	E2
Packaging	
Packing instructions	P001, IBC02, R001
Mixed packing provisions	MP19
Portable tanks and bulk containers	
Guidelines	T4
Special provisions	TP1
ADR tank	
Tank code	LGBF
Vehicles for tank carriage	FL
Transport category	0
Tunnel restriction code	(D/E)
Special provision for	
packages	V8
operation	S2, S4, S20

Railway transport - RID

Special provisions	386
Excepted quantities	E2
Packaging	
Packing instructions	P001, IBC02, R001
Mixed packing provisions	MP19
Portable tanks and bulk containers	
Guidelines	T4
Special provisions	TP1
RID Tanks	
Tank code	LGBF
Transport category	0
Special provision for	
packages	W 8

Air transport - ICAO/IATA

Packaging instructions for limited amount	Y341
Packaging instructions passenger	353
Cargo packaging instructions	364

Marine transport - IMDG

EmS (emergency plan)	F-E, S-D

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.

Guidelines for safe handling used in the safety data sheet

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours.
P264	Wash hands and exposed parts of the body thoroughly after handling.
P280	Wear protective gloves.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use powder extinguisher/sand/carbon dioxide to extinguish.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC_0	Concentration of a substance when it is affected 0% of the population
EC_{10}	Concentration of a substance when it is affected 10% of the population
EC_{100}	Concentration of a substance when it is affected 100% of the population
EC_{50}	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union

EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC_0	Lethal concentration of a substance in which it can be expected death of 0% of the population
LC_{100}	Lethal concentration of a substance in which it can be expected death of 100% of the population
LC_{50}	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD_{50}	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log Kow	Octanol-water partition coefficient
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

Version 2.0 replaces the SDS version from 05/18/2021. Data updates and changes have been made to all sections of the SDS.

More information

Classification procedure - calculation method.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.