plastifloor

Safety Data Sheet

according to UK REACH Regulation

PLASTIFLOOR® 418

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

1.1. Product identifier

PLASTIFLOOR® 418

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

Use of the substance/mixture

Coatings.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	Plasti Chemie Produktionsgesellschaft mbH	
Street:	Falgardring 1	
Place:	D-08223 Falkenstein	
Telephone:	+49 (0)3745/74432-0	Telefax: +49 (0)3745/74432-27
e-mail:	volkmar.lull@plasti-chemie.de	
Contact person:	Hr. Volkmar Lull	Telephone: +49 (0)3745/74432-0
Internet:	www.plasti-chemie.de	
Responsible Department:	volkmar.lull@plasti-chemie.de	

1.4. Emergency telephone number:

Chemtrec: 1-800-424-9300 for US
+1 703-527-3887 outside US
NHS Direct (UK): +44 (0) 845 46 47; 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Hazard categories:
Flammable liquid: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Respiratory or skin sensitisation: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.
Harmful to aquatic life with long lasting effects.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate
2-ethylhexyl acrylate
Tetramethylene dimethacrylate
n-butyl methacrylate
Dibutyl maleate
Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol
2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate)

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.
H412	Harmful to aquatic life with long lasting effects.

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 soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.

2.3. Other hazards

In use, may form flammable/explosive vapour-air mixture.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate			45 - < 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			
103-11-7	2-ethylhexyl acrylate			25 - < 30 %
	203-080-7	607-107-00-7	01-2119453158-37	
	Skin Irrit. 2, Skin Sens. 1, STOT SE 3, Aquatic Chronic 3; H315 H317 H335 H412			
2082-81-7	Tetramethylene dimethacrylate			3 - < 5 %
	218-218-1		01-2119967415-30	
	Skin Sens. 1B; H317			
97-88-1	n-butyl methacrylate			1 - < 3 %
	202-615-1	607-033-00-5	01-2119486394-28	
	Flam. Liq. 3, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H226 H315 H319 H317 H335			
105-76-0	Dibutyl maleate			1 - < 3 %
	203-328-4		01-2119523581-45	
	Skin Sens. 1, STOT RE 2, Aquatic Acute 1; H317 H373 H400			
-	Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol			0.5 - < 1 %
	911-490-9		01-2119979579-10	

	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H302 H315 H318 H317 H412	
10193-99-4	2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate)	0.2 - < 0.3 %
	233-482-8	
	Acute Tox. 4, Skin Sens. 1A; H302 H317	

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		
80-62-6	201-297-1	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	45 - < 50 %
	inhalation: LC50 = 29,8 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg; oral: LD50 = >5000 mg/kg		
103-11-7	203-080-7	2-ethylhexyl acrylate	25 - < 30 %
	dermal: LD50 = >2000 mg/kg; oral: LD50 = 4435 mg/kg		
2082-81-7	218-218-1	Tetramethylene dimethacrylate	3 - < 5 %
	dermal: LD50 = > 3000 mg/kg; oral: LD50 = (10,066) mg/kg		
97-88-1	202-615-1	n-butyl methacrylate	1 - < 3 %
	inhalation: LC50 = 29 mg/l (dusts or mists); dermal: LD50 = 10181 mg/kg; oral: LD50 = > 17900 mg/kg		
105-76-0	203-328-4	Dibutyl maleate	1 - < 3 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = >= 3730 mg/kg		
-	911-490-9	Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol	0.5 - < 1 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 619 mg/kg		
10193-99-4	233-482-8	2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate)	0.2 - < 0.3 %
	oral: ATE = 500 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

No information available.

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 (CO2). 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 Carbon dioxide (CO2).

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.

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 measures

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, smoke, sniff. 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: 5-25°C

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
80-62-6	Methyl methacrylate	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate		
Worker DNEL, long-term	inhalation	systemic	208 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
2082-81-7	Tetramethylene dimethacrylate		
Worker DNEL, long-term	inhalation	systemic	14,5 mg/m³
Worker DNEL, long-term	dermal	systemic	4,2 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	4,3 mg/m³
Consumer DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	2,5 mg/kg bw/day
97-88-1	n-butyl methacrylate		
Worker DNEL, long-term	dermal	local	1 %
Worker DNEL, acute	dermal	local	1 %
Consumer DNEL, long-term	dermal	local	1 %
Consumer DNEL, acute	dermal	local	1 %
Consumer DNEL, long-term	inhalation	systemic	66,5 mg/m³
Consumer DNEL, long-term	dermal	systemic	3 mg/kg bw/day
Consumer DNEL, long-term	inhalation	local	366,4 mg/m³
Worker DNEL, long-term	inhalation	local	409 mg/m³
Worker DNEL, long-term	dermal	systemic	5 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	415,9 mg/m³
105-76-0	Dibutyl maleate		
Worker DNEL, long-term	inhalation	systemic	5,28 mg/m³
Worker DNEL, long-term	inhalation	local	5,28 mg/m³
Worker DNEL, long-term	dermal	systemic	0,42 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	24,2 mg/kg bw/day
Worker DNEL, long-term	dermal	local	4,12 mg/cm²
Consumer DNEL, long-term	oral	systemic	0,25 mg/kg bw/day
-	Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol		
Worker DNEL, long-term	inhalation	systemic	9,8 mg/m³
Worker DNEL, long-term	dermal	systemic	1,4 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	2,9 mg/m³
Consumer DNEL, long-term	dermal	systemic	0,83 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,83 mg/kg bw/day

PNEC values

CAS No	Substance
Environmental compartment	Value

80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	
Freshwater		0.94 mg/l
Marine water		0.94 mg/l
Freshwater sediment		5.74 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		1.47 mg/kg
2082-81-7	Tetramethylene dimethacrylate	
Freshwater		0,043 mg/l
Freshwater (intermittent releases)		0,098 mg/l
Marine water		0,004 mg/l
Freshwater sediment		3,12 mg/kg
Marine sediment		0,312 mg/kg
Micro-organisms in sewage treatment plants (STP)		2 mg/l
Soil		0,573 mg/kg
97-88-1	n-butyl methacrylate	
Freshwater		0,017 mg/l
Freshwater (intermittent releases)		0,056 mg/l
Marine water		0,002 mg/l
Freshwater sediment		4,73 mg/kg
Marine sediment		0,473 mg/kg
Micro-organisms in sewage treatment plants (STP)		31,7 mg/l
Soil		0,935 mg/kg
105-76-0	Dibutyl maleate	
Freshwater		0,001 mg/l
Freshwater (intermittent releases)		0,006 mg/l
Marine water		0 mg/l
Freshwater sediment		0,031 mg/kg
Marine sediment		0,003 mg/kg
Secondary poisoning		6,33 mg/kg
Micro-organisms in sewage treatment plants (STP)		4,886 mg/l
Soil		0,006 mg/kg
-	Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol	
Freshwater		0,048 mg/l
Freshwater (intermittent releases)		0,48 mg/l
Marine water		0,005 mg/l
Freshwater sediment		1,2 mg/kg
Marine sediment		0,12 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,21 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. (BS/EN 166)

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

Skin protection

Wear fire/flame resistant/retardant clothing.
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

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
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:	violet
Odour:	characteristic

		Test method
Changes in the physical state		
Melting point/freezing point:	not applicable	
Boiling point or initial boiling point and boiling range:	not determined	
Flash point:	10 (MMA) °C	DIN 51755

Explosive properties

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

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined

Oxidizing properties

none.

pH-Value:	not determined
Viscosity / dynamic: (at 40 °C)	not determined
Viscosity / kinematic: (at 20 °C)	not determined
Flow time:	not determined
Water solubility:	insoluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	38,7 (MMA) hPa
Density (at 20 °C):	not determined
Relative vapour density:	not determined

9.2. Other information

Other safety characteristics

Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Evaporation rate:	not determined

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Can polymerise exothermically if heated, exposed to air, sunlight or by addition or free radical initiators.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Reacts with : Amines
Refer to chapter 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 acid.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicocinetics, metabolism and distribution

No data available.

Acute toxicity

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

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate					
	oral	LD50 mg/kg	>5000	Rat	ECHA Dossier	WoE
	dermal	LD50 mg/kg	> 5000	Rabbit	ECHA Dossier	OECD Guideline 402
	inhalation (4 h) aerosol	LC50	29,8 mg/l	Rat	ECHA Dossier	
103-11-7	2-ethylhexyl acrylate					
	oral	LD50 mg/kg	4435	Rat	ECHA Dossier	
	dermal	LD50 mg/kg	>2000	Rabbit	ECHA Dossier	
2082-81-7	Tetramethylene dimethacrylate					
	oral	LD50 mg/kg	(10,066)	Rat	Study report (1978)	OECD Guideline 401
	dermal	LD50 mg/kg	> 3000	Rabbit	Kirk-Othmer, Encyclopedia of chemical te	
97-88-1	n-butyl methacrylate					
	oral	LD50 mg/kg	> 17900	Rat	J. Ind. Hyg. Toxicol. 23: 343-351 (1941)	other: pre-guideline development
	dermal	LD50 mg/kg	10181	Rabbit	Amer. Ind. Hyg. Assoc. J. Vol 30 (5): 47	other
	inhalation (4 h) aerosol	LC50	29 mg/l	Rat	ECHA Dossier	
105-76-0	Dibutyl maleate					
	oral	LD50 mg/kg	>= 3730	Rat	Publication (1954)	Follows basic principles of an OECD401 b
	dermal	LD50 mg/kg	> 2000	Rat	Study report (1992)	OECD Guideline 402
-	Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol					
	oral	LD50 mg/kg	619	Rat	Study report (1996)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rat	Study report (2013)	OECD Guideline 402
10193-99-4	2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate)					

	oral	ATE mg/kg	500			

Irritation and corrosivity

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. (methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; 2-ethylhexyl acrylate; Tetramethylene dimethacrylate; n-butyl methacrylate; Dibutyl maleate; Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol; 2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl bis(mercaptoacetate))

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

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

No data available.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
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 mg/l	>110	72 h	Pseudokirchnerella subcapitata	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	69 mg/l	48 h	Daphnia magna	ECHA Dossier	EPA OTS 797.1300
	Fish toxicity	NOEC	9,4 mg/l	35 d	Brachydanio rerio	ECHA Dossier	
	Crustacea toxicity	NOEC	37 mg/l	21 d	Daphnia magna	ECHA Dossier	OECD Guideline 211
	Acute bacteria toxicity	(100 mg/l)			activated sludge	ECHA Dossier	OECD 301C
103-11-7	2-ethylhexyl acrylate						
	Acute fish toxicity	LC50 mg/l	1,81	96 h	Oncorhynchus mykiss	ECHA Dossier	
	Acute algae toxicity	ErC50 mg/l	1,71	72 h	Desmodesmus subspicatus	ECHA Dossier	
	Acute crustacea toxicity	EC50	1,3 mg/l	48 h	Daphnia magna	ECHA Dossier	
2082-81-7	Tetramethylene dimethacrylate						
	Acute algae toxicity	ErC50 mg/l	(4,97)	72 h	Desmodesmus subspicatus	REACH Dossier	OECD Guideline 201

	Crustacea toxicity	NOEC	5,09 mg/l	21 d	Daphnia magna	REACH Dossier	OECD Guideline 211
97-88-1	n-butyl methacrylate						
	Acute fish toxicity	LC50	11 mg/l	96 h	Pimephales promelas	Study report (1993)	OECD Guideline 203
	Acute algae toxicity	ErC50	31,2 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1998)	OECD Guideline 201
	Acute crustacea toxicity	EC50	25,4 mg/l	48 h	Daphnia magna	Study report (1998)	OECD Guideline 202
	Crustacea toxicity	NOEC	1,1 mg/l	21 d	Daphnia magna	Study report (1998)	OECD Guideline 211
105-76-0	Dibutyl maleate						
	Acute fish toxicity	LC50	1,2 mg/l	96 h	Oncorhynchus mykiss	Study report (1991)	OECD Guideline 203
	Acute algae toxicity	ErC50	6,2 mg/l	72 h	Desmodesmus subspicatus	Study report (1992)	OECD Guideline 201
	Acute bacteria toxicity	(488,6 mg/l)		3 h	activated sludge of a predominantly domestic sewage	Study report (2010)	OECD Guideline 209
-	Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol						
	Acute fish toxicity	LC50	> 100 mg/l	96 h	Cyprinus carpio	REACh Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	REACh Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	(48) mg/l	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202
	Acute bacteria toxicity	(> 1000 mg/l)		3 h	activated sludge of a predominantly domestic sewage	REACh Registration Dossier	OECD Guideline 209

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
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)			
103-11-7	2-ethylhexyl acrylate			
	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	>80%	28	ECHA Dossier
	Readily biodegradable (according to OECD criteria).			
97-88-1	n-butyl methacrylate			
	OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F	88%	28	ECHA Dossier
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	1,32

103-11-7	2-ethylhexyl acrylate	4,64 (25°C)
2082-81-7	Tetramethylene dimethacrylate	3,1
97-88-1	n-butyl methacrylate	2,99
105-76-0	Dibutyl maleate	3,39
-	Reaction mass of 2-{[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino}ethanol and 2,2'-[(4-methylphenyl)imino]diethanol	2

BCF

CAS No	Chemical name	BCF	Species	Source
97-88-1	n-butyl methacrylate	70		J. Fish Board Can. 3
105-76-0	Dibutyl maleate	81,34		U.S. Environmental P

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.

12.6. Endocrine disrupting properties

No data available.

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

080299 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of other coatings (including ceramic materials); wastes not otherwise specified

List of Wastes Code - used product

080299 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of other coatings (including ceramic materials); wastes not otherwise specified

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: UN 1866

14.2. UN proper shipping name: RESIN SOLUTION

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3

Classification code: F1
Special Provisions: 640D
Limited quantity: 5 L
Excepted quantity: E2
Transport category: 2
Hazard No: 33
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1866

14.2. UN proper shipping name: Resin solution

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3

Classification code: F1
Special Provisions: 640D
Limited quantity: 5 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1866

14.2. UN proper shipping name: RESIN SOLUTION

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3

Marine pollutant: NO
Special Provisions: -
Limited quantity: 5 L
Excepted quantity: E2
EmS: F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1866

14.2. UN proper shipping name: RESIN SOLUTION

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3

Special Provisions:	A3
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

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

2010/75/EU (VOC):	not determined
2004/42/EC (VOC):	not determined
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

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):	2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate
2-ethylhexyl acrylate
Tetramethylene dimethacrylate

SECTION 16: Other information

Changes

Rev. 1.00; Initial release: 25.05.2021

Abbreviations and acronyms

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

Classification for mixtures and used evaluation method according to GB CLP Regulation

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
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data and / or calculated and / or estimated.

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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)