

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

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

1.1 Product identifier

Product identifier : 9043
Product name : Permasolid® Clear Coat Color Additive
Product type : Liquid.
Other means of identification : 4025331469476
Date of issue : 9 April 2024
Version : 1.2
Date of previous issue : 9 April 2024

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

Identified uses : Coating component.
Uses advised against : Not for sale to or use by consumers.

1.3 Details of the supplier of the safety data sheet

Axalta Coating Systems Germany GmbH & Co. KG
Christbusch 25
DE 42285 Wuppertal
+49 (0)202 529-0

e-mail address of person responsible for this SDS : sds-competence@axalta.com

1.4 Emergency telephone number

Supplier

Telephone number : +(44)-870-8200418
Hours of operation :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 3, H226
Skin Irrit. 2, H315
Eye Irrit. 2, H319
Skin Sens. 1, H317
STOT SE 3, H335
STOT RE 2, H373
Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ingredients of unknown toxicity : 7.7 percent of the mixture consists of component(s) of unknown acute oral toxicity
7.7 percent of the mixture consists of component(s) of unknown acute dermal toxicity
7.7 percent of the mixture consists of component(s) of unknown acute inhalation toxicity

SECTION 2: Hazards identification

Ingredients of unknown ecotoxicity : Contains 7.7% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Contains : Reaction mass of ethylbenzene and xylene
 Naphthenic acids
 Fatty acids, linseed-oil, reaction products with 2-amino-2-(hydroxymethyl)
 -1,3-propanediol and formaldehyde
 methyl methacrylate
 n-butyl methacrylate
 2-hydroxyethyl acrylate

Hazard statements : H226 - 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.

Precautionary statements

Prevention : P280 - Wear protective gloves. Wear eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 - Avoid release to the environment.
 P260 - Do not breathe vapour.
 P264 - Wash hands thoroughly after handling.

Response : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

: Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Reaction mass of ethylbenzene and xylene	REACH #: 01-2119539452-40 EC: 905-588-0	≥25 - ≤50	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1]
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4	≥10 - ≤17	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
isopentyl acetate	REACH #: 01-2119548408-32 EC: 204-662-3 CAS: 123-92-2 Index: 607-130-00-2	≤2	Flam. Liq. 3, H226 EUH066	[1] [2]
Naphthenic acids	EC: 215-662-8 CAS: 1338-24-5	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	[1]
Fatty acids, linseed-oil, reaction products with 2-amino-2-(hydroxymethyl)-1,3-propanediol and formaldehyde	REACH #: 01-2120771590-53 EC: 279-510-2 CAS: 80584-99-2	<1	Skin Sens. 1B, H317 Aquatic Chronic 3, H412	[1]
methyl methacrylate	REACH #: 01-2119452498-28 EC: 201-297-1 CAS: 80-62-6	<1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	[1] [2]
n-butyl methacrylate	REACH #: 01-2119486394-28 EC: 202-615-1 CAS: 97-88-1	<1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335	[1]
2-hydroxyethyl acrylate	REACH #: 01-2119459345-34 EC: 212-454-9 CAS: 818-61-1 Index: 607-072-00-8	≤0.15	Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a physical, health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO₂, powders, water spray.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.

In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep away from heat, sparks and flame. No sparking tools should be used.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Put on appropriate personal protective equipment (see Section 8).

Never use pressure to empty. Container is not a pressure vessel.

SECTION 7: Handling and storage

Always keep in containers made from the same material as the original one.

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
n-butyl acetate	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 966 mg/m ³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m ³ 8 hours. TWA: 150 ppm 8 hours.
isopentyl acetate	EH40/2005 WELs (United Kingdom (UK), 1/2020). [pentyl acetates (all isomers)] STEL: 541 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 50 ppm 8 hours. TWA: 270 mg/m ³ 8 hours.
methyl methacrylate	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 416 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 208 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
Reaction mass of ethylbenzene and xylene	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Systemic
n-butyl acetate	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	12 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	35.7 mg/m ³	General population	Local
	DNEL	Long term Inhalation	48 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	300 mg/m ³	General population	Local
	DNEL	Short term Inhalation	300 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	300 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m ³	Workers	Local
isopentyl acetate	DNEL	Short term Inhalation	600 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	1.47 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.47 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2.95 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	5.1 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	20.8 mg/m ³	Workers	Systemic
Naphthenic acids	DNEL	Long term Oral	1.51 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5.25 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	7.55 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	15.1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	21.3 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0.467 mg/kg bw/day	Workers	Systemic
Fatty acids, linseed-oil, reaction products with 2-amino-2-(hydroxymethyl)-1,3-propanediol and formaldehyde	DNEL	Long term Dermal	0.467 mg/kg bw/day	Workers	Systemic
methyl methacrylate	DNEL	Long term Inhalation	1.64 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	1.5 mg/cm ²	General population	Local

SECTION 8: Exposure controls/personal protection

n-butyl methacrylate	DNEL	Long term Dermal	1.5 mg/cm ²	General population	Local
	DNEL	Short term Dermal	1.5 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	1.5 mg/cm ²	Workers	Local
	DNEL	Long term Oral	8.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	8.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	13.67 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	74.3 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	104 mg/m ³	General population	Local
	DNEL	Short term Inhalation	208 mg/m ³	General population	Local
	DNEL	Long term Inhalation	208 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	348.4 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	416 mg/m ³	Workers	Local
	DNEL	Long term Dermal	3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	66.5 mg/m ³	General population	Systemic
	2-hydroxyethyl acrylate	DNEL	Long term Inhalation	366.4 mg/m ³	General population
DNEL		Long term Inhalation	409 mg/m ³	Workers	Local
DNEL		Long term Inhalation	415.9 mg/m ³	Workers	Systemic
DNEL		Long term Inhalation	2.4 mg/m ³	Workers	Local

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail	
Reaction mass of ethylbenzene and xylene	Fresh water	0.327 mg/l	-	
	Marine water	0.327 mg/l	-	
	Sewage Treatment Plant	6.58 mg/l	-	
	Fresh water sediment	12.46 mg/kg dwt	-	
	Marine water sediment	12.46 mg/kg dwt	-	
	n-butyl acetate	Soil	2.31 mg/kg	-
		Soil	0.09 mg/kg	-
		Fresh water	0.18 mg/l	-
		Sewage Treatment Plant	35.6 mg/l	-
		Marine water	0.018 mg/l	-
Fresh water sediment		0.981 mg/kg	-	
isopentyl acetate		Marine water sediment	0.098 mg/kg	-
		Fresh water	0.011 mg/l	-
		Marine water	0.001 mg/l	-
		Fresh water sediment	0.335 mg/kg	-
	Marine water sediment	0.034 mg/kg	-	
	Sewage Treatment Plant	30 mg/l	-	
methyl methacrylate	Soil	0.06 mg/kg dwt	-	
	Fresh water	0.94 mg/l	-	
	Fresh water sediment	10.2 mg/kg dwt	-	
	Marine water	0.094 mg/l	-	
	Marine water sediment	1.02 mg/kg dwt	-	

SECTION 8: Exposure controls/personal protection

	Soil	1.48 mg/kg dwt	-
	Sewage Treatment Plant	10 mg/l	-

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves : Duration / breakthrough time: <1 hour,
 Glove material: NBR, nitrile rubber, material thickness as splash protection: at least 0.2 mm, (EN374)
 Glove material: NBR, nitrile rubber Material thickness for short-term contact: at least 0.5 mm, (EN374)
 The recommendation for the type or types of glove to use when handling this product is based on information from the following source:
 Expert judgment
 The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flattening should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Environmental exposure controls : Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties**Appearance**

Physical state	: Liquid.
Colour	: Red.
Odour	: Not available.
Odour threshold	: Not available.
Melting point/freezing point	: Technically not possible to measure
Initial boiling point and boiling range	: 125 to 142°C (257 to 287.6°F)
Flammability (solid, gas)	: Not available.
Upper/lower flammability or explosive limits	: Lower: 1% Upper: 7.5%
Flash point	: Closed cup: 29°C (84.2°F)
Auto-ignition temperature	: 280°C (536°F)
Decomposition temperature	: Not applicable.
pH	: Not applicable.
Viscosity	: Dynamic: 88 mPa·s Kinematic: 90 mm ² /s
Solubility(ies)	:

Media	Result
cold water	Very slightly soluble

Solubility in water	: Not available.
Miscible with water	: No.
Partition coefficient: n-octanol/ water	: Not applicable.
Vapour pressure	: 0.65 kPa (4.9 mm Hg)
Relative density	: Not available.
Density	: 0.983 g/cm ³
Vapour density	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.
Weight volatiles	: 59.7 % (w/w)
VOC content	: 59.3 % (w/w) (2010/75/EU)

9.2 Other information

Flow time (ISO 2431)	: 68 s (room temperature) [Jet diameter: 4 mm]
room temperature (=20°C)	

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

SECTION 10: Stability and reactivity

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Not applicable

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Naphthenic acids, Fatty acids, linseed-oil, reaction products with 2-amino-2-(hydroxymethyl)-1,3-propanediol and formaldehyde, methyl methacrylate, butyl methacrylate, 2-hydroxyethyl acrylate. May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	
Reaction mass of ethylbenzene and xylene	LC50 Inhalation Vapour	Rat	6350 to 6700 ppm	4 hours	
	LD50 Dermal	Rabbit	121236 mg/kg	-	
	LD50 Oral	Rat	3523 to 4000 mg/kg	-	
n-butyl acetate	LC50 Inhalation Vapour	Rat	21.1 mg/l	4 hours	
	LD50 Dermal	Rabbit	>17600 mg/kg	-	
	LD50 Oral	Rat	10768 mg/kg	-	
isopentyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-	
	LD50 Oral	Rat	16600 mg/kg	-	
	LD50 Oral	Rat	3 g/kg	-	
Naphthenic acids	LD50 Oral	Rat	3 g/kg	-	
	methyl methacrylate	LC50 Inhalation Vapour	Rat	78000 mg/m ³	4 hours
		LD50 Dermal	Rabbit	>5 g/kg	-
n-butyl methacrylate	LD50 Oral	Rat	7872 mg/kg	-	
	LC50 Inhalation Vapour	Rat	29 mg/l	4 hours	
	LD50 Dermal	Rat	17900 mg/kg	-	
2-hydroxyethyl acrylate	LD50 Oral	Rat	16 g/kg	-	
	LD50 Dermal	Rat	1001 mg/kg	-	
	LD50 Oral	Rat	548 mg/kg	-	

Acute toxicity estimates

SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
mixture	N/A	2575.5	N/A	26.0	N/A
Reaction mass of ethylbenzene and xylene	N/A	1100	N/A	11	N/A
n-butyl acetate	10768	N/A	N/A	21.1	N/A
isopentyl acetate	16600	N/A	N/A	N/A	N/A
Naphthenic acids	3000	N/A	N/A	N/A	N/A
methyl methacrylate	7872	N/A	N/A	78	N/A
n-butyl methacrylate	16000	17900	N/A	29	N/A
2-hydroxyethyl acrylate	548	300	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
isopentyl acetate	Skin - Erythema/Eschar	Rabbit	1.7	-	-
Naphthenic acids	Skin - Moderate irritant	Rabbit	-	-	-
n-butyl methacrylate	Skin - Mild irritant	Rabbit	-	500 uL	-
2-hydroxyethyl acrylate	Skin - Mild irritant	Rabbit	-	24 hours 10 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
Naphthenic acids	skin	Guinea pig	Sensitising
Fatty acids, linseed-oil, reaction products with 2-amino-2-(hydroxymethyl)-1,3-propanediol and formaldehyde	skin	Mouse	Sensitising

Mutagenicity**Carcinogenicity****Reproductive toxicity****Teratogenicity****Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
Reaction mass of ethylbenzene and xylene	Category 3	-	Respiratory tract irritation
n-butyl acetate	Category 3	-	Narcotic effects
methyl methacrylate	Category 3	-	Respiratory tract irritation
n-butyl methacrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Reaction mass of ethylbenzene and xylene	Category 2	-	-

Aspiration hazard

Product/ingredient name	Result
Reaction mass of ethylbenzene and xylene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

SECTION 11: Toxicological information

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
Inhalation : May cause respiratory irritation.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Reaction mass of ethylbenzene and xylene	Acute EC50 2.2 mg/l	Algae - Algae - <i>Selenastrum capricornutum</i>	73 hours
	Acute LC50 1 mg/l	Daphnia - Daphnia - <i>Daphnia magna</i>	24 hours
	Acute LC50 2.6 mg/l	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
	Chronic NOEC 16 mg/l	Micro-organism - Activated sludge - <i>Activated sludge</i>	28 days
n-butyl acetate	Acute LC50 185 ppm Marine water	Fish - Inland silverside - <i>Menidia beryllina</i>	96 hours

SECTION 12: Ecological information

isopentyl acetate	Acute LC50 11.1 mg/l	Fish	96 hours
Naphthenic acids	Acute LC50 5600 µg/l Fresh water	Fish - Bluegill - <i>Lepomis macrochirus</i>	96 hours
Fatty acids, linseed-oil, reaction products with 2-amino-2-(hydroxymethyl)-1,3-propanediol and formaldehyde	EC50 15 mg/l Fresh water	Algae - Algae	72 hours
	Acute EC50 4600 mg/l	Daphnia - Daphnia	48 hours
	Acute LC50 1000000 mg/l	Fish - <i>Danio rerio</i>	96 hours
	Chronic NOEC 12 mg/l	Algae - Algae	72 hours
methyl methacrylate	Acute LC50 130000 µg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i> - Adult	96 hours
n-butyl methacrylate	Chronic NOEC 2.6 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	21 days
2-hydroxyethyl acrylate	Acute LC50 4800 µg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i> - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
isopentyl acetate	OECD 301C Ready Biodegradability - Modified MITI Test (I)	88 % - Readily - 28 days	-	-
Naphthenic acids	OECD 310 Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	60 % - Readily - 17 days	-	-
2-hydroxyethyl acrylate	EU	78 % - Readily - 28 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
isopentyl acetate	-	-	Readily
Naphthenic acids	-	-	Readily
Fatty acids, linseed-oil, reaction products with 2-amino-2-(hydroxymethyl)-1,3-propanediol and formaldehyde	-	-	Not readily
2-hydroxyethyl acrylate	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Reaction mass of ethylbenzene and xylene	3.16	-	Low
n-butyl acetate	2.3	-	Low
isopentyl acetate	2.25	-	Low
methyl methacrylate	1.38	-	Low
n-butyl methacrylate	2.99	-	Low
2-hydroxyethyl acrylate	-0.17	-	Low

12.4 Mobility in soil

Permasolid® Clear Coat Color Additive

SECTION 12: Ecological information

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

Waste catalogue

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances





Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3 	3 	3 	3 

Permasolid® Clear Coat Color Additive

SECTION 14: Transport information

14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

ADR/RID : **Tunnel code** (D/E)
 ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P5c

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = GB CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method
STOT RE 2, H373	Calculation method
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
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.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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SECTION 16: Other information

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Version : 1.2

Notice to reader

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