

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended



S2211 Acrylic single-coat paint for steel and galvanized steel, semi-matt ZINOREX

Creation date	27th March 2017	Version	5.0
Revision date	17th May 2025		

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

1.1. Product identifier

Substance / mixture	S2211 Acrylic single-coat paint for steel and galvanized steel, semi-matt ZINOREX
Number	mixture
UFI	S2211-: A-C0992; A-R....; B-V0058; Z0R7012
Other mixture names	XNH1-YY9-G00S-3N3N

S2211 Akrylátová jednvrstvá barva na ocel a pozink, polomatná ZINOREX

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

Mixture's intended use

ZINOREX S2211 is used for quick-drying primers and topcoats of steel products, galvanized steel, including freshly galvanized materials.

Main intended use

PC-PNT-3 Paints/coatings - Protective and functional

Mixture uses advised against

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

Exposure scenario is attached to the Safety Data Sheet.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Name or trade name	COLORLAK, a.s.
Address	Tovární 1076, Staré Město, 686 03
	Czech Republic
Identification number (CRN)	49444964
VAT number	CZ49444964
Phone	+420 572527111
Email	colorlak@colorlak.cz
Web address	www.colorlak.cz

Competent person responsible for the safety data sheet

Name	Ing. Gabriela Kubíková
Email	kubikova@colorlak.cz

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. 3, H226
Skin Irrit. 2, H315
Skin Sens. 1A, H317
Eye Irrit. 2, H319
STOT RE 2, H373 (central nervous system)
Aquatic Chronic 2, H411

Most serious adverse physico-chemical effects

Flammable liquid and vapour.

Most serious adverse effects on human health and the environment

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause damage to the central nervous system through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

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2.2. Label elements

Hazard pictogram



Signal word

Warning

Hazardous substances

Technical xylene (mixed with ethylbenzene)

Phenol, methylstyrenated

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

maleic anhydride

Hazard statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H373	May cause damage to the central nervous system through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapours/spray.
P264	Wash hands/ stained body parts/ water and soap thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P370+P378	In case of fire: Use foam (alcohol resistant), carbon dioxide, a spray mist, powder to extinguish.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to by handing over to a person authorized to dispose of waste or a site designated by the town.

Supplemental information

EUH204	Contains isocyanates. May produce an allergic reaction.
EUH066	Repeated exposure may cause skin dryness or cracking.
Density	1.2-1.38 g/cm ³ at 23 °C (manufacturer's methodology B5/TD1-5 (ČSN EN ISO 2811-2))
VOC	0,380 kg/kg
TOC	0,283 kg/kg
Dry matter	57-90 % weight
VOC limit value	cat. A (i) SB: 500 g/l
Max. VOC content in the product in its ready to use condition	473 g/l

Requirements for child-resistant fastenings and tactile warning of danger

Container must carry a tactile warning of danger.

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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. Does not contain any PMT or vPvM components. The titanium dioxide contained contains < 1% particles with an aerodynamic diameter $\leq 10 \mu\text{m}$ and therefore the criteria for classification and additional warnings are not met.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

ZINOREX S2211 paint is a dispersion of pigments and fillers in a solution of synthetic resins in organic solvents with the addition of additives. Mixture of substances and additives specified below.

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
CAS: 1317-65-3 EC: 215-279-6	limestone	≤ 22		
Index: 022-006-00-2 CAS: 13463-67-7 EC: 236-675-5 Registration number: 01-2119489379-17	titanium dioxide	≤ 20		4, 5, 6
Index: 607-025-00-1 CAS: 123-86-4 EC: 204-658-1 Registration number: 01-2119485493-29	n-butyl acetate	10-20	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	8
CAS: 14807-96-6 EC: 238-877-9	talc ($\text{Mg}_3\text{H}_2(\text{SiO}_3)_4$)	≤ 14.4	not classified as dangerous	
EC: 905-588-0 Registration number: 01-2119539452-40	Technical xylene (mixed with ethylbenzene)	11-14	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312+H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Specific concentration limit: STOT RE 2, H373 (central nervous system): C > 10 %	8, A
Index: 030-011-00-6 CAS: 7779-90-0 EC: 231-944-3 Registration number: 01-2119485044-40-XXXX	trizinc bis(orthophosphate)	≤ 6.1	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	
CAS: 51274-00-1 EC: 257-098-5 Registration number: 01-2119457554-33	Iron hydroxide oxide yellow	≤ 5.3	not classified as dangerous	
CAS: 1309-37-1 EC: 215-168-2 Registration number: 01-2119457614-35-0000	diiron trioxide	≤ 5	not classified as dangerous	

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CAS: 9011-11-4 EC: 618-465-9	prop-1-en-2-ylbenzene; styrene	≤4.9	not classified as dangerous	
EC: 918-668-5 Registration number: 01-2119455851-35	Hydrocarbons, C9, aromatic	2-5	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335, H336 Aquatic Chronic 2, H411 EUH066	A
CAS: 84632-65-5 EC: 401-540-3 Registration number: 01-0000015139-70-xxxx	C.I. PIGMENT Red 254	≤2.2	not classified as dangerous	
CAS: 1333-86-4 EC: 215-609-9 Registration number: 01-2119384822-32	carbon black	≤2		
CAS: 68512-30-1 EC: 700-960-7 Registration number: 01-2119555274-38	Phenol, methylstyrenated	1-3	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 3, H412	A
CAS: 7631-86-9 EC: 231-545-4 Registration number: 01-2119379499-16	Silica, amorphous	0.1-1	not classified as dangerous	
CAS: 1065336-91-5 EC: 915-687-0 Registration number: 01-2119491304-40-0003	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	0.1-1	Skin Sens. 1A, H317 Repr. 2, H361f Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	A
Index: 603-127-00-5 CAS: 78-92-2 EC: 201-158-5	butan-2-ol	0.1-1	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335, H336	1
Index: 607-195-00-7 CAS: 108-65-6 EC: 203-603-9 Registration number: 01-2119475791-29	2-methoxy-1-methylethyl acetate	0.1-1	Flam. Liq. 3, H226 STOT SE 3, H336	8
CAS: 64742-94-5 EC: 919-284-0 Registration number: 01-2119463588-24	Hydrocarbons, C10, aromatics, >1% naphthalene	0.1-1	Asp. Tox. 1, H304 STOT SE 3, H336 Carc. 2, H351 Aquatic Chronic 2, H411	A
Index: 013-002-00-1 CAS: 7429-90-5 EC: 231-072-3 Registration number: 01-2119529243-45	aluminium powder (stabilised)	0.34	Flam. Sol. 1, H228 Water-react. 2, H261	3, B
Index: 603-108-00-1 CAS: 78-83-1 EC: 201-148-0 Registration number: 01-2119484609-23	2-methylpropan-1-ol	0.1-0.4	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335, H336	

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Index: 030-013-00-7 CAS: 1314-13-2 EC: 215-222-5 Registration number: 01-2119463881-32	zinc oxide	≤0.16	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	
Index: 607-062-00-3 CAS: 141-32-2 EC: 205-480-7 Registration number: 01-2119453155-43	n-butyl acrylate	≤0.005	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3, H335	2, 8
Index: 607-096-00-9 CAS: 108-31-6 EC: 203-571-6	maleic anhydride	≤0.003	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT RE 1, H372 (the respiratory system) (inhalation) EUH071 Specific concentration limit: Skin Sens. 1A, H317: C ≥ 0.001 %	
Index: 615-008-00-5 CAS: 4098-71-9 EC: 223-861-6 Registration number: 01-2119490408-31	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	≤0.002	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 3, H331 Resp. Sens. 1, H334 STOT SE 3, H335 Aquatic Chronic 2, H411 Specific concentration limit: Skin Sens. 1, H317: C ≥ 0.5 % Resp. Sens. 1, H334: C ≥ 0.5 %	7, 8, 9

Notes

- 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.
- 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".
- Note T: This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. If the results of the relevant method or methods in accordance with Part 2 of Annex I of this Regulation show that the specific form of substance marketed does not exhibit this physical property or these physical hazards, the substance shall be classified in accordance with the result or results of this test or these tests. Relevant information, including reference to the relevant test method(s) shall be included in the safety data sheet.
- Note V: If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied.
- Note W: It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

This note aims to describe the particular toxicity of the substance; it does not constitute a criterion for classification according to this Regulation.

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- 6 *Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$.*
- 7 *Note 2: The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.*
- 8 *A substance for which exposure limits are set.*
- 9 *The use of the substance is restricted by Annex XVII of REACH Regulation*
- A *Substance of unknown or variable composition, complex reaction products or biological materials - UVCB.*
- B *Explosive precursor*

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

Not expected.

If on skin

May cause an allergic skin reaction.

If in eyes

Causes serious eye irritation.

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.

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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. Flammable liquid and vapour. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water. Do not allow to enter drains.

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. Prevent contact with skin and eyes. No smoking. Contaminated work clothing should not be allowed out of the workplace. Wash hands and exposed parts of the body thoroughly after handling. 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. Avoid release to the environment.

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. Keep container tightly closed. Keep cool.

Content	Packaging type	Material of package
0,6 l	can / tin	FE
0,8 l	can / tin	FE
3,2 l	can / tin	FE
3,5 l	bucket	FE
7,2 l	bucket	FE
9 l	bucket	FE
18 l	bucket	FE
20 kg	bucket	FE
1000 kg	IBC (intermediate bulk container)	

Storage class

3A - Flammable liquids (flash point below 55 °C)

Storage temperature

+5 až +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

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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 (EU) 2019/1831

Substance name (component)	Type	Value
n-butyl acetate (CAS: 123-86-4)	OEL 8 hours	241 mg/m ³
	OEL 8 hours	50 ppm
	OEL 15 minutes	723 mg/m ³
	OEL 15 minutes	150 ppm

European Union

Commission Directive 2000/39/EC

Substance name (component)	Type	Value
n-butyl acrylate (CAS: 141-32-2)	OEL 8 hours	11 mg/m ³
	OEL 8 hours	2 ppm
	OEL 15 minutes	53 mg/m ³
	OEL 15 minutes	10 ppm

European Union

Commission Directive 2000/39/EC

Substance name (component)	Type	Value
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	OEL 8 hours	275 mg/m ³
	OEL 8 hours	50 ppm
	OEL 15 minutes	550 mg/m ³
	OEL 15 minutes	100 ppm

Notes

Skin.

European Union

Commission Directive 91/322/EEC

Substance name (component)	Type	Value
Technical xylene (mixed with ethylbenzene)	OEL 8 hours	442 mg/m ³
	OEL 8 hours	100 ppm
	OEL 15 minutes	884 mg/m ³
	OEL 15 minutes	200 ppm
	OEL 8 hours	221 mg/m ³
	OEL 8 hours	50 ppm
	OEL 15 minutes	442 mg/m ³
	OEL 15 minutes	100 ppm

European Union

Directive (EU) 2024/869 of the European Parliament and of the Council

Substance name (component)	Type	Value
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	OEL 8 hours	10 µg/m ³
	OEL 15 minutes	20 µg/m ³

Notes

The substance can cause sensitisation of the skin and of the respiratory tract.

As NCO.

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DNEL

2-methoxy-1-methylethyl acetate				
Workers / consumers	Route of exposure	Value	Effect	Source
Consumers	Dermal	320 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Oral	36 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Oral	500 mg/kg bw/day	Acute effects systemic	BL dodavatele
Consumers	Inhalation	33 mg/m ³	Chronic effects local	BL dodavatele
Consumers	Inhalation	33 mg/m ³	Chronic effects systemic	BL dodavatele
Workers	Dermal	796 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Workers	Inhalation	550 mg/m ³	Acute effects local	BL dodavatele
Workers	Inhalation	275 mg/m ³	Chronic effects systemic	BL dodavatele

2-methylpropan-1-ol				
Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	310 mg/m ³	Chronic effects local	BL dodavatele
Consumers	Inhalation	55 mg/m ³	Chronic effects local	BL dodavatele

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate				
Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	45 µg/m ³	Chronic effects local	ECHA
Workers	Inhalation	45 µg/m ³	Acute effects local	ECHA

aluminium powder (stabilised)				
Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	3.72 mg/m ³	Chronic effects systemic	echa
Consumers	Oral	3.95 mg/kg bw/day	Chronic effects systemic	echa

butan-2-ol				
Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	600 mg/m ³	Chronic effects systemic	ECHA
Workers	Dermal	405 mg/kg bw/day	Chronic effects systemic	ECHA
Consumers	Inhalation	213 mg/m ³	Chronic effects systemic	ECHA
Consumers	Dermal	203 mg/kg bw/day	Chronic effects systemic	ECHA
Consumers	Oral	15 mg/kg bw/day	Chronic effects systemic	ECHA

C.I. PIGMENT Red 254				
Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	1.25 mg/m ³	Chronic effects local	BL dodavatele
Consumers	Inhalation	10 mg/m ³	Chronic effects local	BL dodavatele

carbon black				
Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	2 mg/m ³	Acute effects local	BL dodavatele

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Hydrocarbons, C10, aromatics, >1% naphthalene

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	151 mg/m ³	Chronic effects systemic	ECHA
Workers	Dermal	12.5 mg/kg bw/day	Chronic effects systemic	ECHA
Consumers	Inhalation	32 mg/m ³	Chronic effects systemic	ECHA
Consumers	Dermal	32 mg/kg bw/day	Chronic effects systemic	ECHA
Consumers	Oral	7.5 mg/kg bw/day	Chronic effects systemic	ECHA

Hydrocarbons, C9, aromatic

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	150 mg/m ³	Chronic effects systemic	echa
Workers	Dermal	25 mg/kg bw/day	Chronic effects systemic	echa
Consumers	Inhalation	32 mg/m ³	Chronic effects systemic	echa
Consumers	Dermal	11 mg/kg bw/day	Chronic effects systemic	echa
Consumers	Oral	11 mg/kg bw/day	Chronic effects systemic	echa

Iron hydroxide oxide yellow

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	10 mg/m ³	Acute effects systemic	BL dodavatele
Workers	Inhalation	10 mg/m ³	Acute effects local	BL dodavatele

maleic anhydride

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	0.19 mg/m ³	Chronic effects systemic	ECHA
Workers	Inhalation	0.8 mg/m ³	Acute effects systemic	ECHA
Consumers	Inhalation	0.05 mg/m ³	Chronic effects systemic	ECHA
Consumers	Inhalation	0.08 mg/m ³	Chronic effects local	ECHA
Consumers	Dermal	0.1 mg/kg bw/day	Chronic effects systemic	ECHA
Consumers	Oral	0.06 mg/kg bw/day	Chronic effects systemic	ECHA

n-butyl acetate

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	300 mg/m ³	Chronic effects systemic	BL dodavatele
Workers	Inhalation	600 mg/m ³	Acute effects systemic	BL dodavatele
Workers	Inhalation	300 mg/m ³	Chronic effects local	BL dodavatele
Workers	Inhalation	600 mg/m ³	Acute effects local	BL dodavatele
Workers	Dermal	100 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Workers	Dermal	11 mg/kg bw/day	Acute effects systemic	BL dodavatele
Consumers	Inhalation	35.7 mg/m ³	Chronic effects systemic	BL dodavatele
Consumers	Inhalation	300 mg/m ³	Acute effects systemic	BL dodavatele
Consumers	Inhalation	35.7 mg/m ³	Chronic effects local	BL dodavatele
Consumers	Inhalation	300 mg/m ³	Acute effects local	BL dodavatele
Consumers	Dermal	6 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Dermal	6 mg/kg bw/day	Acute effects systemic	BL dodavatele
Consumers	Dermal	2 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Dermal	2 mg/kg bw/day	Acute effects systemic	BL dodavatele

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n-butyl acrylate

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	11 mg/m ³	Chronic effects local	echa

Phenol, methylstyrenated

Workers / consumers	Route of exposure	Value	Effect	Source
Consumers	Oral	0.2 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Dermal	1.7 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Workers	Dermal	3.5 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Inhalation	0.35 mg/m ³	Chronic effects systemic	BL dodavatele
Workers	Inhalation	1.4 mg/m ³	Chronic effects systemic	BL dodavatele

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	1.27 mg/m ³	Chronic effects systemic	BL dodavatele
Workers	Dermal	1.8 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Inhalation	0.31 mg/m ³	Chronic effects systemic	BL dodavatele
Consumers	Dermal	0.9 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Oral	0.18 mg/kg bw/day	Chronic effects systemic	BL dodavatele

Silica, amorphous

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	4 mg/m ³	Chronic effects systemic	BL dodavatele

Technical xylene (mixed with ethylbenzene)

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	221 mg/m ³	Chronic effects systemic	BL dodavatele
Workers	Inhalation	221 mg/m ³	Chronic effects local	BL dodavatele
Workers	Dermal	212 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Inhalation	65.3 mg/m ³	Chronic effects systemic	BL dodavatele
Consumers	Inhalation	65.3 mg/m ³	Chronic effects local	BL dodavatele
Consumers	Dermal	125 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Oral	12.5 mg/kg bw/day	Chronic effects systemic	BL dodavatele

titanium dioxide

Workers / consumers	Route of exposure	Value	Effect	Source
	Inhalation	10 mg/m ³	Chronic effects local	BL dodavatele

trizinc bis(orthophosphate)

Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	5 mg/m ³	Chronic effects systemic	BL dodavatele
Workers	Dermal	83 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Inhalation	2.5 mg/m ³	Chronic effects systemic	BL dodavatele
Consumers	Dermal	83 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Oral	0.83 mg/kg bw/day	Chronic effects systemic	BL dodavatele

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zinc oxide				
Workers / consumers	Route of exposure	Value	Effect	Source
Workers	Inhalation	5 mg/m ³	Chronic effects systemic	BL dodavatele
Workers	Dermal	83 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Inhalation	2.5 mg/m ³	Chronic effects systemic	BL dodavatele
Consumers	Dermal	83 mg/kg bw/day	Chronic effects systemic	BL dodavatele
Consumers	Oral	830 µg/kg	Chronic effects systemic	BL dodavatele
Workers	Inhalation	0.5 mg/m ³	Chronic effects local	BL dodavatele

PNEC

2-methoxy-1-methylethyl acetate		
Route of exposure	Value	Source
Freshwater environment	0.635 mg/l	BL dodavatele
Water (intermittent release)	6.35 mg/l	BL dodavatele
Marine water	0.064 mg/l	BL dodavatele
Microorganisms in sewage treatment	100 mg/l	BL dodavatele
Freshwater sediment	3.29 mg/kg of dry substance of sediment	BL dodavatele
Sea sediments	0.329 mg/kg of dry substance of sediment	BL dodavatele
Soil (agricultural)	0.29 mg/kg of dry substance of soil	BL dodavatele

2-methylpropan-1-ol		
Route of exposure	Value	Source
Freshwater environment	0.4 mg/l	BL dodavatele
Marine water	0.04 mg/l	BL dodavatele
Water (intermittent release)	11 mg/l	BL dodavatele
Microorganisms in sewage treatment	10 mg/l	BL dodavatele
Freshwater sediment	1.52 mg/kg of dry substance of sediment	BL dodavatele
Sea sediments	0.152 mg/kg of dry substance of sediment	BL dodavatele
Soil (agricultural)	0.0699 mg/kg of dry substance of soil	BL dodavatele

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate		
Route of exposure	Value	Source
Freshwater environment	27 µg/l	ECHA
Water (intermittent release)	270 µg/l	ECHA
Marine water	400 µg/l	ECHA
Seawater (intermittent release)	40 µg/l	ECHA
Microorganisms in sewage treatment	10.6 mg/l	ECHA
Freshwater sediment	98.51 mg/kg of dry substance of sediment	ECHA
Sea sediments	1.46 mg/kg of dry substance of sediment	ECHA
Soil (agricultural)	19.8 mg/kg of dry substance of soil	ECHA

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aluminium powder (stabilised)

Route of exposure	Value	Source
Microorganisms in sewage treatment	20 mg/l	echa

butan-2-ol

Route of exposure	Value	Source
Drinking water	47.1 mg/l	ECHA
Water (intermittent release)	47.1 mg/l	ECHA
Marine water	47.1 mg/l	ECHA
Microorganisms in sewage treatment	761 mg/l	ECHA
Freshwater sediment	196.19 mg/kg of dry substance of sediment	ECHA
Sea sediments	196.19 mg/kg of dry substance of sediment	ECHA

C.I. PIGMENT Red 254

Route of exposure	Value	Source
Freshwater environment	0.499 mg/l	BL dodavatele
Water (intermittent release)	0.499 mg/l	BL dodavatele
Marine water	0.499 mg/l	BL dodavatele
Microorganisms in sewage treatment	1 mg/l	BL dodavatele
Sea sediments	668 mg/l	BL dodavatele
Freshwater sediment	668 mg/l	BL dodavatele
Soil (agricultural)	1 mg/l	BL dodavatele

carbon black

Route of exposure	Value	Source
Freshwater environment	5 mg/l	BL dodavatele
Marine water	5 mg/l	BL dodavatele

maleic anhydride

Route of exposure	Value	Source
Freshwater environment	75 µg/l	ECHA
Marine water	7.5 µg/l	ECHA
Water (intermittent release)	428.1 µg/l	ECHA
Microorganisms in sewage treatment	4.46 mg/l	ECHA
Freshwater sediment	60 µg/kg	ECHA
Sea sediments	6 µg/kg	ECHA
Soil (agricultural)	10 µg/kg	ECHA

n-butyl acetate

Route of exposure	Value	Source
Freshwater environment	0.18 mg/l	BL dodavatele
Marine water	0.018 mg/l	BL dodavatele
Freshwater sediment	0.981 mg/kg of dry substance of sediment	BL dodavatele
Sea sediments	0.0981 mg/kg of dry substance of sediment	BL dodavatele

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n-butyl acetate

Route of exposure	Value	Source
Soil (agricultural)	0.0903 mg/kg of dry substance of soil	BL dodavatele

n-butyl acrylate

Route of exposure	Value	Source
Freshwater environment	2.72 µg/l	echa
Marine water	0.27 µg/l	echa
Water (intermittent release)	11 µg/l	echa
Microorganisms in sewage treatment	3.5 mg/l	echa
Freshwater sediment	33.8 µg/kg	echa
Sea sediments	3.38 µg/kg	echa
Soil (agricultural)	1 mg/kg of dry substance of soil	echa

Phenol, methylstyrenated

Route of exposure	Value	Source
Freshwater sediment	1064 mg/kg	BL dodavatele
Sea sediments	106 mg/kg	BL dodavatele
Freshwater environment	14 µg/l	BL dodavatele
Water (intermittent release)	140 µg/l	BL dodavatele
Marine water	1.4 µg/l	BL dodavatele
Microorganisms in sewage treatment	2.4 mg/l	BL dodavatele
Soil (agricultural)	212 mg/kg	BL dodavatele

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Route of exposure	Value	Source
Freshwater environment	0.0022 mg/l	BL dodavatele
Marine water	0.00022 mg/l	BL dodavatele
Freshwater sediment	1.05 mg/kg	BL dodavatele
Sea sediments	0.11 mg/kg	BL dodavatele
Soil (agricultural)	0.21 mg/kg	BL dodavatele
Microorganisms in sewage treatment	1 mg/l	BL dodavatele
Water (intermittent release)	0.009 mg/l	

Technical xylene (mixed with ethylbenzene)

Route of exposure	Value	Source
Freshwater environment	0.327 mg/l	BL dodavatele
Water (intermittent release)	0.327 mg/l	BL dodavatele
Freshwater sediment	12.46 mg/kg of dry substance of sediment	BL dodavatele
Marine water	0.327 mg/l	BL dodavatele
Sea sediments	12.46 mg/kg of dry substance of sediment	BL dodavatele
Microorganisms in sewage treatment	6.58 mg/l	BL dodavatele
Soil (agricultural)	2.31 mg/kg of dry substance of soil	BL dodavatele

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titanium dioxide		
Route of exposure	Value	Source
Freshwater environment	0.127 mg/l	BL dodavatele
Marine water	1 mg/l	BL dodavatele
Water (intermittent release)	0.61 mg/l	BL dodavatele
Freshwater sediment	1000 mg/kg	BL dodavatele
Sea sediments	100 mg/kg	BL dodavatele
Soil (agricultural)	100 mg/kg	BL dodavatele
Microorganisms in sewage treatment	100 mg/l	BL dodavatele
Food chain	1667 mg/kg	BL dodavatele

trizinc bis(orthophosphate)		
Route of exposure	Value	Source
Freshwater environment	20.6 µg/l	BL dodavatele
Marine water	6.1 µg/l	BL dodavatele
Microorganisms in sewage treatment	100 µg/l	BL dodavatele
Freshwater sediment	117.8 mg/kg of dry substance of sediment	BL dodavatele
Sea sediments	56.5 mg/kg of dry substance of sediment	BL dodavatele
Soil (agricultural)	35.6 mg/kg of dry substance of soil	BL dodavatele

zinc oxide		
Route of exposure	Value	Source
Freshwater environment	20.6 µg/l	BL dodavatele
Marine water	6.1 µg/l	BL dodavatele
Microorganisms in sewage treatment	100 µg/l	BL dodavatele
Freshwater sediment	117.8 mg/kg of dry substance of sediment	BL dodavatele
Sea sediments	56.5 mg/kg of dry substance of sediment	BL dodavatele
Soil (agricultural)	35.6 mg/kg of dry substance of soil	BL dodavatele

8.2. Exposure controls

Take off contaminated clothing and wash before reuse. 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. 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 (EN 374). Glove material: Nitrile rubber (EN 374). Recommended material thickness: min. 0.4 mm. Penetration time of the glove material ≥ 480 minutes (EN 374). No tests have been carried out, the resistance of the gloves must be tested before use. Find out the exact penetration time of the material from the glove manufacturer and observe it. 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.

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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

Not available.

Environmental exposure controls

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

More information

Exposure scenario is attached to the Safety Data Sheet.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless, white, black, red, brown, blue, silver, grey, green, yellow, mixture containing generic product identifier "colorant", by shades
Odour	after organic solvents
Melting point/freezing point	data not available
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	-66 °C (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	<-90 °C (BL dodavatele)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	-60 °C (ECHA)
aluminium powder (stabilised) (CAS: 7429-90-5)	660 °C (ECHA)
butan-2-ol (CAS: 78-92-2)	-114.7 °C (ECHA)
C.I. PIGMENT Red 254 (CAS: 84632-65-5)	>300 °C (BL dodavatele)
carbon black (CAS: 1333-86-4)	3652-3697 °C (BL dodavatele)
diiron trioxide (CAS: 1309-37-1)	>1000 °C (BL dodavatele)
Hydrocarbons, C9, aromatic	<-30 °C (BL dodavatele)
Iron hydroxide oxide yellow (CAS: 51274-00-1)	>1000 °C (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	51-53 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	-78 °C (BL dodavatele)
n-butyl acrylate (CAS: 141-32-2)	-64.6 °C (ECHA)
Phenol, methylstyrenated (CAS: 68512-30-1)	<0 °C (BL dodavatele)
Silica, amorphous (CAS: 7631-86-9)	1700 °C (BL dodavatele)
talc (Mg ₃ H ₂ (SiO ₃) ₄) (CAS: 14807-96-6)	>1300 °C (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	-94.96-13.2 °C (BL dodavatele)
titanium dioxide (CAS: 13463-67-7)	>1560 °C (BL dodavatele)
trizinc bis(orthophosphate) (CAS: 7779-90-0)	912 °C (BL dodavatele)
zinc oxide (CAS: 1314-13-2)	>1000 °C (BL dodavatele)
Boiling point or initial boiling point and boiling range	data not available
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	145.8 °C (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	108 °C (BL dodavatele)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	310 °C (ECHA)
aluminium powder (stabilised) (CAS: 7429-90-5)	2450 °C (ECHA)
butan-2-ol (CAS: 78-92-2)	99.5 °C (ECHA)
Hydrocarbons, C9, aromatic	140-200 °C (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	202 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	124-126.5 °C (BL dodavatele)
n-butyl acrylate (CAS: 141-32-2)	147 °C (ECHA)
Phenol, methylstyrenated (CAS: 68512-30-1)	>300 °C (BL dodavatele)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (CAS: 1065336-91-5)	>300 °C (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	136.2-144.5 °C (BL dodavatele)

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titanium dioxide (CAS: 13463-67-7)	3000 °C (BL dodavatele)
Flammability	Flammable liquid of risk class II (ČSN 65 0201)
limestone (CAS: 1317-65-3)	non-inflammable (10 mg/l při 20°C, 15 mg/l při 25°C)
n-butyl acetate (CAS: 123-86-4)	inflammable (odvozeno od bodu vzplanutí)
Technical xylene (mixed with ethylbenzene)	inflammable (BL dodavatele)
trizinc bis(orthophosphate) (CAS: 7779-90-0)	Produkt není hořlavý. nehořlavý (BL dodavatele)
Lower and upper explosion limit	
bottom	0.6 % (for hydrocarbons, C10, aromatic, >1% naphthalene)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	1.5 % (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	1.7 % (BL dodavatele)
Hydrocarbons, C9, aromatic	0.7 % (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	1.4 % (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	1.2 % (literatura)
Technical xylene (mixed with ethylbenzene)	0.8 % (BL dodavatele)
upper	11.3 % (for butan-2-ol)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	7.0 % (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	10.9 % (BL dodavatele)
Hydrocarbons, C9, aromatic	7 % (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	7.1 % (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	7.6 % (literatura)
Technical xylene (mixed with ethylbenzene)	7 % (BL dodavatele)
Flash point	27 °C (PND 67 3015)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	45.5 °C (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	31 °C (BL dodavatele)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	150.5 °C (ECHA)
carbon black (CAS: 1333-86-4)	>600 °C (BL dodavatele)
Hydrocarbons, C9, aromatic	>35 °C (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	103 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	27 °C (BL dodavatele)
n-butyl acrylate (CAS: 141-32-2)	37 °C (ECHA)
Phenol, methylstyrenated (CAS: 68512-30-1)	>150 °C (BL dodavatele)
prop-1-en-2-ylbenzene; styrene (CAS: 9011-11-4)	>250 °C (BL dodavatele)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (CAS: 1065336-91-5)	209.5 °C (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	18-32 °C (BL dodavatele)
Auto-ignition temperature	data not available
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	333 °C (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	400 °C (BL dodavatele)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	430 °C (ECHA)
carbon black (CAS: 1333-86-4)	>140 °C (BL dodavatele)
Hydrocarbons, C9, aromatic	>400 °C (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	475 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	415 °C (BL dodavatele)
n-butyl acrylate (CAS: 141-32-2)	275 °C (ECHA)
Phenol, methylstyrenated (CAS: 68512-30-1)	>385 °C (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	432-528 °C (BL dodavatele)
Decomposition temperature	data not available
Iron hydroxide oxide yellow (CAS: 51274-00-1)	180 °C (BL dodavatele)
limestone (CAS: 1317-65-3)	>600 °C (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	>200 °C (BL dodavatele)
talc (Mg3H2(SiO3)4) (CAS: 14807-96-6)	>1000 °C (BL dodavatele)

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pH	non-soluble (in water)
2-methylpropan-1-ol (CAS: 78-83-1)	7 (undiluted at 20 °C) (BL dodavatele)
C.I. PIGMENT Red 254 (CAS: 84632-65-5)	6.5-9.5 (5% solution) (BL dodavatele)
carbon black (CAS: 1333-86-4)	6-11 (3% solution) (BL dodavatele)
diiron trioxide (CAS: 1309-37-1)	5-8 (5% solution) (BL dodavatele)
Iron hydroxide oxide yellow (CAS: 51274-00-1)	4.5-7.5 (0.005% solution) (BL dodavatele)
limestone (CAS: 1317-65-3)	8.5-10.5 (10% solution at 20 °C) (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	0.8 (20% solution) (BL dodavatele)
talc (Mg ₃ H ₂ (SiO ₃) ₄) (CAS: 14807-96-6)	9-9.5 (10% solution) (BL dodavatele)
trizinc bis(orthophosphate) (CAS: 7779-90-0)	6-8 (10% solution) (BL dodavatele)
zinc oxide (CAS: 1314-13-2)	6.72-6.75 (undiluted at 20 °C) (BL dodavatele)
Kinematic viscosity	>20.5 mm ² /s at 40 °C
	data not available
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	1.23 mm ² /s at 40 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	0.83 mm ² /s at 20 °C (BL dodavatele)
Solubility in water	not miscible
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	198 g/l při 20°C (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	70 g/l (20 °C) (BL dodavatele)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	15 mg/l při 23°C (ECHA)
aluminium powder (stabilised) (CAS: 7429-90-5)	20 µg/l při 20°C (ECHA)
butan-2-ol (CAS: 78-92-2)	181 g/l při 25°C (ECHA)
C.I. PIGMENT Red 254 (CAS: 84632-65-5)	<0.499 mg/l (BL dodavatele)
Iron hydroxide oxide yellow (CAS: 51274-00-1)	insoluble (BL dodavatele)
limestone (CAS: 1317-65-3)	almost insoluble (BL dodavatele (10 mg/l při 20°C, 15 mg/l při 25°C))
n-butyl acetate (CAS: 123-86-4)	5.3 g/l při 20 °C (pH 6) (BL dodavatele)
n-butyl acrylate (CAS: 141-32-2)	1.7 g/l při 20°C (ECHA)
Phenol, methylstyrenated (CAS: 68512-30-1)	Immiscible (BL dodavatele)
prop-1-en-2-ylbenzene; styrene (CAS: 9011-11-4)	insoluble (BL dodavatele)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (CAS: 1065336-91-5)	21.5-29.8 mg/l (21 °C) (BL dodavatele)
Silica, amorphous (CAS: 7631-86-9)	>1 mg/l (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	146-190.7 mg/l při 25 °C (BL dodavatele)
titanium dioxide (CAS: 13463-67-7)	soluble (BL dodavatele)
trizinc bis(orthophosphate) (CAS: 7779-90-0)	<0.01 % (nerozpustný) (BL dodavatele)
zinc oxide (CAS: 1314-13-2)	2.9 mg/l (BL dodavatele)
Partition coefficient n-octanol/water (log value)	LogPow 0.88 - 6 (range of substances contained)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	1.2 (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	1 (BL dodavatele)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	4.75 (ECHA)
C.I. PIGMENT Red 254 (CAS: 84632-65-5)	3 (BL dodavatele)
n-butyl acrylate (CAS: 141-32-2)	2.38 (ECHA)
Technical xylene (mixed with ethylbenzene)	3.12-3.2 (BL dodavatele)
Vapour pressure	0.13 hPa to 21 hPa at 20 °C (range of substances contained)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	3.60 at 20 °C (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	16 hPa at 20 °C (BL dodavatele)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	0.00063 hPa at 23 °C (ECHA)
aluminium powder (stabilised) (CAS: 7429-90-5)	0.13-1300 Pa at 974 °C (ECHA)
Hydrocarbons, C ₉ , aromatic	<1 kPa at 20 °C (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	1.33 hPa at 44 °C (BL dodavatele)

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n-butyl acetate (CAS: 123-86-4)	12-21 at 20 °C (literatura)
n-butyl acrylate (CAS: 141-32-2)	5 hPa at 22.2 °C (ECHA)
Phenol, methylstyrenated (CAS: 68512-30-1)	1 Pa at 20 °C (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	6.50-9.44 hPa at 20 °C (BL dodavatele)
trizinc bis(orthophosphate) (CAS: 7779-90-0)	<1 hPa (BL dodavatele)
Density and/or relative density	
Density	1.2-1.38 g/cm ³ at 23 °C (manufacturer's methodology B5/TD1-5 (ČSN EN ISO 2811-2))
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	0.967 g/cm ³ at 20 °C (BL dodavatele)
2-methylpropan-1-ol (CAS: 78-83-1)	0.8017 g/cm ³ at 20 °C (BL dodavatele)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9)	1.058 g/cm ³ at 20 °C (ECHA)
aluminium powder (stabilised) (CAS: 7429-90-5)	2.7 g/cm ³ at 20 °C (ECHA)
butan-2-ol (CAS: 78-92-2)	0.81 g/cm ³ at 20 °C (ECHA)
C.I. PIGMENT Red 254 (CAS: 84632-65-5)	1.58 g/cm ³ at 20 °C (BL dodavatele)
carbon black (CAS: 1333-86-4)	1.7-1.9 g/cm ³ at 20 °C (BL dodavatele)
Hydrocarbons, C9, aromatic	0.801-0.951 g/cm ³ at 15 °C (BL dodavatele)
Iron hydroxide oxide yellow (CAS: 51274-00-1)	4.1 g/cm ³ at 20 °C (BL dodavatele)
limestone (CAS: 1317-65-3)	2.4-2.9 g/cm ³ (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	1.32 g/cm ³ at 55 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	0.8812 g/cm ³ at 20 °C (BL dodavatele)
n-butyl acrylate (CAS: 141-32-2)	0.9 g/cm ³ at 20 °C (ECHA)
Phenol, methylstyrenated (CAS: 68512-30-1)	1.01-1.05 g/cm ³ at 20 °C (BL dodavatele)
prop-1-en-2-ylbenzene; styrene (CAS: 9011-11-4)	1.05-1.07 g/cm ³ at 20 °C (BL dodavatele)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (CAS: 1065336-91-5)	0.993 g/cm ³ at 20 °C (BL dodavatele)
Silica, amorphous (CAS: 7631-86-9)	2.2 g/cm ³ at 20 °C (BL dodavatele)
talc (Mg ₃ H ₂ (SiO ₃) ₄) (CAS: 14807-96-6)	2.58-2.83 g/cm ³ (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	0.862-0.88 g/cm ³ at 25 °C (BL dodavatele)
trizinc bis(orthophosphate) (CAS: 7779-90-0)	3.3-3.7 g/cm ³ (BL dodavatele)
zinc oxide (CAS: 1314-13-2)	5.68 g/cm ³ at 22 °C (BL dodavatele)
Relative vapour density	data not available
Particle characteristics	data not available
Form	liquid: viscous, free of mechanical impurities, formation of easily mixable sediment is allowed (manufacturer's methodology B5/TD1-17 (ČSN EN ISO 1513))
9.2. Other information	
Ignition temperature	455 °C (PND 65 6212)
Combustion temperature	27 °C (PND 33 0371)
Molar mass	data not available
Hydrocarbons, C9, aromatic	125 g/mol (BL dodavatele)
maleic anhydride (CAS: 108-31-6)	98.06 g/mol (BL dodavatele)
Content of organic solvents (VOC)	0.380 kg/kg (calculation)
Total organic carbon (TOC)	0.283 kg/kg (calculation)
Solid content (dry matter)	57-90 % weight (manufacturer's methodology B5/TD1-12B (ČSN EN ISO 3251))
VOC limit value	cat. A (i) SB: 500 g/l
Max. VOC content in the product in its ready to use condition	473 g/l (calculation)
Flammability - Temperature class: T1 (ČSN 65 0201); Calorific value: ≈ 30 MJ/kg (PND 65 6169).	

SECTION 10: Stability and reactivity

10.1. Reactivity

The mixture is flammable.

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10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

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 the available data, the criteria for classification of the mixture are not met.

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	ATE		714932 mg/kg				Calculation of value	
Dermal	ATE		9013 mg/kg				Calculation of value	
Inhalation (vapor)	ATE		90.11 mg/l				Calculation of value	

2-methoxy-1-methylethyl acetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		6190 mg/kg		Rat (Rattus norvegicus)			BL dodavatele

2-methylpropan-1-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 401	>2000 mg/kg		Rat (Rattus norvegicus)			BL dodavatele
Inhalation (vapor)	LC ₅₀		>18.18 mg/l of air	14 days	Rat (Rattus norvegicus)			BL dodavatele
Dermal	LD ₅₀	OECD 402	>2000 mg/kg		Rabbit			BL dodavatele

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3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		4814 mg/kg bw		Rat			ECHA
Inhalation	LC ₅₀		31 mg/m ³ of air		Rat			ECHA
Dermal	LD ₅₀		7000 mg/kg bw		Rat			ECHA

aluminium powder (stabilised)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		15900 mg/kg bw		Rat			echa
Inhalation	LC ₅₀		888 mg/m ³ of air	4 hours	Rat			echa

butan-2-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		2054-2328 mg/kg bw		Rat			ECHA
Dermal	LD ₅₀		2000 mg/kg bw		Rat			ECHA

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		>5000 mg/kg		Rat (Rattus norvegicus)		Experimentally, Calculation of value	BL dodavatele
Inhalation	LC ₅₀	OECD 403	>2.25 mg/l	4 hours	Rat (Rattus norvegicus)		Experimentally, Calculation of value	BL dodavatele
Dermal	LD ₅₀	OECD 402	>2000 mg/kg		Rat (Rattus norvegicus)		Experimentally, Calculation of value	BL dodavatele

carbon black

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 401	>8000 mg/kg		Rat			BL dodavatele
Inhalation	LC ₀		4.6 mg/m ³	4 hours	Rat			BL dodavatele
Inhalation	NOAEL		1.1 mg/m ³	13 weeks	Rat			BL dodavatele

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diiron trioxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		>5000 mg/kg		Rat			BL dodavat ele

Hydrocarbons, C10, aromatics, >1% naphthalene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 401	>5000 mg/kg		Rat			
Dermal	LD ₅₀	OECD 402	>2000 mg/kg bw		Rabbit			
Inhalation (vapor)	LC ₅₀	OECD 403	4688 mg/m ³		Rat			

Hydrocarbons, C9, aromatic

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 401	>5000 mg/kg		Rat (Rattus norvegicus)			
Dermal	LD ₅₀	OECD 402	>5000 mg/kg		Rabbit			
Inhalation (vapor)	LC ₀	OECD 403	>6193 mg/m ³	4 hours	Rat (Rattus norvegicus)			

Iron hydroxide oxide yellow

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		>10000 mg/kg		Rat			BL dodavat ele
Inhalation (dust/mist)	LD ₅₀		>195 mg/m ³	2 weeks	Rat			BL dodavat ele

limestone

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 425	6450 mg/kg bw		Rat (Rattus norvegicus)			BL dodavat ele

maleic anhydride

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		1090 mg/kg bw		Rat (Rattus norvegicus)			ECHA
Inhalation	LC ₅₀		4.35 mg/l of air	60 minutes	Rat (Rattus norvegicus)			ECHA
Dermal	LD ₅₀		2620 mg/kg bw		Rabbit			ECHA

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n-butyl acetate								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 423	10726 mg/kg bw		Rat (Rattus norvegicus)			BL dodavatele
Dermal	LD ₅₀	OECD 402	14112 mg/kg bw		Rabbit			BL dodavatele
Inhalation	NOAEC	EPA OTS 798.2450	550 ppm	13 weeks	Rat (Rattus norvegicus)			BL dodavatele

n-butyl acrylate								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		3150 mg/kg bw		Rat			echa
Inhalation	LC ₅₀		10-11.2 mg/l of air	4 hours	Rat			echa
Dermal	LD ₅₀		2000 mg/kg bw		Rabbit			echa

Phenol, methylstyrenated								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 423	>2000 mg/kg		Rat (Rattus norvegicus)			BL dodavatele
Dermal	LD ₅₀	OECD 402	>2000 mg/kg		Rat (Rattus norvegicus)			BL dodavatele
Inhalation (aerosols)	LC ₀	OECD 403	4.9 mg/l	4 hours	Rat (Rattus norvegicus)			BL dodavatele

prop-1-en-2-ylbenzene; styrene								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 423	>2000 mg/kg		Rat (Rattus norvegicus)			BL dodavatele

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀	OECD 401	3230 mg/kg		Rat (Rattus norvegicus)			BL dodavatele
Dermal	LD ₅₀	OECD 402	>3170 mg/kg		Rat (Rattus norvegicus)			

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Silica, amorphous								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Dermal	LD ₅₀		>5000 mg/kg		Rabbit			BL dodavat ele
Oral	LD ₅₀	OECD 401	>5000 mg/kg		Rat			BL dodavat ele

Technical xylene (mixed with ethylbenzene)								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		3523 mg/kg bw		Rat (Rattus norvegicus)			BL dodavat ele
Skin	LD ₅₀		12126 mg/kg bw		Rabbit			BL dodavat ele
Inhalation (vapor)	LD ₅₀		6700 ppm		Rat (Rattus norvegicus)			BL dodavat ele

titanium dioxide								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		>5000 mg/kg					BL dodavat ele
Inhalation	LC ₅₀		>6.82 mg/l of air					BL dodavat ele

trizinc bis(orthophosphate)								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		>5000 mg/kg bw/day		Rat			BL dodavat ele
Inhalation	LC ₅₀		>5.7 mg/l	4 hours	Rat			BL dodavat ele

zinc oxide								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD ₅₀		>5000 mg/kg		Rat (Rattus norvegicus)			BL dodavat ele
Inhalation (aerosols)	LC ₅₀		>5.7 mg/l	4 hours	Rat (Rattus norvegicus)			BL dodavat ele

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zinc oxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Dermal	LD ₅₀		>2000 mg/kg bw		Rat (Rattus norvegicus)			BL dodavatele

Skin corrosion/irritation

Causes skin irritation.

2-methylpropan-1-ol

Route of exposure	Result	Method	Exposure time	Species	Source
	Irritating	OECD 404		Rabbit	BL dodavatele

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Route of exposure	Result	Method	Exposure time	Species	Source
	Not irritating				BL dodavatele

Hydrocarbons, C10, aromatics, >1% naphthalene

Route of exposure	Result	Method	Exposure time	Species	Source
Dermal	Negative	OECD 404			

Hydrocarbons, C9, aromatic

Route of exposure	Result	Method	Exposure time	Species	Source
Dermal	Not irritating, Drying and cracking of the skin	OECD 404			

Phenol, methylstyrenated

Route of exposure	Result	Method	Exposure time	Species	Source
	Irritating	OECD 404		Rabbit	BL dodavatele

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Route of exposure	Result	Method	Exposure time	Species	Source
Dermal	Not irritating			Rabbit	BL dodavatele

talc (Mg3H2(SiO3)4)

Route of exposure	Result	Method	Exposure time	Species	Source
			3 days	Human	výrobce

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Irritation

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Route of exposure	Result	Exposure time	Species	Source
	Not irritating			BL dodavatele

Serious eye damage/irritation

Causes serious eye irritation.

2-methylpropan-1-ol

Route of exposure	Result	Method	Exposure time	Species	Source
Eye	Serious eye damage	OECD 405		Rabbit	BL dodavatele

C.I. PIGMENT Red 254

Route of exposure	Result	Method	Exposure time	Species	Source
	Not irritating				BL dodavatele

Hydrocarbons, C10, aromatics, >1% naphthalene

Route of exposure	Result	Method	Exposure time	Species	Source
Eye	Negative	OECD 405			

Hydrocarbons, C9, aromatic

Route of exposure	Result	Method	Exposure time	Species	Source
Eye	Not irritating	OECD 405		Rabbit	

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Route of exposure	Result	Method	Exposure time	Species	Source
Eye	Not irritating	OECD 405		Rabbit	BL dodavatele

Respiratory or skin sensitisation

May cause an allergic skin reaction.

C.I. PIGMENT Red 254

Route of exposure	Result	Method	Exposure time	Species	Sex	Source
	Not sensitizing			Guinea-pig (Cavia aperea f. porcellus)		BL dodavatele

Hydrocarbons, C10, aromatics, >1% naphthalene

Route of exposure	Result	Method	Exposure time	Species	Sex	Source
Dermal	Negative	OECD 406				

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Hydrocarbons, C9, aromatic

Route of exposure	Result	Method	Exposure time	Species	Sex	Source
Dermal	Not sensitizing	OECD 406		Guinea-pig (Cavia aperea f. porcellus)		

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Route of exposure	Result	Method	Exposure time	Species	Sex	Source
Dermal	Sensitizing			Guinea-pig (Cavia aperea f. porcellus)		BL dodavatele

Sensitization

Phenol, methylstyrenated

Route of exposure	Result	Method	Exposure time	Species	Sex	Source
	Sensitizing	OECD 429		Mouse		BL dodavatele

Germ cell mutagenicity

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

C.I. PIGMENT Red 254

Result	Method	Exposure time	Specific target organ	Species	Sex	Source
Negative						BL dodavatele

Hydrocarbons, C10, aromatics, >1% naphthalene

Result	Method	Exposure time	Specific target organ	Species	Sex	Source
Negative	OECD 471					

Carcinogenicity

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

Technical xylene (mixed with ethylbenzene)

Route of exposure	Parameter	Method	Value	Result	Species	Sex	Source
Inhalation (vapor)	NOAEC	OECD 451	<75 ppm		Rat (Rattus norvegicus)		BL dodavatele

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Reproductive toxicity

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

2-methylpropan-1-ol

Effect	Parameter	Method	Value	Exposure time	Result	Species	Sex	Source
Effects on fertility	NOAEL		7.5 mg/l		Negative	Rat (Rattus norvegicus)		BL dodavate le
Developmental toxicity	NOAEL	OECD 414	10 mg/l		Negative	Rat (Rattus norvegicus)		BL dodavate le

C.I. PIGMENT Red 254

Effect	Parameter	Method	Value	Exposure time	Result	Species	Sex	Source
					Negative			BL dodavate le

Hydrocarbons, C10, aromatics, >1% naphthalene

Effect	Parameter	Method	Value	Exposure time	Result	Species	Sex	Source
		OECD 414			Negative			

Hydrocarbons, C9, aromatic

Effect	Parameter	Method	Value	Exposure time	Result	Species	Sex	Source
Effects on fertility	NOAEC		7500 mg/m ³	6 hours (5 days/week)	Negative	Rat (Rattus norvegicus)	F/M	

n-butyl acetate

Effect	Parameter	Method	Value	Exposure time	Result	Species	Sex	Source
Developmental toxicity	NOAEC	OECD 414	1500 ppm			Rabbit		BL dodavate le
Developmental toxicity	LOAEC	OECD 414	1500 ppm			Rat (Rattus norvegicus)		BL dodavate le
Effects on fertility	LOAEC	OECD 416	2000 ppm	90 days		Rat (Rattus norvegicus)		BL dodavate le

Technical xylene (mixed with ethylbenzene)

Effect	Parameter	Method	Value	Exposure time	Result	Species	Sex	Source
	NOAEC		≥500 ppm			Rat (Rattus norvegicus)		BL dodavate le

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Toxicity for specific target organ - single exposure

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

C.I. PIGMENT Red 254

Route of exposure	Parameter	Value	Result	Species	Sex	Source
			Negative			BL dodavatele

Toxicity for specific target organ - repeated exposure

May cause damage to the central nervous system through prolonged or repeated exposure.

C.I. PIGMENT Red 254

Route of exposure	Parameter	Method	Value	Result	Species	Sex	Source
				Negative			BL dodavatele

Hydrocarbons, C10, aromatics, >1% naphthalene

Route of exposure	Parameter	Method	Value	Result	Species	Sex	Source
Oral		OECD 408		Negative			

Repeated dose toxicity

2-methylpropan-1-ol

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Drinking water	NOAEL	Negative	OECD 408	1450 mg/kg	90 days	Rat (Rattus norvegicus)		BL dodavatele

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Inhalation	NOAEC			240-270 µg/m³		Rat		ECHA
Inhalation	LOAEC			1.05-1.1 µg/m³		Rat		ECHA

aluminium powder (stabilised)

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Oral	NOAEL			200-3225 mg/kg bw/day		Rat		echa
Inhalation	LOAEC			50 mg/m³ of air		Rat		echa

butan-2-ol

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Inhalation	NOAEC			5000 ppm				ECHA

Hydrocarbons, C10, aromatics, >1% naphthalene

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Oral	NOEL			300 mg/kg bw		Rat		ECHA
Inhalation	NOAEC			900 - 1 800 mg/m³ of air		Rat		ECHA

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Hydrocarbons, C9, aromatic

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Oral	NOAEL			600 mg/kg bw/day		Rat (Rattus norvegicus)		echa
Inhalation	NOAEC			900-1800 mg/m ³ of air		Rat (Rattus norvegicus)		echa

maleic anhydride

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Oral	NOAEL			10 mg/kg bw/day		Rat (Rattus norvegicus)		ECHA
Inhalation	NOAEC			3.3 mg/m ³ of air		Rat (Rattus norvegicus)		ECHA

n-butyl acrylate

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Oral	NOAEL			84-111 mg/kg bw/day		Rat		echa
Inhalation	NOAEC			110-570 mg/m ³ of air		Rat		echa

Phenol, methylstyrenated

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Dermal	NOAEL		OECD 410	1000 mg/kg bw/day	28 days	Rat (Rattus norvegicus)		BL dodavatel e

Technical xylene (mixed with ethylbenzene)

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Oral	NOAEL			250 mg/kg bw/day		Rat (Rattus norvegicus)		BL dodavatel e
Inhalation	NOAEC			≥810 ppm		Dog		BL dodavatel e

trizinc bis(orthophosphate)

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Oral	NOAEL			31.52 mg/kg bw/day		Rat		echa

zinc oxide

Route of exposure	Parameter	Result	Method	Value	Exposure time	Species	Sex	Source
Oral	NOAEL			31.52 mg/kg bw/day		Rat (Rattus norvegicus)		echa
Inhalation	NOAEL			1.5 mg/m ³ of air		Rat (Rattus norvegicus)		echa
Dermal	LOAEL			75 mg/kg bw/day		Rat (Rattus norvegicus)		echa

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Aspiration hazard

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

11.2. Information on other hazards

Endocrine disrupting properties

Based on the available data, the criteria for classification of the mixture are not met. Does not contain any components that may cause endocrine disruption for humans.

Other information

not available

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

Acute toxicity

2-methoxy-1-methylethyl acetate						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		180 mg/l	96 hours	Algae (Selenastrum capricornutum)		BL dodavatel e
EC ₅₀		500 mg/l	48 hours	Daphnia (Daphnia magna)		BL dodavatel e

2-methylpropan-1-ol						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		>100 mg/l	96 hours	Fish (Pimephales promelas)		BL dodavatel e
EC ₅₀		>100 mg/l	48 hours	Daphnia (Daphnia pulex)		BL dodavatel e
EC ₅₀	OECD 201	>100 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)		BL dodavatel e
EC ₁₀	OECD 209	>100 mg/l	16 hours	Bacteria (Pseudomonas putida)		BL dodavatel e

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		72-208 mg/l	4 days	Fish (Oncorhynchus mykiss)		ECHA
EC ₅₀		27 mg/l	48 hours	Aquatic invertebrates		ECHA
LC ₅₀		4 mg/l	4 days	Aquatic invertebrates		ECHA
EC ₅₀		70 mg/l	72 hours	Algae (Selenastrum capricornutum)		ECHA

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3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Parameter	Method	Value	Exposure time	Species	Environment	Source
NOEC		4.4 mg/l	72 hours	Algae (Selenastrum capricornutum)		ECHA
EC ₅₀		263 mg/l	3 hours	Microorganisms (Photobacterium phosphoreum)		ECHA
NOEC		106 mg/l	3 hours	Microorganisms (Photobacterium phosphoreum)		ECHA

aluminium powder (stabilised)

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		430-3910 µg/l	16 days	Fish (Oncorhynchus mykiss)		echa
EC ₅₀		1.5-2.56 mg/l	48 hours	Aquatic invertebrates		echa
EC ₅₀		5.4-570 µg/l	96 hours	Algae and other aquatic plants		echa

butan-2-ol

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		2993 g/l	4 days	Fish (Oncorhynchus mykiss)		ECHA
EC ₅₀		308 mg/l	48 hours	Aquatic invertebrates		ECHA
NOEC		68 mg/l	48 hours	Aquatic invertebrates		ECHA
EC ₅₀		2029 g/l	4 days	Algae (Selenastrum capricornutum)		ECHA
NOEC		1.24 g/l	4 days	Algae (Selenastrum capricornutum)		ECHA
NOEC		500 mg/l		Microorganisms (Photobacterium phosphoreum)		ECHA

C.I. PIGMENT Red 254

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀	OECD 203	>100 mg/l	96 hours	Fish (Branchydanio rerio)		BL dodavatel e
EC ₅₀	OECD 202	>100 mg/l	24 hours	Daphnia (Daphnia magna)		BL dodavatel e
EC ₅₀	OECD 201	>100 mg/l	72 hours	Algae (Desmodesmus subspicatus)		BL dodavatel e

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Parameter	Method	Value	Exposure time	Species	Environment	Source
EC ₂₀		>100 mg/l	3 hours	Microorganisms	Activated sludge	BL dodavatel e
EC ₀	OECD 208	>1000 mg/kg	15 days	Higher plants (Lolium perenne)		BL dodavatel e

carbon black

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀	OECD 203	>1000 mg/l	96 hours	Fish (Branchydanio rerio)		BL dodavatel e
EC ₅₀	OECD 202	>5600 mg/l	24 hours	Daphnia (Daphnia magna)		BL dodavatel e
EC ₅₀		>10000 mg/l	72 hours	Algae (Scenedesmus subspicatus)		BL dodavatel e
EC ₀		≥800 mg/l	3 hours	Microorganisms	Activated sludge	BL dodavatel e

diiron trioxide

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		>1000 mg/l	48 hours	Fish (Leuciscus idus)		BL dodavatel e

Hydrocarbons, C10, aromatics, >1% naphthalene

Parameter	Method	Value	Exposure time	Species	Environment	Source
LL ₅₀		2-5 mg/l	96 hours	Fish (Oncorhynchus mykiss)		
EL ₅₀		3-10 mg/l	48 hours	Daphnia (Daphnia magna)		
NOELR		1 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)		
EL ₅₀		1-3 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)		

Hydrocarbons, C9, aromatic

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀	OECD 203	9.2 mg/l	96 hours	Fish (Oncorhynchus mykiss)	Fresh water	
EC ₅₀	OECD 202	3.2 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	

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Hydrocarbons, C9, aromatic

Parameter	Method	Value	Exposure time	Species	Environment	Source
EC ₅₀	OECD 201	2.9 mg/l	72 hours	Algae and other aquatic plants (Pseudokirchneriella subcapitata)	Fresh water	
NOEC	OECD 201	0.07 mg/l	72 hours	Algae and other aquatic plants (Pseudokirchneriella subcapitata)	Fresh water	

Iron hydroxide oxide yellow

Parameter	Method	Value	Exposure time	Species	Environment	Source
EC ₅₀		>10000 mg/l	3 hours	Bacteria (Salmonella typhimurium)	Fresh water	BL dodavatele
EC ₅₀	OECD 202	>100 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	BL dodavatele
LC ₀	OECD 203	>1000000 mg/l	96 hours	Fish (Oncorhynchus mykiss)	Fresh water	BL dodavatele

limestone

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		>10000 mg/l	96 hours	Fish (Oncorhynchus mykiss)		BL dodavatele
LC ₅₀		>1000 mg/l	48 hours	Daphnia (Daphnia magna)		BL dodavatele
EC ₅₀		>200 mg/l	72 hours	Algae (Desmodesmus subspicatus)		BL dodavatele

maleic anhydride

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		75 mg/l	96 hours	Fish (Oncorhynchus mykiss)		ECHA
EC ₅₀		42.81 mg/l	48 hours	Aquatic invertebrates		ECHA
EC ₅₀		74.35 mg/l	72 hours	Algae and other aquatic plants		ECHA
EC ₅₀		12.5 mg/l	15 minutes	Microorganisms (Photobacterium phosphoreum)		ECHA

n-butyl acetate

Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀	OECD 203	18 mg/l	96 hours	Algae (Pimephales promelas)		BL dodavatele

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n-butyl acetate						
Parameter	Method	Value	Exposure time	Species	Environment	Source
EC ₅₀	OECD 203	44 mg/l	48 hours	Crustaceans (Daphnia magna)		BL dodavatel e
EC ₅₀	OECD 203	674.7 mg/l	72 hours	Algae and other aquatic plants (Desmodesmus subspicatus)		BL dodavatel e
NOEC	OECD 203	200 mg/l	72 hours	Algae and other aquatic plants (Desmodesmus subspicatus)		BL dodavatel e

n-butyl acrylate						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		1.1-56.2 mg/l	96 hours	Fish (Oncorhynchus mykiss)		echa
EC ₅₀		1.3-19 mg/l	48 hours	Aquatic invertebrates		echa
EC ₅₀		2.65-11 mg/l	96 hours	Algae and other aquatic plants		echa
EC ₅₀		1 g/l	30 minutes	Microorganisms (Photobacterium phosphoreum)		echa

Phenol, methylstyrenated						
Parameter	Method	Value	Exposure time	Species	Environment	Source
EL ₅₀	OECD 202	14-51 mg/l	48 hours	Daphnia (Daphnia magna)		BL dodavatel e
ErL ₅₀	OECD 201	15 mg/l	72 hours	Algae (Selenastrum capricornutum)		BL dodavatel e
LL ₅₀	OECD 203	25.8 mg/l	96 hours	Fish (Oncorhynchus mykiss)		BL dodavatel e

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀	OECD 203	0.9 mg/l	96 hours	Fish (Brachydanio rerio)		BL dodavatel e
EC ₅₀	OECD 201	1.68 mg/l	72 hours	Algae and other aquatic plants (Desmodesmus subspicatus)		BL dodavatel e
EC ₂₀	OECD 209	100 mg/l	3 hours	Microorganisms	Activated sludge	BL dodavatel e

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Silica, amorphous						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀	OECD 203	>10000 mg/l	96 hours	Fish (Danio rerio)		BL dodavateľ
EC ₅₀	OECD 202	>1000 mg/l	24 hours	Daphnia (Daphnia magna)		BL dodavateľ
EC ₅₀		120 mg/l	48 hours	Algae (Selenastrum capricornutum)		BL dodavateľ
NOEC		60 mg/l	48 hours	Algae (Selenastrum capricornutum)		BL dodavateľ

talc (Mg ₃ H ₂ (SiO ₃) ₄)						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		>100000 mg/l	24 hours	Fish (Oncorhynchus mykiss)		výrobce
LC ₅₀		94983.781 mg/kg	48 hours	Crustaceans		výrobce
LC ₅₀		48545.539 mg/l		Algae (Selenastrum capricornutum)		výrobce

Technical xylene (mixed with ethylbenzene)						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀	OECD 203	8.4 mg/l	96 hours	Fish (Oncorhynchus mykiss)		BL dodavateľ
IC ₅₀	OECD 202	4.7 mg/l	24 hours	Invertebrates		BL dodavateľ
NOEC	OECD 201	0.44 mg/l	73 hours	Algae (Pseudokirchneriella subcapitata)		BL dodavateľ
EC ₅₀	OECD 201	4.36 mg/l	73 hours	Algae (Pseudokirchneriella subcapitata)		BL dodavateľ

titanium dioxide						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		>100 mg/l	96 hours	Fish (Oncorhynchus mykiss)	Fresh water	BL dodavateľ
LC ₅₀		>1000 mg/l	96 hours	Fish (Pimephales promelas)	Fresh water	BL dodavateľ
LC ₅₀	OECD 202	>100 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	BL dodavateľ

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trizinc bis(orthophosphate)						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		112 µg/l	96 days	Fish		BL dodavatele
EC ₅₀		0.413 mg/l	48 hours	Daphnia (Ceriodaphnia dubia)		BL dodavatele
ErC ₅₀		0.136 mg/l	72 hours	Algae (Selenastrum capricornutum)		BL dodavatele
EC ₅₀		5.2 mg/l	3 hours	Microorganisms (Photobacterium phosphoreum)		ECHA

zinc oxide						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀		1.793 mg/l	96 hours	Fish (Danio rerio)		BL dodavatele
EC ₅₀		0.86 mg/l	48 hours	Daphnia (Daphnia magna)		BL dodavatele
IC ₅₀		136 µg/l	72 hours	Algae (Pseudokirchneriella subcapitata)		BL dodavatele
NOEC		24 µg/l	72 hours	Algae (Pseudokirchneriella subcapitata)		BL dodavatele
NOEC		5.6 µg/l	24 days	Crustaceans (Holmesimysis costata)		BL dodavatele

Chronic toxicity

2-methylpropan-1-ol						
Parameter	Method	Value	Exposure time	Species	Environment	Source
NOEC		20 mg/l	21 days	Daphnia (Daphnia magna)		BL dodavatele

C.I. PIGMENT Red 254						
Parameter	Method	Value	Exposure time	Species	Environment	Source
LC ₅₀	OECD 202	>1000 mg/kg	14 days	Microorganisms (Eisenia foetida)		BL dodavatele

Hydrocarbons, C10, aromatics, >1% naphthalene						
Parameter	Method	Value	Exposure time	Species	Environment	Source
NOELR		0.487 mg/l	28 days	Fish (Oncorhynchus mykiss)		ECHA

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n-butyl acetate

Parameter	Method	Value	Exposure time	Species	Environment	Source
NOEC	OECD 211	23 mg/l	21 hours	Crustaceans (Daphnia magna)		BL dodavatele

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Parameter	Method	Value	Exposure time	Species	Environment	Source
NOEC	OECD 211	1 mg/l	21 days	Daphnia (Daphnia magna)		BL dodavatele

zinc oxide

Parameter	Method	Value	Exposure time	Species	Environment	Source
NOEC		0.056-0.061 mg/l	116 days	Fish (Salmo trutta)		BL dodavatele

12.2. Persistence and degradability

Data for the mixture are not available.

Half-life time

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Route of exposure	Value	Value determination	Source
Drinking water	51 days		BL dodavatele

Biodegradability

2-methoxy-1-methylethyl acetate

Parameter	Method	Value	Exposure time	Environment	Result	Source
	OECD 301F	83 %			Easily biodegradable	BL dodavatele

2-methylpropan-1-ol

Parameter	Method	Value	Exposure time	Environment	Result	Source
	OECD 301D	>70 %	28 days		Easily biodegradable	BL dodavatele

Hydrocarbons, C10, aromatics, >1% naphthalene

Parameter	Method	Value	Exposure time	Environment	Result	Source
		58 %	28 days	Fresh water	Easily biodegradable	

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Hydrocarbons, C9, aromatic

Parameter	Method	Value	Exposure time	Environment	Result	Source
Biologická odbouratelnost - aerobní	OECD 301F	78 %	28 days		Easily biodegradable	

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Parameter	Method	Value	Exposure time	Environment	Result	Source
					Hardly biodegradable	BL dodavatele
DOC	OECD 301F	38 %	28 days			BL dodavatele

12.3. Bioaccumulative potential

Data for the mixture are not available.

2-methylpropan-1-ol

Parameter	Value	Exposure time	Species	Temperature [°C]	Source
Log Pow	1			25°C	BL dodavatele

Phenol, methylstyrenated

Parameter	Value	Exposure time	Species	Temperature [°C]	Source
Log Pow	3.6<6.3				BL dodavatele

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Parameter	Value	Exposure time	Species	Temperature [°C]	Source
BCF	<9.7	8 days	Fish (Cyprinus carpio)		BL dodavatele
Log Koc	5.31 mg/kg				BL dodavatele

12.4. Mobility in soil

Based on the available data, the criteria for classification of the mixture are not met. Does not contain any PMT or vPvM components.

2-methylpropan-1-ol

Parameter	Value	Result	Source
Koc	2.1	High	BL dodavatele

Phenol, methylstyrenated

Parameter	Value	Result	Source
Log Kow	3.2<5.9		BL dodavatele

12.5. Results of PBT and vPvB assessment

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Based on the available data, the criteria for classification of the mixture are not met. Does not contain any PBT or vPvB components.

12.6. Endocrine disrupting properties

Based on the available data, the criteria for classification of the mixture are not met. Does not contain any components that may cause endocrine disruption in the environment.

12.7. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. 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

08 01 11* waste paint and varnish containing organic solvents or other 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 1263

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class(es)

3 Flammable liquids

14.4. Packing group

III

14.5. Environmental hazards

Yes.

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

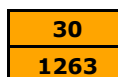
Additional information

Hazard identification No.

UN number

Classification code

Safety signs



F1

3+ hazardous for the environment



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Road transport - ADR

Special provisions	163, 367, 650
Limited quantities	5 L
Excepted quantities	E1

Packaging

Packing instructions	P001, IBC03, LP01, R001
Special packing provisions	PP1
Mixed packing provisions	MP19

Portable tanks and bulk containers

Guidelines	T2
Special provisions	TP1, TP29

ADR tank

Tank code	LGBF
Vehicles for tank carriage	FL
Transport category	3
Tunnel restriction code	(D/E)

Special provision for

packages	V12
operation	S2

Railway transport - RID

Special provisions	163, 367, 650
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Packaging

Packing instructions	P001, IBC03, LP01, R001
Special packing provisions	PP1
Mixed packing provisions	MP19

Portable tanks and bulk containers

Guidelines	T2
Special provisions	TP1, TP29

RID Tanks

Tank code	LGBF
Transport category	3

Special provision for

packages	W12
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Air transport - ICAO/IATA

Packaging instructions for limited amount	Y344
Packaging instructions passenger	355
Cargo packaging instructions	366

Marine transport - IMDG

EmS (emergency plan)	F-E, S-E
MFAG	310

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. Product contains regulated explosives precursor: Making available, introduction, possession and use of those precursors by member of the general public according to Regulation (EU) 2019/1148, Article 5 to 9. 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).

Restrictions pursuant to Annex XVII of Regulation (EC) No. 1907/2006 (REACH), as amended

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3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Restriction	Conditions of restriction
74	1. Shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless: (a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture (s). 2. Shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless: (a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the label information: "As from 24 August 2023 adequate training is required before industrial or professional use". 3. For the purpose of this entry "industrial and professional user(s)" means any worker or self-employed worker handling diisocyanates on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) or supervising these tasks. 4. The training referred to in point (b) of paragraph 1 shall include the instructions for the control of dermal and inhalation exposure to diisocyanates at the workplace without prejudice to any national occupational exposure limit value or other appropriate risk management measures at national level. Such training shall be conducted by an expert on occupational safety and health with competence acquired by relevant vocational training. That training shall cover as a minimum: (a) the training elements in point (a) of paragraph 5 for all industrial and professional use(s). (b) the training elements in points (a) and (b) of paragraph 5 for the following uses: — handling open mixtures at ambient temperature (including foam tunnels); — spraying in a ventilated booth; — application by roller; — application by brush; — application by dipping and pouring; — mechanical post treatment (e.g. cutting) of not fully cured articles which are not warm anymore; — cleaning and waste; — any other uses with similar exposure through the dermal and/or inhalation route; (c) the training elements in points (a), (b) and (c) of paragraph 5 for the following uses: — handling incompletely cured articles (e.g. freshly cured, still warm); — foundry applications; — maintenance and repair that needs access to equipment; — open handling of warm or hot formulations (> 45 °C); — spraying in open air, with limited or only natural ventilation (includes large industry working halls) and spraying with high energy (e.g. foams, elastomers); — and any other uses with similar exposure through the dermal and/or inhalation route. 5. Training elements: (a) general training, including on-line training, on: — chemistry of diisocyanates; — toxicity hazards (including acute toxicity); — exposure to diisocyanates; — occupational exposure limit values; — how sensitisation can develop; — odour as indication of hazard; — importance of volatility for risk; — viscosity, temperature, and molecular weight of diisocyanates; — personal hygiene; — personal protective equipment needed, including practical instructions for its correct use and its limitations; — risk of dermal contact and inhalation exposure; — risk in relation to application process used; — skin and inhalation protection scheme; — ventilation; — cleaning, leakages, maintenance; — discarding empty packaging;

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3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Restriction	Conditions of restriction
	— protection of bystanders; — identification of critical handling stages; — specific national code systems (if applicable); — behaviour-based safety; — certification or documented proof that training has been successfully completed (b) intermediate level training, including on-line training, on: — additional behaviour-based aspects; — maintenance; — management of change; — evaluation of existing safety instructions; — risk in relation to application process used; — certification or documented proof that training has been successfully completed (c) advanced training, including on-line training, on: — any additional certification needed for the specific uses covered; — spraying outside a spraying booth; — open handling of hot or warm formulations (> 45 °C); — certification or documented proof that training has been successfully completed 6. The training shall comply with the provisions set by the Member State in which the industrial or professional user(s) operate. Member States may implement or continue to apply their own national requirements for the use of the substance(s) or mixture(s), as long as the minimum requirements set out in paragraphs 4 and 5 are met. 7. The supplier referred to in point (b) of paragraph 2 shall ensure that the recipient is provided with training material and courses pursuant to paragraphs 4 and 5 in the official language(s) of the Member State(s) where the substance(s) or mixture(s) are supplied. The training shall take into consideration the specificity of the products supplied, including composition, packaging, and design. 8. The employer or self-employed shall document the successful completion of the training referred to in paragraphs 4 and 5. The training shall be renewed at least every five years. 9. Member States shall include in their reports pursuant to Article 117(1) the following information: (a) any established training requirements and other risk management measures related to the industrial and professional uses of diisocyanates foreseen in national law; (b) the number of cases of reported and recognised occupational asthma and occupational respiratory and dermal diseases in relation to diisocyanates; (c) national exposure limits for diisocyanates, if there are any; (d) information about enforcement activities related to this restriction. 10. This restriction shall apply without prejudice to other Union legislation on the protection of safety and health of workers at the workplace.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out (mixture).

SECTION 16: Other information

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

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.
EUH204	Contains isocyanates. May produce an allergic reaction.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312+H332	Harmful in contact with skin or if inhaled.
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.
H331	Toxic if inhaled.

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H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361f	Suspected of damaging fertility.
H372	Causes damage to the respiratory system through prolonged or repeated exposure if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to the central nervous system through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapours/spray.
P264	Wash hands/ stained body parts/ water and soap thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P370+P378	In case of fire: Use foam (alcohol resistant), carbon dioxide, a spray mist, powder to extinguish.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to by handing over to a person authorized to dispose of waste or a site designated by the town.

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

Acute Tox.	Acute toxicity
ADR	Agreement concerning the international carriage of dangerous goods by road
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Asp. Tox.	Aspiration hazard
ATE	Acute toxicity estimate
BCF	Bioconcentration Factor
Carc.	Carcinogenicity
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 ₂₀	Concentration of a substance when it is affected 20 % 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
EL ₅₀	Effective Loading for 50 % of the tested organisms

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EmS	Emergency Response Procedures for Ships Carrying Dangerous Goods
EU	European Union
EuPCS	European Product Categorisation System
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Flam. Sol.	Flammable solid
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC ₅₀	Concentration causing 50% blockade
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 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
LL ₅₀	Lethal Loading for 50 % of tested organisms
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log K _{ow}	Octanol-water partition coefficient
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
NOELR	No Observed Effect Loading Rate
OEL	Occupational Exposure Limits
PBT	Persistent, bioaccumulative and toxic
PMT	Persistent, mobile and toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Repr.	Reproductive toxicity
Resp. Sens.	Respiratory sensitization
RID	Regulation concerning the International Carriage of Dangerous Goods by Rail
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
UN number	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
vPvM	Very persistent and very mobile
Water-react.	Substance or mixture which in contact with water emits flammable gas

Training guidelines

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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)

The version 5.0 replaces the SDS version from Wednesday, 1 March 2023. Changes were made in sections 2, 7, 8, 9, 10, 11, 12, 13, 15 and 16.

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.

Příloha bezpečnostního listu pro výrobek: Rozpouštědlová nátěrová hmota

1. Expoziční scénář: Průmyslové použití

Sektor použití : SU3
 Kategorie chemických výrobků : PC9a
 Dílčí procesy kryté expozičním scénářem : PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC10, PROC13, PROC 15
 Uvolňování výrobku do životního prostředí : ERC4

Základní podmínky omezující riziko pro pracovníky:

Trvání pracovních činností : expozice trvající nejvýše 8 hodin / den
 Koncentrace : práce s nátěrovou hmotou, popř. naředěnou na aplikační hustotu
 Teplota : provádění prací při doporučené teplotě +5 až 25°C
 Obecná opatření na omezení rizik : pracovat v ochranném pracovním oděvu, při kontaktu s nátěrovou hmotou používat ochranné rukavice a ochranné brýle, limitní koncentrace látek obsažených ve směsi jsou uvedeny v oddíle 8 bezpečnostního listu a mohou se lišit v závislosti na typu nátěrové hmoty
 Při práci dodržovat obecné zásady hygieny a bezpečnosti práce.
 Prostředí, kde jsou činnosti prováděny : vnitřní prostředí s odvětráváním.

Doplňující požadavky omezující riziko pro pracovníky vykonávající dílčí pracovní činnosti:

Dílčí pracovní činnost prováděná s výrobkem	Kategorie procesu	Požadované doplňující opatření
Přečerpávání nátěrových hmot z / do zásobníků a zařízení v uzavřeném systému	PROC1 Použití v rámci uzavřeného výrobního procesu	Nevyžadováno
Přečerpávání nátěrových hmot z / do zásobníků a zařízení v nesespecializovaném zařízení s možností expozice osob a životního prostředí	PROC8a přeprava výrobku (napouštění / vypouštění) z / do nádob / kontejnerů v nesespecializovaných zařízeních	Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu).
Přečerpávání nátěrových hmot z / do zásobníků a zařízení v nesespecializovaném zařízení s možností expozice osob a životního prostředí	PROC8b PROC8a přeprava výrobku (napouštění / vypouštění) z / do nádob / kontejnerů v specializovaných zařízeních	Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu).
Míchání, směšování, ředění nátěrových hmot v otevřených zařízeních s možností expozice osob a životního prostředí	PROC5 míchání nebo směšování v dávkových procesech při výrobě směsí	Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu).
Aplikace stříkáním	PROC7 průmyslové nástřikové techniky	Robotický nástřik provádět v uzavřených komorách nebo uzavřených kabinách s odsáváním a zajištěním nezávislého přívodu vzduchu. Ruční nástřik provádějte ve stříkacích kabinách nebo v intenzívně větraných prostorách (5-10 výměn vzduchu za hodinu) za použití polomasky nebo masky s filtrem typu A/P2.
Ruční aplikace nátěrových hmot válečkem, štětkou, stěrkou	PROC10 aplikace válečkem, stěrkou nebo štětkou	Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu).
Nanášení nátěrových hmot poléváním nebo ponořením	PROC13 úprava předmětů máčením a poléváním	Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu).
Volné sušení nátěrového filmu při normální teplotě nebo mírně zvýšené teplotě	PROC4 použití v rámci dávkového a jiného procesu s větší možností expozice	Provádět za místního odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu).
Kontinuální postupy sušení a vytvrzování nátěrových hmot za zvýšené teploty v sušicích tunelech s odsáváním par	PROC2 použití v rámci nepřetržitého chemického výrobního procesu s příležitostnou kontrolovanou expozicí (např. odběr	Nevyžaduje další opatření na omezení rizik.

Dílčí pracovní činnost prováděná s výrobkem	Kategorie procesu	Požadované doplňující opatření
	vzorků)	
Násadové postupy sušení a vytvrzování filmu nátěrových hmot za zvýšené teploty v odsávaných komorách.	PROC3 použití v rámci uzavřeného dávkového procesu výroby směsí	Nevyžaduje další opatření na omezení rizik.
Strojní čištění a promývání uzavřených nádrží, zásobníků a zařízení vybavených odsáváním par	PROC3 použití v rámci uzavřeného dávkového procesu výroby směsí	Nevyžaduje další opatření na omezení rizik.
Ruční čištění malých zásobníků, aplikačních zařízení a nářadí	PROC10 aplikace válečkem, stěrkou nebo štětcem	Lokální odsávání v místě potencionálního úniku emisí nebo dobré větrání (3 – 5 výměn vzduchu za hodinu).
Kontrolní činnosti prováděné s nátěrovými hmotami v laboratořích	PROC15 použití jako laboratorního reagentu (práce s výrobkem v laboratořích)	Dobré větrání (3 – 5 výměn vzduchu za hodinu).
Činnosti s odpady výrobku a odpady znečištěnými výrobkem		Při nebezpečí styku s odpady používat rukavice. Odpady ukládat do uzavíratelných obalů uložených v dobře větraných skladech nebo ve venkovním prostředí. Odpady zajistit proti úniku do vody a půdy.

Doplňující požadavky omezující riziko pro životní prostředí

Omezování emisí do ovzduší	Při nanášení barvy stříkáním odstraňovat ze vzduchu odtahovaného z pracovních prostor úlet aerosolu barvy. Při překročení limitů spotřeby rozpouštědel stanovených vyhláškou využívat postupy rekuperace rozpouštědel z odpadního vzduchu nebo jinými postupy zaručujícími dodržení emisních parametrů stanovených předpisy pro ochranu ovzduší.
Omezování emisí do vody	Barvu a odpady znečištěné barvou skladovat v objektech stavebně zajištěných proti úniku úkapů a havarijních úniků do podzemních a povrchových vod. Při vypouštění odpadních vod dodržovat parametry stanovené pro dané zařízení vodohospodářským orgánem.
Odstraňování odpadů	Odpady barvy a materiálů znečištěných barvou odstraňovat ve spolupráci s osobami oprávněnými k nakládání s odpady.

2. Expoziční scénář: profesionální použití

Sektor použití : SU22
Kategorie chemických výrobků : PC9a
Dílčí procesy kryté expozičním scénářem : PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC 15, PROC19
Uvolňování výrobku do životního prostředí : ERC8a, REC8d

Základní podmínky omezující riziko pro pracovníky:

Trvání pracovních činností : expozice trvající nejvýše 8 hodin / den
Koncentrace : práce s nátěrovou hmotou, popř. naředěnou na aplikační hustotu
Teplota : provádění prací při doporučené teplotě +5 až 25°C s výjimkou sušení nebo vytvrzování filmu za zvýšené teploty
Obecná opatření na omezení rizik : pracovat v ochranném pracovním oděvu, při kontaktu s nátěrovou hmotou používat ochranné rukavice a ochranné brýle, limitní koncentrace látek obsažených ve směsi jsou uvedeny v oddíle 8 bezpečnostního listu a mohou se lišit v závislosti na typu nátěrové hmoty
Při práci dodržovat obecné zásady hygieny a bezpečnosti práce.

Prostředí, kde jsou činnosti prováděny : vnitřní prostředí s odvětráváním, popř. venkovní prostředí.

Doplňující požadavky omezující riziko pro pracovníky vykonávající dílčí pracovní činnosti:

Dílčí pracovní činnost prováděná s výrobkem	Kategorie procesu	Požadované doplňující opatření
Přečerpávání nátěrových hmot z / do zásobníků a zařízení v nespecializovaném zařízení s možností expozice osob a životního prostředí	PROC8a přeprava výrobku (napouštění / vypouštění) z / do nádob / kontejnerů v nespecializovaných zařízeních	Uvnitř budov: Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu). Venku: zajistit úkapy nátěrových hmot.
Míchání, směšování, ředění nátěrových hmot v otevřených zařízeních s možností expozice osob a	PROC5 míchání nebo směšování	Uvnitř: Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu).

Dílčí pracovní činnost prováděná s výrobkem	Kategorie procesu	Požadované doplňující opatření
životního prostředí	v dávkových procesech při výrobě směsí	Venku: činnosti vykonávat nejdéle 4hod./den bez potřeby dalších opatření, nebo používat ochranu dýchacích orgánů s filtrem typu A.
Aplikace stříkáním	PROC11 neprůmyslové nástřikové techniky	Uvnitř: nástřik provádět v uzavřených komorách nebo uzavřených kabinách s odsáváním a zajištěním nezávislého přívodu vzduchu. Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu). Ruční nástřik provádějte ve stříkacích kabinách nebo v intenzivně větraných prostorách (5-10 výměn vzduchu za hodinu) za použití polomasky nebo masky s filtrem typu A/P2. Venku: použití polomasky nebo masky s filtrem typu A/P2.
Ruční aplikace nátěrových hmot válečkem, štětcem, stěrkou	PROC10 aplikace válečkem, stěrkou nebo štětcem	Uvnitř: Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu). Venku: nevyžaduje se další opatření
Nanášení nátěrových hmot poléváním nebo ponořením	PROC13 úprava předmětů máčením a poléváním	Uvnitř: Místní odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu). Venku: používat ochranu dýchacích orgánů s filtrem typu A.
Násadové postupy sušení a vytvrzování filmu nátěrových hmot za zvýšené teploty v odsávaných komorách.	PROC3 použití v rámci uzavřeného dávkového procesu výroby směsí	Nevyžaduje další opatření na omezení rizik.
Volné sušení nátěrového filmu při normální teplotě nebo mírně zvýšené teplotě	PROC4 použití v rámci dávkového a jiného procesu s větší možností expozice	Uvnitř: Provádět za místního odsávání, popř. dobré větrání (3 – 5 výměn vzduchu za hodinu). Venku: nevyžaduje se další opatření
Ruční čištění malých zásobníků, aplikačních zařízení a nářadí	PROC10 aplikace válečkem, stěrkou nebo štětcem	Uvnitř: Lokální odsávání v místě potencionálního úniku emisí nebo dobré větrání (3 – 5 výměn vzduchu za hodinu). Venku: nevyžaduje se další opatření
Činnosti, při kterých dochází k přímému kontaktu s výrobkem bez použití pracovního nástroje	PROC19 ruční mísení s úzkým kontaktem za použití OOPP	Uvnitř: rukavice, místní odsávání nebo dobré větrání Venku: rukavice
Kontrolní činnosti prováděné s nátěrovými hmotami v laboratořích	PROC15 použití jako laboratorního reagentu (práce s výrobkem v laboratořích)	Dobré větrání (3 – 5 výměn vzduchu za hodinu).
Činnosti s odpady výrobku a odpady znečištěnými výrobkem		Při nebezpečí styku s odpady používat rukavice. Odpady ukládat do uzavíratelných obalů uložených v dobře větraných skladech nebo ve venkovním prostředí. Odpady zajistit proti úniku do vody a půdy. Uvnitř: dobré větrání (3 – 5 výměn vzduchu za hodinu).

Doplňující požadavky omezující riziko pro životní prostředí

Omezování emisí do ovzduší	Nejsou požadována žádná zvláštní opatření
Omezování emisí do vody	Barvu a odpady znečištěné barvou skladovat v objektech stavebně zajištěných proti úniku úkapů a havarijních úniků do podzemních a povrchových vod. Při vypouštění odpadních vod dodržovat parametry stanovené pro dané zařízení vodohospodářským orgánem.
Odstraňování odpadů	Odpady barvy a materiálů znečištěných barvou odstraňovat ve spolupráci s osobami oprávněnými k nakládání s odpady.