SAFETY DATA SHEET

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

S1023 penetrating glazing with oil LUSONOL

Creation date	27th June 2017		
Revision date	22nd March 2021	Version	3.0

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

1.1. Product identifier — S1023 penetrating glazing with oil LUSONOL

Substance / mixture	mixture
Number	S1023-A-C....; S1023-Z1C....
UFI	WN1E-DJDX-U005-1460
Other mixture names	S1023 Syntetická napouštěcí lazura LUSONOL

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

Mixture's intended use

LUSONOL S1023 glazing is intended for matt protective penetration coatings of wood exposed to weathering as well as interior wood treatment.

Mixture uses advised against

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

Main intended use

PC-PNT-2 Paints/coatings - Decorative

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 Reg No	CZ49444964
Phone	+420 572527111
E-mail	colorlak@colorlak.cz
Web address	www.colorlak.cz

Competent person responsible for the safety data sheet

Name	Ing. Veronika Chytilová
E-mail	chytilova@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
Asp. Tox. 1, H304
STOT SE 3, H336
STOT RE 2, H373 (central nervous system, respiratory tract (inhalation))
Aquatic Chronic 3, H412

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

Most serious adverse physico-chemical effects

Flammable liquid and vapour.

Most serious adverse effects on human health and the environment

May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. May cause damage to the central nervous system, the respiratory tract (inhalation) through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram

Signal word

Danger

Hazardous substances

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Hazard statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H373	May cause damage to the central nervous system, the respiratory tract (inhalation) through prolonged or repeated exposure.
H412	Harmful 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.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
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

EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH208	Contains 2-butanone oxime, maleic anhydride. May produce an allergic reaction.
EUH066	Repeated exposure may cause skin dryness or cracking.

Density	0,83 - 1,32 g/cm³ at 23 °C (ČSN EN ISO 2811-2)
VOC	0,578 kg/kg
TOC	0,485 kg/kg
Dry matter	15-45 % volume
VOC limit value	cat. A (h) SB: 750 g/l
Max. VOC content in the product in its ready to use condition	585 g/l

Requirements for child-resistant fastenings and tactile warning of danger

Container must carry a tactile warning of danger. Container must be fitted with child-resistant fastening.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

LUSONOL S1023 is a solution of alkyd resins in organic solvents with the addition of drying oils and dispersions of organic and inorganic pigments and 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
EC: 919-857-5 Registration number: 01-2119463258-33	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics	45,5-49	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 EUH066	7
Index: 022-006-00-2 CAS: 13463-67-7 EC: 236-675-5 Registration number: 01-2119489379-17	titanium dioxide	≤10,5	Carc. 2, H351 (inhalation)	2, 3, 4
EC: 919-446-0 Registration number: 01-2119458049-33	hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	7,5-9	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 STOT RE 1, H372 (central nervous system, respiratory tract (inhalation)) Aquatic Chronic 2, H411 EUH066	7
CAS: 1309-37-1 EC: 215-168-2 Registration number: 01-2119457614-35-0000	diiron trioxide	≤3,1	not classified as dangerous	
CAS: 1333-86-4 EC: 215-609-9	carbon black	≤1,5	not classified as dangerous	
CAS: 74336-59-7 EC: 277-823-9 Registration number: 01-2119936828-22-0000	3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one	≤1,1	not classified as dangerous	
Index: 607-195-00-7 CAS: 108-65-6 EC: 203-603-9 Registration number: 01-2119475791-29	2-methoxy-1-methylethyl acetate	<1	Flam. Liq. 3, H226 STOT SE 3, H336	5
CAS: 1302-78-9	Bentonite	≤0,5	not classified as dangerous	
Index: 601-022-00-9 CAS: 1330-20-7 EC: 215-535-7 Registration number: 01-2119488216-32	xylene	≤0,4	Flam. Liq. 3, H226 Acute Tox. 4, H312, H332 Skin Irrit. 2, H315	1, 5
Index: 616-014-00-0 CAS: 96-29-7 EC: 202-496-6 Registration number: 01-2119539477-28	2-butanone oxime	0,1-0,2	Acute Tox. 4, H312 Skin Sens. 1, H317 Eye Dam. 1, H318 Carc. 2, H351	

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 601-023-00-4 CAS: 100-41-4 EC: 202-849-4 Registration number: 01-2119489370-35	ethylbenzene	≤0,12	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs)	5
Index: 615-006-00-4 CAS: 26471-62-5 EC: 247-722-4	m-tolylidene diisocyanate	<0,02	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 2, H330 Resp. Sens. 1, H334 STOT SE 3, H335 Carc. 2, H351 Aquatic Chronic 3, H412 Specific concentration limit: Resp. Sens. 1, H334: C ≥ 0,1 %	1, 6
Index: 607-096-00-9 CAS: 108-31-6 EC: 203-571-6	maleic anhydride	≤0,001	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT RE 1, H372 (respiratory tract (inhalation)) EUH071 Specific concentration limit: Skin Sens. 1A, H317: C ≥ 0,001 %	

Notes

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

2 Note 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.

3 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.

4 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 ≤ 10 µm.

5 Substance with a Union workplace exposure limit.

6 The use of the substance is restricted by Annex XVII of REACH Regulation

7 Substance of unknown or variable composition, complex reaction products or biological materials - UVCB.

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

Do not perform artificial respiration without self-protection (e.g. a mask). 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

Take care of your own safety, do not let the affected person walk! Terminate the exposure immediately; move the affected person to fresh air. Beware of the contaminated clothes. Depending on the situation, call the medical rescue service and ensure medical treatment considering the frequent need of further observation for at least 24 hours.

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.

If swallowed

If the affected person vomits, make sure to prevent inhalation of the vomit (as there is a danger of lung damage after inhalation of these liquids in the airways also in infinitesimal amount). Ensure medical treatment considering the frequent need of further observation for at least 24 hours. Bring an original container with the label and the Safety Data Sheet of the given substance as appropriate.

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

If inhaled

Cough, headache. May cause drowsiness or dizziness.

If on skin

Not expected.

If in eyes

Not expected.

If swallowed

Irritation, nausea.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. Flammable liquid and vapour. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale aerosols.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in flammable or explosive concentrations and concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use non-sparking tools. Use of antistatic clothes and footwear is recommended. Do not inhale aerosols. No smoking. Use only outdoors or in a well-ventilated area. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take action to prevent static discharges. Avoid release to the environment. Dispose of absorbent materials of organic origin (rags, sawdust, paper, etc.) contaminated with S1023 - risk of spontaneous combustion.

7.2. Conditions for safe storage, including any incompatibilities

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

Content	Packaging type	Material of package
0,9 l	can / tin	FE
2,2 l	can / tin	FE
2,5 l	can / tin	FE
3 l	can / tin	FE
8 l	can / tin	FE
18 l	can / tin	FE
30 l	can / tin	FE

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

Storage temperature: +5-25 °C

The specific requirements or rules relating to the substance/mixture

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

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

European Union — **Commission Directive 2000/39/EC**

Substance name (component)	Type	Value	Note
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	OEL 8 hours	275 mg/m³	Skin
	OEL 8 hours	50 ppm	
	OEL 15 minutes	550 mg/m³	
	OEL 15 minutes	100 ppm	
xylene (CAS: 1330-20-7)	OEL 8 hours	221 mg/m³	Skin
	OEL 8 hours	50 ppm	
	OEL 15 minutes	442 mg/m³	
	OEL 15 minutes	100 ppm	
ethylbenzene (CAS: 100-41-4)	OEL 8 hours	442 mg/m³	Skin
	OEL 8 hours	100 ppm	
	OEL 15 minutes	884 mg/m³	

European Union **Commission Directive 2000/39/EC**

Substance name (component)	Type	Value	Note
ethylbenzene (CAS: 100-41-4)	OEL 15 minutes	200 ppm	Skin

DNEL

2-butanone oxime

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	9 mg/m³	Systemic chronic effects	
Workers	Inhalation	3.33 mg/m³	Local chronic effects	
Workers	Dermal	1.3 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	2.5 mg/kg bw/day	Systemic acute effects	
Consumers	Inhalation	2.7 mg/m³	Systemic chronic effects	
Consumers	Inhalation	2 mg/m³	Local chronic effects	
Consumers	Dermal	780 µg/kg	Systemic chronic effects	
Consumers	Dermal	1.5 mg/kg bw/day	Systemic acute effects	

2-methoxy-1-methylethyl acetate

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	275 mg/m³	Systemic chronic effects	
Workers	Dermal	796 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	33 mg/m³	Systemic chronic effects	
Consumers	Dermal	320 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	36 mg/kg bw/day	Systemic chronic effects	

3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	10 mg/m³	Local chronic effects	
Consumers	Inhalation	10 mg/m³	Local chronic effects	

ethylbenzene

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	77 mg/m³	Systemic chronic effects	
Workers	Dermal	180 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	15 mg/m³	Systemic chronic effects	
Consumers	Oral	1.6 mg/kg bw/day	Systemic chronic effects	

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	1500 mg/m³	Systemic chronic effects	
Workers	Dermal	300 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	900 mg/m³	Systemic chronic effects	
Consumers	Dermal	300 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	300 mg/kg bw/day	Systemic chronic effects	

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	330 mg/m³	Systemic chronic effects	
Workers	Dermal	44 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	71 mg/m³	Systemic chronic effects	
Consumers	Dermal	26 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	26 mg/kg bw/day	Systemic chronic effects	

maleic anhydride

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	0.19 mg/m³	Systemic chronic effects	
Workers	Inhalation	0.8 mg/m³	Systemic acute effects	
Consumers	Inhalation	0.05 mg/m³	Systemic chronic effects	
Consumers	Inhalation	0.08 mg/m³	Local chronic effects	
Consumers	Dermal	0.1 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	0.06 mg/kg bw/day	Systemic chronic effects	

titanium dioxide

Workers / consumers	Route of exposure	Value	Effect	Determining method
	Inhalation	10 mg/m³	Local chronic effects	

xylene

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	77 mg/m³	Systemic chronic effects	
Workers	Dermal	180 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	14.8 mg/m³	Systemic chronic effects	
Consumers	Dermal	108 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	1.6 mg/kg bw/day	Systemic chronic effects	

PNEC

2-butanone oxime

Route of exposure	Value	Determining method
Freshwater environment	256 µg/l	
Water (intermittent release)	118 µg/l	

2-butanone oxime

Route of exposure	Value	Determining method
Microorganisms in wastewater treatment plants	177 mg/l	

2-methoxy-1-methylethyl acetate

Route of exposure	Value	Determining method
Freshwater environment	0.635 mg/l	
Seawater	0.0635 mg/l	
Microorganisms in wastewater treatment plants	100 mg/l	
Freshwater sediment	3.29 mg/kg of dry substance of sediment	
Sea sediments	0.329 mg/kg of dry substance of sediment	
Soil (agricultural)	0.29 mg/kg of dry substance of soil	

ethylbenzene

Route of exposure	Value	Determining method
Freshwater environment	100 µg/l	
Seawater	10-100 µg/l	
Water (intermittent release)	100 µg/l	
Microorganisms in wastewater treatment plants	9.6 mg/l	
Freshwater sediment	13.7 mg/kg of dry substance of sediment	
Sea sediments	1.37 mg/kg of dry substance of sediment	
Soil (agricultural)	2.68 mg/kg of dry substance of soil	
Food chain	20 mg/kg of food	

maleic anhydride

Route of exposure	Value	Determining method
Freshwater environment	75 µg/l	
Seawater	7.5 µg/l	
Water (intermittent release)	428.1 µg/l	
Microorganisms in wastewater treatment plants	4.46 mg/l	
Freshwater sediment	60 µg/kg	
Sea sediments	6 µg/kg	
Soil (agricultural)	10 µg/kg	

titanium dioxide

Route of exposure	Value	Determining method
Freshwater environment	0.127 mg/l	
Seawater	1 mg/l	
Water (intermittent release)	0.61 mg/l	
Freshwater sediment	1000 mg/kg	
Sea sediments	100 mg/kg	
Soil (agricultural)	100 mg/kg	
Microorganisms in wastewater treatment plants	100 mg/l	
Food chain	1667 mg/kg	

xylene

Route of exposure	Value	Determining method
Freshwater environment	327 µg/l	
Seawater	327 µg/l	
Water (intermittent release)	327 µg/l	
Microorganisms in wastewater treatment plants	6.58 mg/l	
Freshwater sediment	12.46 mg/kg bw/day	
Sea sediments	12.46 mg/kg bw/day	
Soil (agricultural)	2.31 mg/kg of dry substance of soil	

8.2. Exposure controls

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

Eye/face protection

It is not needed.

Skin protection

Hand protection: Protective gloves resistant to the product. Contaminated skin should be washed thoroughly.

Respiratory protection

Mask with a filter against organic vapours in a poorly ventilated environment.

Thermal hazard

Not available.

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Color	mixture containing generic product identifier ‘colorant’ (select all relevant colours), 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)
butan-1-ol (CAS: 71-36-3)	-90 °C (BL dodavatele)
diiron trioxide (CAS: 1309-37-1)	>1000 °C (BL dodavatele)
hydrocarbons, C10-C13, n-alanes, isolakanes, cyclics, <2% aromatics	<-20 °C (BL dodavatele)
Iron hydroxide oxide (Fe(OH)O) (CAS: 20344-49-4)	1597 °C (BL dodavatele)
Linseed oil (CAS: 8001-26-1)	-20 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	-78 °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)
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)
butan-1-ol (CAS: 71-36-3)	119 °C (BL dodavatele)
hydrocarbons, C10-C13, n-alanes, isolakanes, cyclics, <2% aromatics	160-245 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	124-126,5 °C (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	136,2-144,5 °C (BL dodavatele)
titanium dioxide (CAS: 13463-67-7)	3000 °C (BL dodavatele)
Flammability	Flammable liquid of risk class II (ČSN 65 0201)
n-butyl acetate (CAS: 123-86-4)	hořlavý (odvozeno od bodu vzplanutí)
Technical xylene (mixed with ethylbenzene)	hořlavý (BL dodavatele)

Lower and upper explosion limit	
bottom	0,5 % (for petrols)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	1,5 % (BL dodavatele)
butan-1-ol (CAS: 71-36-3)	1,4 % (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	1,2 % (literatura)
Technical xylene (mixed with ethylbenzene)	0,8 % (BL dodavatele)
upper	6,5 % (for petrols)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	7,0 % (BL dodavatele)
butan-1-ol (CAS: 71-36-3)	11,3 % (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	7,6 % (literatura)
Technical xylene (mixed with ethylbenzene)	7 % (BL dodavatele)
Flash point	28 °C (PND 67 3015)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	45 °C (BL dodavatele)
butan-1-ol (CAS: 71-36-3)	35 °C (BL dodavatele)
hydrocarbons, C10-C13, n-alanes, isolakanes, cyclics, <2% aromatics	>61 °C (BL dodavatele)
Linseed oil (CAS: 8001-26-1)	>300 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	27 °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)
butan-1-ol (CAS: 71-36-3)	355 °C (BL dodavatele)
hydrocarbons, C10-C13, n-alanes, isolakanes, cyclics, <2% aromatics	>200 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	415 °C (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	432-528 °C (BL dodavatele)
Decomposition temperature	data not available
3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one (CAS: 74336-59-7)	320 °C (BL dodavatele)
Iron hydroxide oxide (Fe(OH)O) (CAS: 20344-49-4)	180 °C (BL dodavatele)
pH	non-soluble (in water)
2-[(2-methoxy-4-nitrophenyl)azo]-N-(2-methoxyphenyl)-3-oxobutyramide (CAS: 6358-31-2)	5,5-8,5 (5% solution at 25 °C) (BL dodavatele)
3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one (CAS: 74336-59-7)	5-8 (undiluted) (BL dodavatele)
C.I. pigment Green 7 (CAS: 1328-53-6)	6,5-8,5 (undiluted) (BL dodavatele)
diiron trioxide (CAS: 1309-37-1)	5-8 (5% solution) (BL dodavatele)
Iron hydroxide oxide (Fe(OH)O) (CAS: 20344-49-4)	3,5-8 (5% solution) (BL dodavatele)
Kinematic viscosity	<20,5 mm²/s at 40 °C
Kinematic viscosity	data not available
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	1,23 mm²/s at 40 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	0,83 mm²/s at 20 °C (BL dodavatele)
Viscosity - flow time	Outflow time from a cup with a nozzle of Ø 2 mm: 40-75 s
Solubility in water	not miscible
2-[(2-methoxy-4-nitrophenyl)azo]-N-(2-methoxyphenyl)-3-oxobutyramide (CAS: 6358-31-2)	nerozpustný (BL dodavatele)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	247 g/l (BL dodavatele)
3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one (CAS: 74336-59-7)	nerozpustný (BL dodavatele)
butan-1-ol (CAS: 71-36-3)	75 g/l při 20 °C (BL dodavatele)
C.I. pigment Green 7 (CAS: 1328-53-6)	nerozpustný (BL dodavatele)
Iron hydroxide oxide (Fe(OH)O) (CAS: 20344-49-4)	<0,001 g/l (BL dodavatele)
Linseed oil (CAS: 8001-26-1)	<0,001 g/l (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	5,3 g/l při 20 °C (pH 6) (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	146-190,7 mg/l při 25 °C (BL dodavatele)
titanium dioxide (CAS: 13463-67-7)	<1 µg/L v rozmezí pH 6 až 8 (BL dodavatele)
Partition coefficient n-octanol/water (log value)	logPow 2,1-6 (for petrols)

Vapour pressure	3-12 hPa at 20 °C (for petrols)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	355 at 20 °C (BL dodavatele)
butan-1-ol (CAS: 71-36-3)	10 hPa at 20 °C (BL dodavatele)
hydrocarbons, C10-C13, n-alanes, isolakanes, cyclics, <2% aromatics	<0,1 kPa at 20 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	12-21 at 20 °C (literatura)
Technical xylene (mixed with ethylbenzene)	650-944 Pa (BL dodavatele)
Density and/or relative density	
Density	0,83 - 1,32 g/cm³ at 23 °C (ČSN EN ISO 2811-2)
2-[(2-methoxy-4-nitrophenyl)azo]-N-(2-methoxyphenyl)-3-oxobutyramide (CAS: 6358-31-2)	1,49 g/cm³ at 20 °C (BL dodavatele)
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	0,964 g/cm³ at 25 °C (BL dodavatele)
3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one (CAS: 74336-59-7)	1,77 g/cm³ at 20 °C (BL dodavatele)
butan-1-ol (CAS: 71-36-3)	0,81 g/cm³ at 20 °C (BL dodavatele)
C.I. pigment Green 7 (CAS: 1328-53-6)	2,1 g/cm³ (BL dodavatele)
carbon black (CAS: 1333-86-4)	1,7-1,9 g/cm³ at 20 °C (BL dodavatele)
hydrocarbons, C10-C13, n-alanes, isolakanes, cyclics, <2% aromatics	0,751-0,851 g/cm³ at 15 °C (BL dodavatele)
Iron hydroxide oxide (Fe(OH)O) (CAS: 20344-49-4)	4,26 g/cm³ at 20 °C (BL dodavatele)
Linseed oil (CAS: 8001-26-1)	0,926-0,933 g/cm³ at 20 °C (BL dodavatele)
n-butyl acetate (CAS: 123-86-4)	0,8812 g/cm³ at 20 °C (BL dodavatele)
Technical xylene (mixed with ethylbenzene)	0,862-0,88 g/cm³ at 25 °C (BL dodavatele)
titanium dioxide (CAS: 13463-67-7)	4 g/cm³ at 20 °C (BL dodavatele)
Form	liquid, liquid without mechanical impurities, formation of miscible sediment is allowed

9.2. Other information

Ignition temperature	440 °C (PND 33 0371)
Vapour density	> 1 (air = 1)
Combustion temperature	38 °C (PND 65 6212)
Content of organic solvents (VOC)	0,578 kg/kg (calculation)
Total organic carbon (TOC)	0,485 kg/kg (calculation)
Solid content (dry matter)	15-45 % volume (manufacturer's methodology B5/TD1-12B)
VOC limit value	cat. A (h) SB: 750 g/l
Max. VOC content in the product in its ready to use condition	585 g/l (calculation)

Calorific value: 38,71 MJ/kg (PND 65 6169); Heat of combustion: 40,98 MJ/kg (PND 65 6169); Flammability - temperature class: T2 (PND 33 0371)

SECTION 10: Stability and reactivity

10.1. Reactivity

not available

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 available data the classification criteria are not met.

2-butanone oxime

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		900-2326 mg/kg bw		Rat		echa
Inhalation	LC50		4.83 mg/l of air	4 hour	Rat		echa
Dermal	LD50		1000 mg/kg bw		Rabbit		echa

2-methoxy-1-methylethyl acetate

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		5000 mg/kg		Rat (Rattus norvegicus)		BL dodavatele
Inhalation	LC 0		>23.5 mg/l	6 hour	Rat (Rattus norvegicus)		BL dodavatele
Dermal	LD50		5000 mg/kg		Rat (Rattus norvegicus)		BL dodavatele

3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50	OECD 401	>5000 mg/kg		Rat (Rattus norvegicus)		BL dodavatele

carbon black

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		13400 mg/kg		Rat		výrobce
Dermal	LD50		3000 mg/kg		Rabbit		výrobce
Oral	LD50		15400 mg/kg		Rat		výrobce
Inhalation	LD50		3000 mg/kg		Rabbit		výrobce

diiron trioxide

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		>5000 mg/kg		Rat		BL dodavatele

ethylbenzene

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		3500 mg/kg		Rat		
Dermal	LD50		17800 mg/kg		Rat		
Inhalation (vapor)	LC50		17400 mg/kg	4 hour	Rat		

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		5 000 - 15 000 mg/kg bw		Rat		ECHA
Inhalation	LC50		5 mg/l of air	8 hour	Rat		ECHA
Dermal	LD50		2 000 mg/kg bw		Rat		ECHA

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		15000 mg/kg bw		Rat		ECHA
Inhalation	LD50		13.1 mg/l of air	4 hour	Rat		ECHA
Dermal	LD50		4 ml/kg bw		Rat		ECHA
Inhalation	NOAEL		300 ppm		Rat		ECHA
Dermal	NOAEL		495 mg/kg bw/day		Rat		ECHA

maleic anhydride

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		1090 mg/kg bw		Rat (Rattus norvegicus)		ECHA
Inhalation	LC50		4.35 mg/l of air	60 min	Rat (Rattus norvegicus)		ECHA
Dermal	LD50		2620 mg/kg bw		Rabbit		ECHA

titanium dioxide

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		>5000 mg/kg				BL dodavatele
Inhalation	LC50		>6.82 mg/l of air				BL dodavatele

xylene

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Source
Oral	LD50		3523 mg/kg		Rat		BL dodavatele
Dermal	LD50		2000 mg/kg		Rabbit		BL dodavatele
Inhalation	LC50		29000 mg/m³	4 hour	Rat		BL dodavatele

Skin corrosion/irritation
Based on available data the classification criteria are not met.

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

Respiratory or skin sensitisation
Based on available data the classification criteria are not met.

Germ cell mutagenicity
Based on available data the classification criteria are not met.

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

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

Toxicity for specific target organ - single exposure
May cause drowsiness or dizziness.

Toxicity for specific target organ - repeated exposure
May cause damage to the central nervous system, the respiratory tract (inhalation) through prolonged or repeated exposure.

Repeated dose toxicity

2-butanone oxime

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Oral	NOAEL		25-125 mg/kg bw/day		Rat		echa
Inhalation	NOAEC		90 mg/m³ of air		Rat		echa

2-methoxy-1-methylethyl acetate

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Inhalation	NOAEL		1000 ppm		Rat		echa
Dermal	NOAEL		1000-1838 mg/kg bw/day		Rabbit		echa

ethylbenzene

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Oral	NOAEL		75 mg/kg bw/day		Rat		echa
Inhalation	NOAEC		75 mg/kg bw/day		Rat		echa

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Oral	NOAEL		1 000 - 5 000 mg/kg bw/day		Rat		ECHA
Inhalation	NOAEL		200 ppm		Rat		ECHA

maleic anhydride

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Oral	NOAEL		10 mg/kg bw/day		Rat (Rattus norvegicus)		ECHA
Inhalation	NOAEC		3.3 mg/m³ of air		Rat (Rattus norvegicus)		ECHA

xylene

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Oral	NOAEL		150-250 mg/kg bw/day		Rat (Rattus norvegicus)		echa

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2. Information on other hazards

not available

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Harmful to aquatic life with long lasting effects.

2-butanone oxime

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC50		100 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		echa
EC50		201 mg/l	48 hour	Aquatic invertebrates		echa
EC50		6.09-11.8 mg/l	72 hour	Algae and other aquatic plants		echa
EC50		281 mg/l	17 hour	Microorganisms (Photobacterium phosphoreum)		echa

2-methoxy-1-methylethyl acetate

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC50		134 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		BL dodavatele
EC50		408 mg/l	48 hour	Daphnia (Daphnia magna)		BL dodavatele
EC50		500 mg/l	48 hour	Aquatic invertebrates		echa
ErC50	OECD 201	>1000 mg/l	96 hour	Algae (Selenastrum capricornutum)		BL dodavatele
EC 10		1 g/l	30 min	Microorganisms (Photobacterium phosphoreum)		echa

3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC50	OECD 203	>100 mg/l	96 hour	Fishes (Branchydanio rerio)		BL dodavatele
EC50	OECD 202	>100 mg/l	48 hour	Daphnia (Daphnia magna)		BL dodavatele

3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one

Parameter	Method	Value	Time of exposure	Species	Environment	Source
EC50	OECD 201	>100 mg/l	72 hour	Algae (Pseudokirchneriella subcapitata)		BL dodavatele
NOEC	OECD 209	1000 mg/l	30 min	Microorganisms (Aktivovaný kal)		BL dodavatele

carbon black

Parameter	Method	Value	Time of exposure	Species	Environment	Source
EC50		5600 mg/l	24 hour	Crustaceans		výrobce

diiron trioxide

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC50		>1000 mg/l	48 hour	Fishes (Leuciscus idus)		BL dodavatele

ethylbenzene

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC50		4.2-5.1 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		echa
EC50		1.8-2.4 mg/l	48 hour	Aquatic invertebrates		echa
EC50		3.6-7.7 mg/l	96 hour	Algae and other aquatic plants		echa
EC50		96 mg/l	24 hour	Microorganisms (Photobacterium phosphoreum)		echa

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Parameter	Method	Value	Time of exposure	Species	Environment	Source
EL 50		1 g/l	72 hour	Algae and other aquatic plants		ECHA
EL 50		1 g/l	24 hour	Aquatic invertebrates		ECHA
LL 50		1 g/l	24 hour	Fishes (Oncorhynchus mykiss)		ECHA

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LD50		10 mg/l	4 day	Fishes (Oncorhynchus mykiss)		ECHA
LD50		10 mg/kg	48 hour	Aquatic invertebrates		ECHA
EC50		580 µg/l	4 day	Algae and other aquatic plants		ECHA

maleic anhydride

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC50		75 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		ECHA
EC50		42.81 mg/l	48 hour	Aquatic invertebrates		ECHA
EC50		74.35 mg/l	72 hour	Algae and other aquatic plants		ECHA
EC50		12.5 mg/l	15 min	Microorganisms (Photobacterium phosphoreum)		ECHA

titanium dioxide

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC50		>100 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	Freshwater	BL dodavatele
LC50		>1000 mg/l	96 hour	Fishes (Pimephales promelas)	Freshwater	BL dodavatele
LC50	OECD 202	>100 mg/l	48 hour	Daphnia (Daphnia magna)	Freshwater	BL dodavatele

xylene

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC50		13.5 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		BL dodavatele
EC50		7.4 mg/l	48 hour	Daphnia (Daphnia magna)		BL dodavatele
EC50		2.2-4.36 mg/l	73 hour	Algae and other aquatic plants		echa
EC50		96 mg/l	24 hour	Microorganisms (Photobacterium phosphoreum)		echa

Chronic toxicity

2-methoxy-1-methylethyl acetate

Parameter	Value	Time of exposure	Species	Environment	Source
LC50	63.5 mg/l	14 day	Fishes (Oncorhynchus mykiss)		echa

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Parameter	Value	Time of exposure	Species	Environment	Source
NOELR	230 µg/l	21 day	Aquatic invertebrates		ECHA
NOELR	131 µg/l	28 day	Fishes (Oncorhynchus mykiss)		ECHA

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Parameter	Value	Time of exposure	Species	Environment	Source
NOEL	130 µg/l	96 hour	Fishes (Oncorhynchus mykiss)		ECHA
EC50	328 µg/l	21 day	Aquatic invertebrates		ECHA

12.2. Persistence and degradability

not available

12.3. Bioaccumulative potential

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

not available

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

Waste management legislation

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

Waste type code

08 01 11 waste paint and varnish containing organic solvents or other hazardous substances *
08 01 13 sludges from paint or varnish containing organic solvents or other hazardous substances *
20 01 27 paint, inks, adhesives and resins containing hazardous substances *

Packaging waste type code

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

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

SECTION 14: Transport information

14.1. UN number or ID number

UN 1263

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class(es)

3 Flammable liquids

14.4. Packing group

III - substances presenting low danger

14.5. Environmental hazards

no

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Maritime transport in bulk according to IMO instruments

not available

Additional information

Hazard identification No.	**30**
UN number	**1263**
Classification code	F1
Safety signs	3

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
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
RID Tanks	
Tank code	LGBF
Transport category	0
Special provision for	
packages	W 12

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 of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

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

m-tolylidene diisocyanate

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;

m-tolylidene diisocyanate

Restriction	Conditions of restriction
	— 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; — 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

not available

SECTION 16: Other information

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

H-	not classified as dangerous
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
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.
H351	Suspected of causing cancer.
H372	Causes damage to the central nervous system, the respiratory tract (inhalation) through prolonged or repeated exposure.
H372	Causes damage to the respiratory tract (inhalation) through prolonged or repeated exposure.
H373	May cause damage to the central nervous system, the respiratory tract (inhalation) through prolonged or repeated exposure.
H373	May cause damage to hearing organs through prolonged or repeated exposure.
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

P501	Dispose of contents/container to by handing over to a person authorized to dispose of waste or a site designated by the town.
P102	Keep out of reach of children.
P405	Store locked up.
P101	If medical advice is needed, have product container or label at hand.
P271	Use only outdoors or in a well-ventilated area.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P403+P235	Store in a well-ventilated place. Keep cool.
P370+P378	In case of fire: Use foam (alcohol resistant), carbon dioxide, a spray mist, powder to extinguish.
P260	Do not breathe vapours/spray.
P314	Get medical advice/attention if you feel unwell.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P103	Read label before use.

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

EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH208	Contains 2-butanone oxime, maleic anhydride. May produce an allergic reaction.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.

Other important information about human health protection

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

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC50	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union

EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC50	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Asp. Tox.	Aspiration hazard
Carc.	Carcinogenicity
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Resp. Sens.	Respiratory sensitization
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
Without classification	Without classification

Training guidelines

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

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

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

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

The version 3.0 replaces the SDS version from 20.11.2019. Changes were made in sections 1, 2, 3, 7, 9, 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.