

Safety Data Sheet

CMR-440 2C-Clear Coat for Tarpaulin - "hand use"

according to Regulation (EU) 2015/830

Last Revision:

02.06.20



Version:

V-2020-001

HR 1022

SECTION 1

Identification of the substance/mixture and of the company

1.1 Product identifier

CMR-440

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

Relevant identified uses:

transparent clear coat for PVC tarpaulin

1.3 Details of the supplier of the safety data sheet

Manufacturer/Distributor	CMR Coatings GmbH
Address/POB	Wilhelmstr. 8
IVR/ZIP/Place	D-32602 Vlotho
E-Mail	info@cmr-coatings.de
Telephone	+49 (0) 57 33 – 96 35 – 260
Fax	+49 (0) 57 33 – 96 35 – 263
Department of MSDS	info@cmr-coatings.de

1.4 Emergency telephone number

+49 (0) 57 33 – 96 35 – 260 (Monday - Friday, 8:00 - 16:00)

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

The mixture is not classified according to the CLP regulation.

For the full text of the hazard statements listed in this section, see section 16.

2.2 Label elements

no label elements

Code: -

Signal word: **No signal word**

Hazard statements

none

Precautionary statements

none

Further hazard statements

EUH208: Contains Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1), 1,2-benzisothiazol-3(2H)-one.
 May produce an allergic reaction.

Additional information for labelling

EUH210: Safety data sheet available on request.

2.3 Other hazards

The results of the PBT and vPvB assessment can be found in subsection 12.5.

SECTION 3 Composition/information on ingredients

3.1 Substances

This product is a mixture.

3.2 Mixtures

Aqueous plastic dispersion with additives.

EC-No. CAS-No. INDEX-No.	REACH-No. Designation Classification	Portion
203-919-7 111-90-0	01-2119475105-42-xxxx 2-(2-ethoxyethoxy)ethanol	6,30%
203-539-1 107-98-2 603-064-00-3	01-2119457423-35 1-Methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	2,00%
252-104-2 34590-94-8	01-2119450011-60 (2-methoxymethylethoxy)propanol	1,55%
204-469-4 121-44-8 612-004-00-5	01-2119475467-26-XXXX Triethylamine Flam. Liq. 2; H225 / Acute Tox. 4; H302 / Acute Tox. 3; H311 / Acute Tox. 3; H331 / Skin Corr. 1A; H314 / Eye Dam. 1; H318 / STOT SE 3; H335 Specific concentration limit (SCL): STOT SE 3 H335 >=1%	0,43%
220-120-9 2634-33-5 613-088-00-6	1,2-benzisothiazol-3(2H)-one Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1, H317; Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2; H411 Specific concentration limit (SCL): Skin Sens. 1; H317 >= 0,05%	<0,01%

55965-84-9 613-167-00-5	Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330 Skin Corr. 1B; H314, Skin Irrit.2, H315; Eye Dam. 1, H318 Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=10) Specific concentration limit (SCL): Skin Corr. 1B; H314 $\geq 0,6\%$ / Skin Irrit.2; H315 $0,06\% < C < 0,6\%$ / Eye Irrit. 2, H319 $0,06\% < C < 0,6\%$ Skin Sens. 1; H317 $\geq 0,0015\%$	<0,0015%
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The wording of the classification codes is in section 16.

SECTION 4 First aid measures

4.1 Description of first aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	Remove the person to fresh air, in case of indisposition obtain medical advice.
Skin contact	Take off contaminated clothing. Wash off affected skin with plenty of water using soap in case of indisposition obtain medical advice.
Eye contact	Spreading the eyelids, rinse thoroughly under running water, see an eye specialist.
If swallowed	Never fuse anything through the mouth of an unconscious person. Do not induce vomiting if swallowed - see a physician. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, CO₂, dry chemical, foam.

Unsuitable extinguishing media

Water jet.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition to carbon monoxide, carbon dioxide, irritating gases / vapours

5.3 Advice for firefighters

Tightly closing fireproof clothing and oxygen apparatus.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

See section 8 "Exposures controls/personal protection".

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not allow the product to enter waters.
Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up

Pick up with an inert absorbable material and dispose according to local regulations, unless otherwise usable.

6.4 Reference to other sections

For disposal, see section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

Keep container cool and tightly closed, take care of sufficient ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Keep away container from strong oxidising agents. Cool endangered containers with sprinkling water.
Keep away from frost.

7.3 Specific end uses

No data available.

SECTION 8

Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters (2000/39/EC)

1-Methoxy-2-propanol		
EG-Nr. 203-539-1 / CAS-Nr. 107-98-2 / INDEX-Nr. 603-064-00-3		
TWA:	375 mg/m ³	100 ml/m ³
STEL:	568 mg/m ³	150 ml/m ³
Remark: Skin	Can be absorbed through the skin.	

(2-Methoxymethylethoxy)propanol		
EG-Nr. 252-104-2 / CAS-Nr. 34590-94-8		
TWA:	308 mg/m ³	50 ppm
STEL:	-	-
Remark: Skin	Can be absorbed through the skin.	

Triethylamine		
EG-No. 204-469-4 / CAS-No. 121-44-8 / Index-No. 612-004-00-5		
TWA:	8,4 mg/m ³	2 ppm
STEL:	12,6 mg/m ³	3 ppm
Remark: Skin	Can be absorbed through the skin.	

Components with workplace control parameters (TRGS 900 Germany)

2-(2-Ethoxyethoxy)ethanol		
EG-No. 203-919-7 / CAS-No. 111-90-0		
AGW	35 mg/m ³	6 ppm
Peak limit	2(l)	
Remarks		AGS, Y, (11)

There is no need to fear a risk of teratogenic effects if the workplace limit value and the biological limit value (BGW) are observed.

1-Methoxy-2-propanol		
EG-Nr. 203-539-1 / CAS-Nr. 107-98-2 / INDEX-Nr. 603-064-00-3		
AGW	370 mg/m ³	100 ml/m ³
Peak limit	2(l)	
Remarks		Y

(2-Methoxymethylethoxy)propanol		
EG-Nr. 252-104-2 / CAS-Nr. 34590-94-8		
AGW (aerosols, vapour)	310 mg/m ³	50 ppm
Peak limit	1 (l)	
Remarks		DFG, EU, (11)

Triethylamine		
EG-No. 204-469-4 / CAS-No. 121-44-8 / Index-No. 612-004-00-5		
AGW	4,2 mg/mg ³	1 ppm
Peak limit	2(l)	
Remarks	*1)	DFG, EU, H, (6)

* 1): Senate Commission for the Testing of Harmful Working Materials of the German Research Foundation (MAK Commission). European Union. (The EU has set an air limit: Deviations in value and peak limitation are possible.) Skin-resorptive. Reaction with nitrosating agents can lead to the formation of the corresponding carcinogenic N-nitrosoamines.

Components with biological limit values (TRGS 903 Germany)

none

DNEL:

2-(2-Ethoxyethoxy)ethanol	
EG-No. 203-919-7 / CAS-No. 111-90-0	
Worker - long term - dermal, systemic effect	50 mg/kg bw/d
Worker - long term - inhalative, systemic effect	37 mg/m ³
Worker - long term - inhalative, local effect	18 mg/m ³
Consumer - long term - dermal, systemic effect	25 mg/kg bw/d
Consumer - long term - inhalative, systemic effect	18,3 mg/m ³
Consumer - long term - oral, systemic effect	25 mg/kg bw/d
Consumer - long term - inhalative, local effect	9 mg/m ³

1-Methoxy-2-propanol	
EG-Nr. 203-539-1 / CAS-Nr. 107-98-2 / INDEX-Nr. 603-064-00-3	
Worker - long term - dermal, systemic effect	50,6 mg/kg bw/d
Worker - long term - inhalative, systemic effect	369 mg/m ³
Worker - acute - inhalative, local effect	553,5 mg/m ³
Consumer - long term - oral, systemic effect	3,3 mg/kg bw/d
Consumer - long term - dermal, systemic effect	18,1 mg/kg bw/d
Consumer - long term - inhalative, systemic effect	43,9 mg/m ³

(2-Methoxymethylethoxy)propanol	
EG-Nr. 252-104-2 / CAS-Nr. 34590-94-8	
Worker - long term - dermal, systemic effect	65 mg/kg
Worker - long term - inhalative, systemic effect	310 mg/m ³
Consumer - long term - dermal, systemic effect	15 mg/kg
Consumer - long term - inhalative, systemic effect	37,2 mg/m ³
Consumer - long term - oral, systemic effect	1,67 mg/kg

Triethylamine	
EG-No. 204-469-4 / CAS-No. 121-44-8 / Index-No. 612-004-00-5	
Worker - long term - inhalative, systemic effect	8,4 mg/m ³
Worker - long term - inhalative, local effect	8,4 mg/m ³
Worker - acute - inhalative, systemic effect	12,6 mg/m ³
Worker - acute - inhalative, local effect	12,6 mg/m ³
Worker - long term - dermal, systemic effect	12,1 mg/kg bw/d

PNEC:

2-(2-Ethoxyethoxy)ethanol	
EG-No. 203-919-7 / CAS-No. 111-90-0	
Aquatic, freshwater	0,74 mg/l
Aquatic, marine water	0,074 mg/l
Periodic release	10 mg/l
Sediment, freshwater (based on dryweight)	2,47 mg/kg
Sediment, marine water (based on dryweight)	0,274 mg/kg
Sewage treatment plant (STP)	500 mg/l
Soil (based on dryweight)	0,15 mg/kg

1-Methoxy-2-propanol	
EG-Nr. 203-539-1 / CAS-Nr. 107-98-2 / INDEX-Nr. 603-064-00-3	
Aquatic, freshwater	10 mg/l
Aquatic, marine water	1 mg/l
Periodic release	100 mg/l
Sediment, freshwater (based on dryweight)	52,3 mg/kg
Sediment, marine water (based on dryweight)	5,2 mg/kg
Soil (based on dryweight)	5,49 mg/kg
Sewage treatment plant (STP)	100 mg/l

(2-Methoxymethylethoxy)propanol	
EG-Nr. 252-104-2 / CAS-Nr. 34590-94-8	
Aquatic, freshwater	19 mg/l
Aquatic, marine water	1,9 mg/l
Periodic release	190 mg/l
Sewage treatment plant (STP)	4168 mg/l
Sediment, freshwater	70,2 mg/l
Sediment, marine water	7,02 mg/kg
Soil	2,74 mg/kg

Triethylamine	
EG-No. 204-469-4 / CAS-No. 121-44-8 / Index-No. 612-004-00-5	
Aquatic, freshwater	0,11 mg/l
Aquatic, marine water	0,011 mg/l
Sediment, freshwater	1,575 mg/kg
Sediment, marine water	0,158 mg/kg
Sewage treatment plant (STP)	100 mg/l
Soil	0,25 mg/kg

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with the skin and the eyes. When using do not eat, drink or smoke; preventive skin protection.

Personal protective equipment

Respiratory protection	In case of exceeding the permitted exposure limit in closed rooms use a self-contained breathing apparatus. Recommended filter type: A
Eye protection	Tightly sealed goggles recommended. Wear face protection if there is a risk of splashing.
Skin protection	Wear suitable protective gloves. Observe the information provided by the manufacturer in regard to permeability and breakthrough time as well as the special conditions at the workplace (mechanical stress, contact duration). Protective gloves should be replaced at the first signs of wear.
Material:	Butyl rubber
Breakthrough time:	>= 480min
Glove thickness:	0,5mm
Body Protection	Solvent-resistant protective clothing made of rubber or plastic is recommended. Wear a rubber apron if there is a risk of splashing.

8.3 Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not allow the product to enter waters.
 Discharge into the environment must be avoided.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Aggregate state:		liquid
Colour:		milky white
Odour:		slight individual odour
Melting point/freezing point:		Not available.
Initial boiling point/boiling range:		100 °C
Flash point:		> 100 °C
Flammability:		Not applicable.
Ignition temperature:		Not applicable.
Auto flammability:		Not applicable.
Oxidising properties:		Not applicable.
Explosive properties:		Not applicable.
Explosion limits:	lower	Not applicable.
	upper	Not applicable.
Water solubility:	(T = 20 °C)	Dispersible in each ratio.
Vapour pressure:	(T = 20 °C)	Not available.
Vapour density (air = 1):		Not available.
Partition coefficient (n-octanol/water):		Not available.
Solids content		30 - 35 %
Density:	(T = 20 °C)	1.05 g/cm ³

pH value:	(T = 20 °C)	7.0 - 8.0
Viscosity - kin. (4 mm DIN flow cup):	(T = 20 °C)	12 - 18 s
Separation of solvent:		Not applicable.
Volatiles/VOC:		approx. 10 %
Evaporation rate:		Not available.

9.2 Other information

No data available.

SECTION 10 Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

2-(2-ethoxyethoxy)ethanol, 1-Methoxy-2-propanol, (2-methoxymethylethoxy)propanol and Triethylamine are released during application and drying.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Frost, heat

10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong reducing agents

10.6 Hazardous decomposition products

In case of fire only, see section 5.2.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Mixture

No data available.

Components

2-(2-ethoxyethoxy)ethanol	
EG-No. 203-919-7 / CAS-No. 111-90-0	
oral, mouse, LD50	
dermal, rabbit, LD50	

1-Methoxy-2-propanol	
EG-Nr. 203-539-1 / CAS-Nr. 107-98-2 / INDEX-Nr. 603-064-00-3	
oral, rat, LD50	4016 mg/kg
dermal, rat, LD50	2000 mg/kg

(2-Methoxymethylethoxy)propanol

EG-Nr. 252-104-2 / CAS-Nr. 34590-94-8

oral, rat, LD50 > 4000 mg/kg

Triethylamine

EG-No. 204-469-4 / CAS-No. 121-44-8 / Index-No. 612-004-00-5

oral, rat, LD50 730 mg/kg

dermal, rabbit, LD50 580 mg/kg

inhalative, rat, LC50 7,22 mg/l

(vapour, 4h)

1,2-benzisothiazol-3(2H)-one

EC-No. 220-120-9 / CAS-No. 2634-33-5 / Index-No. 613-088-00-6

oral, rat, LD50 1193 mg/kg

dermal, rat, LD50 4115 mg/kg

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

CAS-No. 55965-84-9 / Index-No. 613-167-00-5

oral, rat, LD50 66 mg/kg

dermal, rat, LD50 141 mg/kg

inhalativ, LC50 0,17 mg/l

(dust and mist, 4h)

Skin corrosion/irritation
Mixture

No data available.

Components
2-(2-ethoxyethoxy)ethanol

EG-No. 203-919-7 / CAS-No. 111-90-0

Prolonged skin contact may cause skin irritation.

Serious eye damage/irritation
Mixture

No data available.

Components
2-(2-ethoxyethoxy)ethanol

EG-No. 203-919-7 / CAS-No. 111-90-0

Cause eye irritation

Respiratory or skin sensitisation
Mixture

May cause an allergic skin reaction

Germ cell mutagenicity

No data available.

Carcinogenicity

Mixture

No data available.

Components

Triethylamine

Triethylamine can form nitrosamines with nitrosating agents (e.g. nitrites, nitrogen oxides) under special conditions. Nitrosamines have been shown to be carcinogenic in animal experiments.

Reproductive toxicity

No data available.

Specific Target Organ Toxicity - single exposure

Mixture

No data available.

Components

Triethylamine (0,43%)

EG-No. 204-469-4 / CAS-No. 121-44-8 / Index-No. 612-004-00-5

Classification of the substance: Category 3

SCL: Category 3: 1%

Specific Target Organ Toxicity - repeated exposure

No data available.

Aspiration hazard

No data available.

Other information

No data available.

11.2 Additional information

Triethylamine

Causes liver and kidney damage in experimental animals.

1-Methoxy-2-propanol

Inhalation of product vapors can lead to headaches, drowsiness and dizziness. Repeated and prolonged skin contact can cause degreasing and irritation.

2-(2-ethoxyethoxy)ethanol

Symptoms of increased exposure can include headache, dizziness, fatigue, nausea and vomiting.

SECTION 12 Ecological information

12.1 Toxicity

2-(2-ethoxyethoxy)ethanol

Fish toxicity, *Ictalurus punctatus* (Channel catfish); 96 h, LC50:

6010 mg/l

Daphnia toxicity, *Daphnia magna* (Big water flea); EC50:

1982 mg/l

Algae toxicity, *Desmodesmus subspicatus* (Green algae); 96 h, EC50:

> 100 mg/l

Bacteria toxicity, Bacteria; 16h, EC10:

4000 mg/l

(2-Methoxymethylethoxy)propanol

Daphnia toxicity, *Daphnia magna* (Big water flea), NOEC:

>= 0,5 mg/l (22d)

Triethylamine

Fish toxicity, LC50, Oryzias latipes (Japanese rice fish):	24 mg/l (96h)
Daphnia toxicity, LC50, Ceriodaphnia spec:	17 mg/l (48h)
Algae toxicity, EC50, Desmodus Desmodesmus subspicatus:	24,8 mg/l (96h)
NOEC (Fish), Oncorhynchus mykiss (Rainbow trout):	3,2 mg/l (60d)
NOEC (Daphnia), Daphnia magna (Big water flea):	11 mg/l (21d)
Bacteria toxicity, EC50, Pseudomonas putida:	95 mg/l (17h)

1,2-benzisothiazol-3(2H)-one

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout):	2,18 mg/l (96h)
Daphnia toxicity, EC50, Daphnia magna:	2,94 mg/l (48h)
Algae toxicity, EC50, Pseudokirchneriella subcapitata:	0,11 mg/l (72h)
NOEC (Algae), Skeletonema costatum:	0,027 mg/l (72h)

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout):	0,188 mg/l (96h)
Daphnia toxicity, EC50, Daphnia magna:	0,126 mg/l (48h)
Algae toxicity, EC50, Selenastrum capricornutum:	0,027 mg/l (72h)
NOEC (Fish), Oncorhynchus mykiss (Rainbow trout):	0,098 mg/l (28d)
NOEC (Fish), Daphnia magna (Big water flea):	0,004 mg/l (21d)
NOEC (Algae), Pseudokirchneriella subcapitata:	0,0012 mg/l (72h)
Bacteria toxicity, EC50:	7,92 mg/l (3h)

12.2 Persistence and degradability

2-(2-ethoxyethoxy)ethanol

Result:	90% (exposure duration: 28 d) (OECD 301 E) Readily biodegradable
Result:	> 90% (exposure duration: 5.5 d) (OECD 302 B) Readily biodegradable

1-Methoxy-2-propanol

Result:	96% (exposure duration: 28 d) (OECD 301 E) Readily biodegradable.
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(2-Methoxymethylethoxy)propanol

Result:	Readily biodegradable (aerobic) OECD Test Guideline 301F
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Triethylamine

Readily biodegradable (according to OECD criteria)

1,2-benzisothiazol-3(2H)-one

Readily biodegradable

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Readily biodegradable

12.3 Bioaccumulative potential

2-(2-ethoxyethoxy)ethanol

Result:	log Kow -0.54 BCF: <100 log Pow <1 Bioaccumulation is not expected.
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(2-Methoxymethylethoxy)propanol

Partition coefficient: n-octanol / water (log Pow): 0,004

12.4 Mobility in soil

2-(2-ethoxyethoxy)ethanol

Highly mobile in soil.

12.5 Results of PBT and vPvB assessment

According to the available statements the criteria are not fulfilled for the classification as a PBT or vPvB.

12.6 Other adverse effects

Spilling product harms waters by high consumption of oxygen and general pollution impact.

SECTION 13 Disposal considerations

13.1 Waste treatment methods

No dangerous waste according to the European waste catalogue (2008/98/EG). If recycling is not possible, wastes must be eliminated according to the provisions of the local authorities.

Do not dispose by the sewage.

List of proposed waste codes/waste designations in accordance with EWC

080111* Waste paint and varnish containing organic solvents or other dangerous substances

*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14 Transport information

14.1 UN number

Not applicable.

14.2 Proper shipping name

ADR/RID / IMDG / IATA

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Labelling of environmentally dangerous substances

ADR/RID / IMDG / IATA	Not applicable.
Marine Pollutant	Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

SECTION 15 Regulatory information

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

Provisions of the EU

Denomination in Annex I of the Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

Not applicable.

Regulation (EU) No 528/2012 for the marketing of biocidal products

Not applicable.

Regulation (EC) No 648/2004 (Regulation concerning detergents)

Not applicable.

Directive 1999/13/EC for the limitation of emissions of volatile organic compounds

Not applicable.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding

Not applicable.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Not applicable.

Directive 94/33/EC on the protection of young people at work

Not applicable.

German regulations

Technical instructions on maintaining air purity

(TA Luft)	Not applicable.
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Water hazard class	WGK 1 (low hazardous to waters)
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Storage class according to TRGS 510	LGK 12 (non-combustible liquids)
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Other regulations, restrictions and prohibition ordinances

Not applicable.

15.2 Chemical safety assessment

This mixture was not subject to a safety assessment.

SECTION 16 Other information

The wording of the classification codes of section 3

Acute Tox. 2; H310	Acute toxicity (dermal)	
Acute Tox. 2; H330	Acute toxicity (inhalative)	Fatal if inhaled.
Acute Tox. 3; H301	Acute toxicity (oral)	Toxic if swallowed.
Acute Tox. 3; H311	Acute toxicity (dermal)	Toxic in contact with skin
Acute Tox. 3; H331	Acute toxicity (inhalative)	Toxic if inhaled.
Acute Tox. 4; H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 4; H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4; H332	Acute toxicity (inhalative)	Harmful if inhaled.
Aquatic Acute 1; H400	Hazardous to the aquatic environment	Very toxic to aquatic life.
Aquatic Chronic 1; H410	Hazardous to the aquatic environment	Very toxic to aquatic life with long-lasting effects
Aquatic Chronic 2; H411	Hazardous to the aquatic environment	Toxic to aquatic life with long-lasting effects.
Eye Dam. 1; H318	Serious eye damage/ Eye irritation	Causes serious eye damage.
Eye Irrit. 2; H319	Serious eye damage/ Eye irritation	Causes serious eye irritation.
Flam. Liq. 2; H225	Flammable liquid	Highly flammable liquid and vapour
Flam. Liq. 3; H226	Flammable liquid	Flammable liquid and vapour.
Repr. 1B; H360D	Reproductive toxicity	May damage the unborn child
Skin Corr. 1A; H314	Skin corrosion/ irritation	
Skin Corr. 1B; H314	Skin corrosion/ irritation	Causes severe skin burns and eye damage.
Skin Irrit. 2; H315	Skin corrosion/ irritation	Causes skin irritation.
Skin Sens. 1; H317	Skin sensitisation	May cause an allergic skin reaction.
STOT SE 3; H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
STOT SE 3; H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.

The classification codes only apply to the pure substances and do not declare necessarily the classification of the mixture. The classification and the labelling of the mixture are specified in section 2.

Abbreviations

(11)	Sum of vapor and aerosols.
(I)	Substances for which the local effect determines the limit value or substances that sensitize the respiratory tract
ADR	European Agreement concerning the International Carriage of Dangerous Goods by

	Road
AGS	Committee for hazardous substances.
AGW	Occupational exposure limit value.
BCF	Bioconcentration factor
bw	Body weight
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging of substances and mixtures
DNEL	Derived no-effect level
EC10	Concentration at which an effect can be observed in 10% of the test population.
EC50	Half maximal effective concentration
EC	European Community
EC-No.	Registration number of the "European Inventory of Existing Chemical Substances" (EINECS)
ErC50	average inhibitory concentration of the growth rate
EU	European Union.
IATA	International Air Transport Association
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG	International Maritime Code for Dangerous Goods
LC50	Lethal concentration for 50% of a test population
LD50	Lethal dose for 50% of a test population (mean lethal dose)
LGK	Storage class.
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
NO(A)EC	No observed (adverse) effect concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, bioaccumulative and toxic.
PNEC	predicted no effect concentration
REACH	Regulation (EC) No. 1907/2006 of the European Parliament and of the Council regarding the registration, evaluation, authorisation and restriction of chemicals
RID	Convention concerning International Carriage by Rail
SCL	Specific concentration limit
STEL	EU workplace limit values for a reference period of 15 minutes (Short-term exposure limit)
TRGS	Technical regulation for dangerous substances.
TWA	EU workplace limit values for a reference period of 8 hours (Time-weighted-average)
vPvB	Very persistent and very bioaccumulative.
WGK	Water hazard class.
Y	No harm to the unborn child, if values of AGW and BGW are kept.

Additional information

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1.

It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

We exclude each liability for damages, that can appear in improper intercourse or contact with these chemicals.

This security data sheet replaces all previous editions. Validly from edition date.

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