

Safety Data Sheet
CMR-432/CMR-432.M Liquid-Seal II (1C)
(high-gloss/matt)

according to Regulation (EU) 2015/830

Last Revision: 02.06.20  Version: V-2020-001
HR 1010

SECTION 1

Identification of the substance/mixture and of the company

1.1 Product identifier

CMR-432/CMR-432.M

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

Relevant identified uses:

Protective film for 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

Eye Irrit. 2, H319 (Serious eye damage / Eye irritation, Category 2, H319)

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

2.2 Label elements



Code: **GHS07**

Signal word: **Warning**

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
 P337 + P313 If eye irritation persists get medical advice/attention.

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.

Hazardous ingredients

EC-No. CAS-No. INDEX-No.	REACH-No. Designation	
203-919-7 111-90-0	01-2119475105-42-xxxx 2-(2-ethoxyethoxy)ethanol	10%
67674-67-3	3-(Polyoxyethylene)propylheptamethyltrisiloxane Acute Tox. 4, H332; Eye Dam./Irrit. 1, H318 Aquatic Chronic 2; H411	0,90%
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% For this substance there are Union workplace exposure limits (see section 8).	0,25%

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 >= 0,6% / Skin Irrit.2; H315 0,06% < C < 0,6% / Eye Irrit. 2, H319 0,06% < C < 0,6% Skin Sens. 1; H317 >= 0,0015%	<0,0015%
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%

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, hydrogen cyanide, gases/ vapours, toxic, silicon oxides, formaldehyde

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)

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
Note: Skin	Larger amounts can be absorbed through the skin	

Components with workplace control parameters (TRGS 900 Germany)

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

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 designation. Reaction with nitrosating agents can lead to the formation of the corresponding carcinogenic N-nitrosoamines.

2-(2-ethoxyethoxy)ethanol		
EG-No. 203-919-7 / CAS-No. 111-90-0		
TWA (8h)	35 mg/m ³	6 ppm
Peak limit	2(l)	
Remark		AGS, Y, (11)

A risk of fertility damage is not to be feared by complying the workplace limit value and the biological limit value. (BWG)

Components with biological limit values (TRGS 903 Germany)

none

DNEL:

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

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

PNEC:

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

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 dry weight)	2,47 mg/kg
Sediment, marine water (based on dry weight)	0,274 mg/kg
Sewage treatment plant (STP)	500 mg/l
Soil (based on dry weight)	0,15 mg/kg

8.2 Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Respiratory protect. Upon application and drying are released. Ensure adequate ventilation. In case of insufficient ventilation, wear respiratory protection. Filter type: A, K

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: >= 8 h
 Glove thickness: 0,5 mm

Material: Fluorine rubber
 Breakthrough time: >= 8 h
 Glove thickness: 0,4 mm

Body Protection Solvent-resistar Protective clothing of rubber or plastics 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		32 - 38 %	
Density:	(T = 20 °C)	1,05 g/cm ³	
pH value:	(T = 20 °C)	7,5 - 8,5	
Viscosity - kin. (4 mm DIN flow cup):	(T = 20 °C)	15 - 25 s	CMR-432
Viscosity - kin. (4 mm DIN flow cup):	(T = 20 °C)	30 - 40 s	CMR-432.M
Separation of solvent:		Not applicable.	
Volatiles/VOC:		< 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

Triethylamine and 2-(2-ethoxyethoxy)-ethanol are released during application and drying.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

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

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 (vapour, 4h)	7,22 mg/l

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

1,2-benzisothiazol-3(2H)-one	
EG-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
inhalative, LC50 (dust and mist, 4h)	0,17 mg/l

3-(Polyoxyethylene)propylheptamethyltrisiloxane	
CAS-No. 67674-67-3	
oral, rat, LD50	> 5050 mg/kg
dermal, rabbit, LD50	> 2000 - 5000 mg/kg
inhalativ, rabbit, LC50 (dust / mist, 4h)	2,3 mg/l

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

Components

3-(Polyoxyethylene)propylheptamethyltrisiloxane	
CAS-No. 67674-67-3	
Species:	rabbit
Result:	Irreversible damage to the eyes

2-(2-ethoxyethoxy)ethanol	
EG-No. 203-919-7 / CAS-No. 111-90-0	
Cause eye irritation	

Respiratory or skin sensitisation

May cause an allergic skin reaction

Germ cell mutagenicity

No data available.

Carcinogenicity

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.

STOT-single exposure

Relevant components:

Triethylamine
EG-No. 204-469-4 / CAS-No. 121-44-8 / Index-No. 612-004-00-5
Classification of the substance
SLC Category 3: 1%

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No data available.

11.2 Additional information

Triethylamine

Causes liver and kidney damage in experimental animals.

SECTION 12 Ecological information

12.1 Toxicity

2-(2-ethoxyethoxy)ethanol

Fish toxicity, <i>Ictalurus punctatus</i> (Channel catfish); 96 h, LC50:	6010 mg/l
Daphnia toxicity, <i>Daphnia magna</i> (Big water flea); EC50:	1982 mg/l
Algae toxicity, <i>Desmodesmus subspicatus</i> (Green algae); 96 h, EC50:	> 100 mg/l
Bacteria toxicity, Bacteria; 16h, EC10:	4000 mg/l

3-(Polyoxyethylene)propylheptamethyltrisiloxane

Fish toxicity, LC50:	>1 - 10 mg/l (96h)
Remark: Based on test data from similar materials	
Daphnia toxicity, EC50, <i>Daphnia</i> sp. (Water flea):	>1 - 10 mg/l (48h)
Remark: Based on test data from similar materials	
Toxic to aquatic life with long-lasting effects	

Triethylamine

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

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

Fish toxicity, LC50, <i>Oncorhynchus mykiss</i> (Rainbow trout):	2,18 mg/l (96h)
Daphnia toxicity, EC50, <i>Daphnia magna</i> :	2,94 mg/l (48h)
Algae toxicity, ErC50, <i>Pseudokirchneriella subcapitata</i> :	0,11 mg/l (72h)
NOEC (Algae), <i>Skeletonema costatum</i> :	0,027 mg/l (72h)

12.2 Persistence and degradability

2-(2-ethoxyethoxy)ethanol

Result: 90 % (Exposure duration: 28d)(OECD 301 E)

Easily biodegradable.

Result: > 90 % (Exposure duration: 5,5 d)(OECD 302 B)

Easily biodegradable.

Triethylamine

Easily biodegradable (according to OECD criteria)

12.3 Bioaccumulative potential

2-(2-ethoxyethoxy)ethanol

Result: log Kow -0,54

BCF: < 100

log Pow < 1

Bioaccumulation is not to be expected.

12.4 Mobility in soil

2-(2-ethoxyethoxy)ethanol

Highly mobile in the ground

12.5 Results of PBT and vPvB assessment

According to the available statements the criteria are not fulfilled for the classification

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.
Water hazard class	WGK 1 (low hazardous to waters)
Storage class according to TRGS 510	LGK 12 (non-combustible liquids)

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), Hazard category 2; Fatal in contact with skin
Acute Tox. 2, H330	Acute toxicity (inhalative), Hazard category 2; Fatal if inhaled.
Acute Tox. 3, H301;	Acute toxicity (oral), Hazard category 3; Toxic if swallowed.
Acute Tox. 3, H311	Acute toxicity (dermal), Hazard category 3; Toxic in contact with skin
Acute Tox. 3, H331;	Acute toxicity (inhalative), Hazard category 3; Toxic if inhaled.
Acute Tox. 4, H302;	Acute toxicity (oral), Hazard category 4; Harmful if swallowed.
Acute Tox. 4, H332	Acute toxicity (inhalative), Hazard category 4; Harmful if inhaled.
Aquatic Acute 1, H400	Hazardous to the aquatic environment, Hazard category 1; Very toxic to aquatic life.
Aquatic Chronic 1, H410	Hazardous to the aquatic environment, Hazard category 1; Very toxic to aquatic life with long-lasting effects
Aquatic Chronic 2; H411	Hazardous to the aquatic environment, Hazard category 2; Toxic to aquatic life with long-lasting effects.
Eye Dam. 1, H318;	Serious eye damage / Eye irritation, Hazard category 1; Causes serious eye damage.
Eye Irrit. 2, H319;	Serious eye damage / Eye irritation, Hazard category 2; Causes serious eye irritation.
Flam. Liq. 2, H225;	Flammable liquid, Hazard category 2; Highly flammable liquid and vapour.
Skin Corr. 1A, H314;	Skin corrosion / irritation, Hazard category 1A; Causes severe skin burns and eye damage.
Skin Corr. 1B; H314,	Skin corrosion / irritation, Hazard category 1B; Causes severe skin burns and eye damage.
Skin Irrit. 2, H315;	Skin corrosion / irritation, Hazard category 2; Causes skin irritation.

Skin Sens. 1, H317; Skin sensitisation, Hazard category 1; May cause an allergic skin reaction.

STOT SE 3, H335 Specific target organ toxicity (single exposure), Hazard category 3; May cause respiratory irritation.

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.
(6)	Reaction with nitrosating agents can lead to the formation of the corresponding carcinogenic N-nitrosoamines.
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS	Committee for hazardous substances.
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging of substances and mixtures
DFG	German Research Council (Committee on Occupational Exposure Limits).
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.
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
H	Risk of absorption through the skin.
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.
MAK	Maximum workplace concentration
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
P-Satz	
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)
UN	United Nations
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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