

Safety Data Sheet
CMR-465/CMR-465.M 2C-Clear Coat for Tarpaulin EX
(high-gloss/matt)

according to Regulation (EU) 2015/830

Last Revision: 02.06.20  Version: V-2020-001
HR 1033

SECTION 1

Identification of the substance/mixture and of the company

1.1 Product identifier

CMR-465/CMR-465.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

Skin corrosion / irritation, category 2, H315

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

H315 Causes skin irritation.
 H319 Causes serious eye irritation.

Precautionary statements

P264 Wash hands thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332 + P313 If skin irritation occurs: Get medical advice/attention.
 P337 + P313 If eye irritation persists: Get medical advice/attention.
 P362 + P364 Take off contaminated clothing and wash before reuse.

Additional information for labelling

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.

Composition / information on ingredients

EC-No. CAS-No. INDEX-No.	REACH-No. Designation Classification	Portion
203-905-0 111-76-2 603-014-00-0	01-2119475108-36-xxxx 2-Butoxyethanol Acute Tox. 4, H302/ Acute Tox. 4, H332/ Acute Tox. 4, H312/ Skin Irrit. 2, H315/ Eye Irrit. 2, H319	8,0%
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%	0,55%

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 >= 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%

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 and organic cracked products.

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)

2-Butoxyethanol		
INDEX-Nr. 603-014-00-0/ EG-Nr. 203-905-0/ CAS-Nr. 111-76-2		
TWA:	98 mg/m ³	20 ppm
STEL:	50 ppm	246 mg/m ³
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-Butoxyethanol		
INDEX-Nr. 603-014-00-0/ EG-Nr. 203-905-0/ CAS-Nr. 111-76-2		
AGW	49 mg/m ³	10 ppm
Peak limit	2(l)	
Remarks		EU, DFG; H, Y

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)

2-Butoxyethanol	
INDEX-Nr. 603-014-00-0/ EG-Nr. 203-905-0/ CAS-Nr. 111-76-2	
Parameter:	2-Butoxyethylacetat (after hydrolysis)
BGW:	150 mg/g creatine
Untersuchungsmaterial:	U
Probenahmezeitpunkt:	b, c
Festlegung Begründung:	11/2016 DFG

DNEL:

2-Butoxyethanol

INDEX-Nr. 603-014-00-0/ EG-Nr. 203-905-0/ CAS-Nr. 111-76-2	
Worker - acute - dermal, systemic effect	89 mg/kg bw/d
Worker - acute - inhalative, systemic effect	663 mg/m ³ , 135 ppm
Worker - acute - inhalative, local effect	246 mg/m ³ , 50 ppm
Worker - long term - dermal, systemic effect	75 mg/kg bw/d
Worker - long term - inhalative, systemic effect	98 mg/m ³ , 20 ppm
Consumer - acute - oral, systemic effect	13,4 mg/kg bw/d
Consumer - acute - dermal, systemic effect	44,5 mg/kg bw/d
Consumer - acute - inhalative, systemic effect	426 mg/m ³
Consumer - acute - inhalative, local effect	123 mg/m ³
Consumer - long term - oral, systemic effect	3,2 mg/kg bw/d
Consumer - long term - dermal, systemic effect	38 mg/kg bw/d
Consumer - long term - inhalative, systemic effect	49 mg/m ³

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-Butoxyethanol

INDEX-Nr. 603-014-00-0/ EG-Nr. 203-905-0/ CAS-Nr. 111-76-2	
Aquatic, freshwater	8,8 mg/l
Aquatic, marine water	0,88 mg/l
Sewage treatment plant (STP)	463 mg/l
Sediment, freshwater (based on dryweight)	34,6 mg/kg
Sediment, marine water (based on dryweight)	3,46 mg/kg
Soil (based on dryweight)	2,8 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

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 protection	In case of exceeding the permitted exposure limit in closed rooms use a self-contained breathing apparatus. Recommended 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:	>= 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:		32 - 38 %
Density:	(T = 20 °C)	Not available.
pH value:	(T = 20 °C)	7.0 - 8.0

Viscosity (kin., 4 mm DIN flow cup):	(T = 20 °C)	15 - 20 s	CMR-465
Viscosity (kin., 4 mm DIN flow cup):	(T = 20 °C)	120 -130 s	CMR-465.M
Separation of solvent:		Not applicable.	
Volatiles/VOC:		< 8 %	

9.2 Other information

No data available.

SECTION 10 Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

2-butoxyethanol 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-Butoxyethanol	
INDEX-Nr. 603-014-00-0/ EG-Nr. 203-905-0/ CAS-Nr. 111-76-2	
oral, rat, LD50	1746 mg/kg
oral, guinea pig, LD50	1414 mg/kg
inhalative, LC0, (Vapour, 1h)	> 3,1 mg/l

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

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 (dust and mist, 4h)	0,17 mg/l

Skin corrosion/irritation

Mixture

Causes skin irritation.

Components

2-Butoxyethanol	
INDEX-Nr. 603-014-00-0/ EG-Nr. 203-905-0/ CAS-Nr. 111-76-2	
Skin irritation (rabbit) (OECD Guideline 405)	

Serious eye damage/irritation

Mixture

Causes serious eye irritation.

Components

2-Butoxyethanol	
INDEX-Nr. 603-014-00-0/ EG-Nr. 203-905-0/ CAS-Nr. 111-76-2	
Last Revision:	

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.

Specific Target Organ Toxicity - single exposure

Relevant components:

Triethylamine (0,55%)	
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.

Other 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-butoxyethanol

Fish toxicity, <i>Oncorhynchus mykiss</i> (Rainbow trout), LC50:	1747 mg/l (96h)
Daphnia toxicity, <i>Daphnia</i> , EC50:	1550 mg/l (48h)
Algae toxicity, <i>Pseudokirchneriella subcapitata</i> (green algae), EC50:	1840 mg/l (72h)
Bacteria toxicity, <i>Pseudomonas putida</i> , EC0:	700 mg/l (16h)
NOEL (fish), <i>Brachydanio rerio</i> (Zebrafish):	>100 mg/l (21d)
NOEL (Daphna), <i>Daphnia magna</i> (Big water flea):	100 mg/l (21d)

Triethylamine

Fish toxicity, LC50, <i>Oryzias latipes</i> (Japanese rice fish):	24 mg/l (96h)
Daphnia toxicity, LC50, <i>Ceriodaphnia spec</i> :	17 mg/l (48h)
Algae toxicity, EC50, <i>Desmodium 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)

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

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

12.2 Persistence and degradability

2-butoxyethanol

Result: 90% (aerobic; activated sludge; exposure duration: 28 d) (OECD 301 B)
 Readily biodegradable.

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-butoxyethanol

Ergebnis: log Kow 0,81 (25 °C)
Bioaccumulation is not expected.

12.4 Mobility in soil

No data available.

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.

EU waste codes

20 01 28 Paint, inks, adhesives and resins other than those mentioned in 20 01 27.
15 01 02 Plastic packaging.

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; 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
Skin Corr. 1A; H314	Skin corrosion/ irritation	Causes severe skin burns and eye damage.
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.

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

(I)	Substances for which the local effect determines the limit value or substances that sensitize the respiratory tract
(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
AGW	Occupational exposure limit value.
b	End of exposure or end of shift
BGW	Permitted biological limit value for work place.
bw	Body weight
c	Long-term exposure: at the end of the shift after several previous shifts
CAS	Chemical Abstracts Service
DFG	German Research Council (Committee on Occupational Exposure Limits).
DNEL	Derived no-effect level
EC0	Concentration of a generally environmentally hazardous substance up to which there are no effects on the environment
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
EWG	European Economic Community
EU	European Union.
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
LC0	Concentration of a substance up to which there is no lethal effect on a test population
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
NOEL	No Observed Effect Level
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)
U	Urine
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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