POWERBOND - 225 ML / 242 G (comp. B)

Version	Revision Date:	SDS Number:	Date of last issue: 28.07.2023
15.0	22.11.2023	10678850-00014	Date of first issue: 11.06.2010

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

1.1 Product identifier

Trade name	:	POWERBOND - 225 ML / 242 G (comp. B)
Product code	:	0893450100
Unique Formula Identifier (UFI)	:	NNS2-V06N-800A-8XEC

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

Use of the Substance/Mixture	:	Adhesives Professional use product
Recommended restrictions on use	:	Not applicable

1.3 Details of the supplier of the safety data sheet

Company	:	Adolf Wuerth GmbH & Co. KG Reinhold-Würth-Str. 12-17 74653 Künzelsau
Telephone	:	+49 794015 0
Telefax	:	+49 794015 10 00
E-mail address of person responsible for the SDS	:	isi@wuerth.com

1.4 Emergency telephone number

+49 (0)6132 – 84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Sub-category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

Precautionary statements :

Prevention:

P260 Do not breathe vapours.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353 + P310 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

Hazardous components which must be listed on the label:

3,3'-Oxybis(ethyleneoxy)bis(propylamine)
2,4,6-Tris(dimethylaminomethyl)phenol
2-Ethyl-4-methylimidazole
2-Methylpentane-1,5-diamine

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	4246-51-9 224-207-2	Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 EUH071	>= 10 - < 20
2,4,6-Tris(dimethylaminomethyl)phenol	90-72-2 202-013-9 603-069-00-0	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318 EUH071 Acute toxicity estimate Acute oral toxicity: 1.653 mg/kg	>= 5 - < 10
2-Ethyl-4-methylimidazole	931-36-2 213-234-5	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1B; H317 Acute toxicity estimate Acute oral toxicity: 731 mg/kg	>= 1 - < 3
2-Methylpentane-1,5-diamine	15520-10-2 239-556-6	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Corr. 1A; H314 Eye Dam. 1; H318 STOT SE 3; H335 Acute toxicity estimate Acute oral toxicity: 1.690 mg/kg Acute inhalation toxicity (dust/mist): 4,9 mg/l Acute dermal toxicity: 1.870 mg/kg	>= 1 - < 3
Bis[(dimethylamino)methyl]phenol	71074-89-0	Acute Tox. 4; H302	>= 1 - < 2,5

	275-162-0	Acute Tox. 4; H312 Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412 EUH071 Acute toxicity estimate Acute oral toxicity: 1.670 mg/kg Acute dermal toxicity: 1.242 mg/kg	
4-Methylimidazole	822-36-6 212-497-3	Acute Tox. 3; H301 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Carc. 2; H351 Repr. 2; H361 EUH071 Acute toxicity estimate Acute oral toxicity: 173 mg/kg Acute dermal toxicity: 440 mg/kg	>= 0,1 - < 1
Cristobalite	14464-46-1 238-455-4	Carc. 1A; H350i STOT RE 1; H372 (Lungs)	>= 0,1 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

If inhaled : If inhaled, remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.

Get medical attention immediately.

In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention immediately.
If swallowed	:	If swallowed, DO NOT induce vomiting. If vomiting occurs have person lean forward. Call a physician or poison control centre immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Risks	:	May cause an allergic skin reaction. Causes serious eye damage. Causes severe burns. Causes digestive tract burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion products	:	Carbon oxides Nitrogen oxides (NOx) Silicon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

6.2 Environmental precautions

Environmental precautions	:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures	:	See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.
Do not breathe vapours.
Do not swallow.
Do not get in eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in properly labelled containers. Store locked up. Keep tightly closed. Store in accordance with the particular national regulations.

Advice on common storage : Do not store with the following product types:
Strong oxidizing agents
Self-reactive substances and mixtures
Organic peroxides
Explosives

Storage class (TRGS 510) : 8A

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Silica, vitreous	60676-86-0	AGW (Alveolate fraction)	0,3 mg/m3	DE TRGS 900
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

Cristobalite	14464-46-1	TWA (Respirable dust)	0,1 mg/m3	2004/37/EC
	Further information: Carcinogens or mutagens			

This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.

Cristobalite

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	Workers	Inhalation	Long-term systemic effects	59 mg/m3
	Workers	Inhalation	Acute systemic effects	176 mg/m3
	Workers	Ingestion	Long-term local effects	1 mg/m3
	Workers	Inhalation	Acute local effects	13 mg/m3
	Workers	Skin contact	Long-term systemic effects	8,3 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	17 mg/m3
	Consumers	Inhalation	Acute systemic effects	52 mg/m3
	Consumers	Inhalation	Long-term local effects	0,5 mg/m3
	Consumers	Inhalation	Acute local effects	6,5 mg/m3
	Consumers	Skin contact	Long-term systemic effects	5 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	5 mg/kg bw/day
2-Ethyl-4-methylimidazole	Workers	Inhalation	Long-term systemic effects	4,41 mg/m3
	Workers	Skin contact	Long-term systemic effects	2,5 mg/kg
	Workers	Skin contact	Long-term local effects	0,289 mg/cm2
	Consumers	Inhalation	Long-term systemic effects	1,09 mg/m3
	Consumers	Skin contact	Long-term systemic effects	1,25 mg/kg bw/day
	Consumers	Skin contact	Long-term local effects	0,289 mg/cm2
	Consumers	Ingestion	Long-term systemic effects	0,62 mg/kg bw/day
Cyanoguanidine	Workers	Inhalation	Long-term systemic effects	15,3 mg/m3
	Workers	Inhalation	Acute systemic effects	76,5 mg/m3

	Workers	Skin contact	Long-term systemic effects	30,1 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	6,5 mg/kg bw/day
	Consumers	Inhalation	Acute systemic effects	56 mg/m3
	Consumers	Inhalation	Long-term systemic effects	11,2 mg/m3
	Consumers	Ingestion	Long-term systemic effects	6,5 mg/kg bw/day
2-Methylpentane-1,5-diamine	Workers	Inhalation	Long-term local effects	0,25 mg/m3
	Workers	Inhalation	Acute local effects	0,5 mg/m3
	Workers	Skin contact	Long-term systemic effects	1,5 mg/kg bw/day
	Consumers	Inhalation	Long-term local effects	0,125 mg/m3
	Consumers	Inhalation	Acute local effects	0,25 mg/m3
	Consumers	Skin contact	Long-term systemic effects	0,75 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0,75 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	Fresh water	0,22 mg/l
	Marine water	0,022 mg/l
	Intermittent use/release	2,2 mg/l
	Sewage treatment plant	125 mg/l
	Fresh water sediment	1,1 mg/kg
	Marine sediment	0,11 mg/kg
	Soil	0,0907 mg/kg
2,4,6-Tris(dimethylaminomethyl)phenol	Fresh water	0,084 mg/l
	Marine water	0,0084 mg/l
	Sewage treatment plant	0,2 mg/l
	Intermittent use/release	0,84 mg/l
2-Ethyl-4-methylimidazole	Fresh water	0,0681 mg/l
	Marine water	0,00681 mg/l
	Intermittent use/release	0,681 mg/l
	Sewage treatment plant	65 mg/l
	Fresh water sediment	34,9 mg/kg
	Marine sediment	3,49 mg/kg
	Soil	6,91 mg/kg
Cyanoguanidine	Fresh water	2,5 mg/l
	Marine water	0,25 mg/l
	Intermittent use/release	10 mg/l
	Sewage treatment plant	34 mg/l
	Fresh water sediment	5,83 mg/kg

	Marine sediment	0,58 mg/kg
	Soil	100 mg/kg
	Oral (Secondary Poisoning)	278 mg/kg food
2-Methylpentane-1,5-diamine	Fresh water	0,42 mg/l
	Marine water	0,042 mg/l
	Intermittent use/release	0,42 mg/l
	Sewage treatment plant	1,25 mg/l
	Fresh water sediment	7,58 mg/kg
	Marine sediment	0,758 mg/kg
	Soil	1,27 mg/kg

8.2 Exposure controls

Engineering measures

Minimize workplace exposure concentrations.
If sufficient ventilation is unavailable, use with local exhaust ventilation.

Personal protective equipment

Eye/face protection : Wear the following personal protective equipment:
Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Face-shield
Equipment should conform to DIN EN 166

Hand protection

Material : Nitrile rubber
Break through time : > 240 min
Glove thickness : 0,2 - 0,35 mm
Directive : Equipment should conform to DIN EN 374

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
Equipment should conform to DIN EN 14387

Filter type : Combined particulates, ammonia/amines and organic vapour type (AK-P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	viscous, liquid
Colour	:	tan
Odour	:	very faint, amine-like
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	132,50 °C (1,33 hPa)
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Ignitable (see flash point)
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	> 200 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	substance/mixture is non-soluble (in water)
Viscosity		
Viscosity, kinematic	:	> 10000 mm2/s (40 °C)
Solubility(ies)		
Water solubility	:	insoluble

Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	< 10 hPa (20 °C)
Relative density	:	1,13 (25 °C)
Density	:	1,13 g/cm³ (20 °C)
Relative vapour density	:	> 1
Particle characteristics		
Particle size	:	Not applicable

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Evaporation rate	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid	:	None known.

10.5 Incompatible materials

Materials to avoid	:	Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Assessment: Not corrosive to the respiratory tract

Acute toxicity estimate: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Acute oral toxicity : LD50 (Rat): 3.136 mg/kg

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rat): > 2.150 mg/kg

2,4,6-Tris(dimethylaminomethyl)phenol:

Acute oral toxicity : LD50 (Rat): 1.653 mg/kg

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

2-Ethyl-4-methylimidazole:

Acute oral toxicity : LD50 (Rat): 731 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 0,03 mg/l
Exposure time: 8 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 400 mg/kg

2-Methylpentane-1,5-diamine:

Acute oral toxicity : LD50 (Rat): 1.690 mg/kg

Acute inhalation toxicity : LC50 (Rat): 4,9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): 1.870 mg/kg
Remarks: Based on data from similar materials

Bis[(dimethylamino)methyl]phenol:

Acute oral toxicity : LD50 (Rat): 1.670 mg/kg

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): 1.242 mg/kg

4-Methylimidazole:

Acute oral toxicity : LD50 (Rat): 173 mg/kg

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): 440 mg/kg

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Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Remarks: Based on data from similar materials

Skin corrosion/irritation

Causes severe burns.

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Species : Rabbit
Result : Corrosive after 3 minutes to 1 hour of exposure

2,4,6-Tris(dimethylaminomethyl)phenol:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Corrosive after 1 to 4 hours of exposure

2-Ethyl-4-methylimidazole:

Species : Rabbit
Result : Skin irritation

2-Methylpentane-1,5-diamine:

Species	:	Rabbit
Result	:	Corrosive after 3 minutes or less of exposure

Bis[(dimethylamino)methyl]phenol:

Species	:	Rabbit
Result	:	Corrosive after 1 to 4 hours of exposure
Remarks	:	Based on data from similar materials

4-Methylimidazole:

Species	:	Rabbit
Method	:	Draize Test
Result	:	Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Species	:	Rabbit
Result	:	Irreversible effects on the eye

2,4,6-Tris(dimethylaminomethyl)phenol:

Species	:	Rabbit
Result	:	Irreversible effects on the eye

2-Ethyl-4-methylimidazole:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Irreversible effects on the eye

2-Methylpentane-1,5-diamine:

Species	:	Rabbit
Result	:	Irreversible effects on the eye

Bis[(dimethylamino)methyl]phenol:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Remarks	:	Based on data from similar materials

4-Methylimidazole:

Species	:	Rabbit
Method	:	Draize Test
Result	:	Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Test Type	:	Local lymph node assay (LLNA)
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	positive
Remarks	:	Based on data from similar materials
Assessment	:	Probability or evidence of skin sensitisation in humans

2,4,6-Tris(dimethylaminomethyl)phenol:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	equivocal
Test Type	:	Buehler Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Result	:	negative

2-Ethyl-4-methylimidazole:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	positive
Assessment	:	Probability or evidence of low to moderate skin sensitisation rate in humans

2-Methylpentane-1,5-diamine:

Test Type	:	Intracutaneous test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Result	:	negative

Bis[(dimethylamino)methyl]phenol:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig

Method	:	OECD Test Guideline 406
Result	:	negative
Remarks	:	Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: in vitro micronucleus test
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

2,4,6-Tris(dimethylaminomethyl)phenol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

2-Ethyl-4-methylimidazole:

Genotoxicity in vitro : Test Type: in vitro micronucleus test
Method: OECD Test Guideline 487
Result: negative

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

2-Methylpentane-1,5-diamine:

Genotoxicity in vitro : Test Type: Mutagenicity (in vitro mammalian cytogenetic test)
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: inhalation (dust/mist/fume)
Result: negative
Remarks: Based on data from similar materials

Bis[(dimethylamino)methyl]phenol:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials

4-Methylimidazole:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo	:	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Rat Result: negative

Carcinogenicity

Not classified based on available information.

Components:

4-Methylimidazole:

Species	:	Rat
Application Route	:	Ingestion
Exposure time	:	106 weeks
Result	:	positive
Carcinogenicity - Assessment	:	Limited evidence of carcinogenicity in animal studies

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Species	:	Humans
Application Route	:	inhalation (dust/mist/fume)
Result	:	positive
Remarks	:	This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.
Carcinogenicity - Assessment	:	Positive evidence from human epidemiological studies (inhalation)

Reproductive toxicity

Not classified based on available information.

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion

Method: OECD Test Guideline 422
Result: negative

Effects on foetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

2,4,6-Tris(dimethylaminomethyl)phenol:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

Effects on foetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

2-Ethyl-4-methylimidazole:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

Effects on foetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

2-Methylpentane-1,5-diamine:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

4-Methylimidazole:

Effects on fertility	:	Test Type: Reproduction/Developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: positive Remarks: Based on data from similar materials
Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Result: positive Remarks: Based on data from similar materials
Reproductive toxicity - Assessment	:	Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

STOT - single exposure

Not classified based on available information.

Components:

2-Methylpentane-1,5-diamine:

Assessment	:	May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Components:

Cristobalite:

Exposure routes	:	inhalation (dust/mist/fume)
Target Organs	:	Lungs
Assessment	:	Shown to produce significant health effects in animals at concentrations of 0.02 mg/l/6h/d or less.

Repeated dose toxicity

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Species	:	Rat
NOAEL	:	600 mg/kg
Application Route	:	Ingestion
Exposure time	:	59 - 62 Days
Method	:	OPPTS 870.3650

2,4,6-Tris(dimethylaminomethyl)phenol:

Species	:	Rat

NOAEL	:	15 mg/kg
Application Route	:	Ingestion
Exposure time	:	43 Days
Method	:	OECD Test Guideline 422

2-Ethyl-4-methylimidazole:

Species	:	Rat
NOAEL	:	>= 150 mg/kg
Application Route	:	Ingestion
Exposure time	:	29 - 56 Days
Method	:	OECD Test Guideline 422

2-Methylpentane-1,5-diamine:

Species	:	Rat, male
NOAEL	:	581,3 mg/kg
Application Route	:	Ingestion
Exposure time	:	28 Days
Method	:	OECD Test Guideline 407

Cristobalite:

Species	:	Humans
LOAEL	:	0,053 mg/m3
Application Route	:	inhalation (dust/mist/fume)
Remarks	:	This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): > 215 - 464 mg/l Exposure time: 96 h

Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 218,16 mg/l
Exposure time: 48 h
Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae/aquatic plants : EC50 (Scenedesmus subspicatus): > 500 mg/l
Exposure time: 72 h

EC10 (Scenedesmus subspicatus): 5,4 mg/l
Exposure time: 72 h

Toxicity to microorganisms : NOEC (Pseudomonas putida): 125 mg/l
Exposure time: 17 h
Method: DIN 38 412 Part 8

2,4,6-Tris(dimethylaminomethyl)phenol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 180 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 84 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 6,25 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : NOEC : 2 mg/l
Exposure time: 28 d
Method: OECD Test Guideline 301D

2-Ethyl-4-methylimidazole:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 68,1 mg/l
Exposure time: 96 h
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 297,3 mg/l
Exposure time: 48 h
Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 124,8 mg/l
Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)): 56,7 mg/l
Exposure time: 72 h

Toxicity to microorganisms : EC50 : > 1,000 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209

2-Methylpentane-1,5-diamine:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 1.825 mg/l Exposure time: 96 h Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 50 mg/l Exposure time: 48 h Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials NOEC (Pseudokirchneriella subcapitata (green algae)): 10 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Toxicity to microorganisms	:	EC10 (Pseudomonas putida): 12.500 mg/l Exposure time: 20 h Test substance: Neutralised product Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 4,16 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211 Remarks: Based on data from similar materials

Bis[(dimethylamino)methyl]phenol:

Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): > 10 - 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials

4-Methylimidazole:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 34 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 180 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 2 mg/l Exposure time: 72 h

Cristobalite:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

12.2 Persistence and degradability

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 3 d
Method: OECD Test Guideline 301B

2,4,6-Tris(dimethylaminomethyl)phenol:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

2-Ethyl-4-methylimidazole:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 86 %
Exposure time: 28 d
Method: OECD Test Guideline 301A

2-Methylpentane-1,5-diamine:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

4-Methylimidazole:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 67 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
Remarks: Based on data from similar materials

12.3 Bioaccumulative potential

Components:

3,3'-Oxybis(ethyleneoxy)bis(propylamine):

Partition coefficient: n-octanol/water : log Pow: -1,25

2,4,6-Tris(dimethylaminomethyl)phenol:

Partition coefficient: n-octanol/water : log Pow: 0,219

2-Ethyl-4-methylimidazole:

Partition coefficient: n-octanol/water : log Pow: 1,13

2-Methylpentane-1,5-diamine:

Partition coefficient: n-octanol/water : log Pow: < 1

Bis[(dimethylamino)methyl]phenol:

Partition coefficient: n-octanol/water : log Pow: < 4
Remarks: Expert judgement

4-Methylimidazole:

Partition coefficient: n-octanol/water : log Pow: 0,23

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
Do not dispose of waste into sewer.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

Waste Code : The following Waste Codes are only suggestions:

used product
08 04 09, waste adhesives and sealants containing organic solvents or other hazardous substances

unused product
08 04 09, waste adhesives and sealants containing organic solvents or other hazardous substances

uncleaned packagings
15 01 10, packaging containing residues of or contaminated by hazardous substances

Acc. Packaging Act properly emptied packaging:
Properly emptied, non-contaminated packaging of non-hazardous products can be supplied to a system for the collection of sales packaging.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 3267

ADR : UN 3267

RID : UN 3267

IMDG : UN 3267

IATA : UN 3267

14.2 UN proper shipping name

ADN : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3,3'-Oxybis(ethyleneoxy)bis(propylamine), 2-Methylpentane-1,5-diamine)

ADR : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

(3,3'-Oxybis(ethyleneoxy)bis(propylamine), 2-Methylpentane-1,5-diamine)

RID : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3,3'-Oxybis(ethyleneoxy)bis(propylamine), 2-Methylpentane-1,5-diamine)

IMDG : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3,3'-Oxybis(ethyleneoxy)bis(propylamine), 2-Methylpentane-1,5-diamine)

IATA : Corrosive liquid, basic, organic, n.o.s. (3,3'-Oxybis(ethyleneoxy)bis(propylamine), 2-Methylpentane-1,5-diamine)

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADN	8	
ADR	8	
RID	8	
IMDG	8	
IATA	8	

14.4 Packing group

ADN

Packing group	:	II
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8

ADR

Packing group	:	II
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8
Tunnel restriction code	:	(E)

RID

Packing group	:	II
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8

IMDG

Packing group	:	II
Labels	:	8
EmS Code	:	F-A, S-B

IATA (Cargo)

Packing instruction (cargo aircraft)	:	855
Packing instruction (LQ)	:	Y840
Packing group	:	II

Labels	:	Corrosive

IATA (Passenger)

Packing instruction (passenger aircraft)	:	851
Packing instruction (LQ)	:	Y840
Packing group	:	II
Labels	:	Corrosive

14.5 Environmental hazards

ADN

Environmentally hazardous	:	no

ADR

Environmentally hazardous	:	no

RID

Environmentally hazardous	:	no

IMDG

Marine pollutant	:	no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Remarks	:	Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 75, 3 If you intend to use this product as tattoo ink, please contact your vendor. Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not.
REACH - Candidate List of Substances of Very High	:	Not applicable

Concern for Authorisation (Article 59).

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

Water hazard class (Germany) : WGK 1 slightly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) :
5.2.1: Total dust:
Not applicable
5.2.2: Inorganic substances in powdered form:
Not applicable
5.2.4: Inorganic substances in gaseous form:
Not applicable
5.2.5: Organic Substances:
Not applicable
5.2.7.1.1: Carcinogenic substance:
Not applicable
5.2.7.1.1: Quartz fine dust PM4:
others: 0,13 % Cristobalite
5.2.7.1.1: Formaldehyde:
Not applicable
5.2.7.1.1: fibres:
Not applicable
5.2.7.2: Poorly degradable, easily enrichable and highly toxic organic substances:
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 0 %, 0 g/l
Remarks: VOC content excluding water

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Other information	:	Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements

H301	:	Toxic if swallowed.
H302	:	Harmful if swallowed.
H311	:	Toxic in contact with skin.
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.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H350i	:	May cause cancer by inhalation.
H351	:	Suspected of causing cancer.
H361	:	Suspected of damaging fertility or the unborn child.
H372	:	Causes damage to organs through prolonged or repeated exposure if inhaled.
H412	:	Harmful to aquatic life with long lasting effects.
EUH071	:	Corrosive to the respiratory tract.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Carc.	:	Carcinogenicity
Eye Dam.	:	Serious eye damage
Repr.	:	Reproductive toxicity
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
2004/37/EC / TWA	:	Long term exposure limit
DE TRGS 900 / AGW	:	Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regula-

tion (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to compile the Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/

Classification of the mixture:		**Classification procedure:**
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

DE / EN