

Naftoseal MC-238 B-2 Base

Version: 5.0

Revision Date 24.02.2014

Print Date 14.04.2014

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

1.1 Product identifier

Trade name : Naftoseal MC-238 B-2 Base

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

Use of the Sub-stance/Mixture : Sealant
Recommended restrictions on use : None known.

1.3 Details of the supplier of the safety data sheet

Company : Chemetall GmbH
Trakehner Strasse 3
60487 Frankfurt a.M.
Lead Organisation : Surface Treatment
Telephone : +49(0)69 7165-0
Telefax : +49(0)69 7165-3567

Supplied by:
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2 Roman Park, Roman Way
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Telephone : +49(0)6971652832
E-mail address : msds.de@chemetall.com

1.4 Emergency telephone number

Emergency telephone number : +49(0)5326 51-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Dangerous for the environment R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard statements	: H412	Harmful to aquatic life with long lasting effects.
Precautionary statements	: Prevention: P260 P262 P273 P280	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Do not get in eyes, on skin, or on clothing. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.
	: Response: P308 + P313	IF exposed or concerned: Get medical advice/ attention.
	: Disposal: P501	Dispose of contents/ container to an approved waste disposal plant.

Labelling according to EC Directives (1999/45/EC)

R-phrases(s)	: R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	: S24/25 S37/39 S61	Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards

The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Chemical nature : polymers

Hazardous components

Chemical Name	CAS-No.	Classification	Classification	Concentration
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	EC-No. Registration number	(67/548/EEC)	(REGULATION (EC) No 1272/2008)	[%]
Polysulfide polymer; Molecular weight >1800	68611-50-7	R52/53	Aquatic Chronic 3; H412	>= 65 - < 80

WEL substance :				
Calcium carbonate	471-34-1 207-439-9 01-2119486795-18		Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.	>= 25 - < 50

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.
For the full text of the Notas mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : First-aid crew: Ensure self-protection.
Move out of dangerous area.
Take off contaminated clothing and shoes immediately.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids.
Consult a physician.
- If swallowed : Rinse mouth.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.
For specialist advice physicians should contact the Poisons

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Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Alcohol-resistant foam
Water spray

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : May form toxic gases on heating or in case of fire.
Carbon monoxide
Carbon dioxide (CO₂)
Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Further information : Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

See chapter 8 and 13

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Have eye wash bottle or eye rinse ready at the work place. To avoid risks to man and the environment, comply with the instructions for use.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection. Keep away from sources of ignition - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place. Store in a place accessible by authorized persons only. To maintain product quality, do not store in heat or direct sunlight.
- Storage temperature : < 26 °C

7.3 Specific end use(s)

- Specific use(s) : Sealant

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

DNEL/DMEL

- Calcium carbonate : End Use: DNEL, Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 10 mg/m³

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Respiratory protection : In case of insufficient ventilation wear suitable respiratory

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- equipment.
Recommended Filter type:
A-P2
- Hand protection : Neoprene gloves
butyl-rubber
Protective gloves complying with EN 374.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Eye protection : Safety glasses with side-shields conforming to EN166
- Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
- Hygiene measures : Take off contaminated clothing and shoes immediately.
Keep away from food, drink and animal feedingstuffs.
Wash hands before breaks and immediately after handling the product.
Avoid contact with skin and eyes.
Do not breathe vapour.
- Environmental exposure controls**
- General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : liquid paste
- Colour : beige
- Odour : like polysulfide
- Flash point : 230.0 °C
- Ignition temperature : 240.0 °C
- Auto-ignition temperature : not auto-flammable
- Water solubility : immiscible

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9.2 Other information

Explosivity : no explosion risk

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Keep away from open flames, hot surfaces and sources of ignition.
Strong sunlight for prolonged periods.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

Risk of decomposition. : No decomposition if used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Polysulfide polymer; Molecular weight >1800 : LD50: > 5,000 mg/kg
Species: rat

Calcium carbonate : LD50: 6,450 mg/kg
Species: rat

Acute dermal toxicity

Polysulfide polymer; Molecular weight >1800 : LD50: > 7,800 mg/kg

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lar weight >1800

Species: rat

Skin corrosion/irritation

Skin irritation : May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Eye irritation : May cause eye irritation with susceptible persons.

Respiratory or skin sensitisation

Sensitisation : No data available

Further information

Calcium carbonate : **Health injuries are not known or expected under normal use.**

SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicology studies for the product are not available.

Toxicity to fish

Polysulfide polymer; Molecular weight >1800 : LC50: > 1,000 mg/l
Exposure time: 96 h
Species: Leuciscus idus (Golden orfe)

Calcium carbonate : LC50: > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates

Polysulfide polymer; Molecular weight >1800 : EC50: 20 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Calcium carbonate : EC50: > 1 mg/l
Exposure time: 48 h
Species: Daphnia

Toxicity to algae

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Calcium carbonate : IC50: > 100 mg/l
Exposure time: 72 h

12.2 Persistence and degradability

Biodegradability : No data available

Biodegradability
Polysulfide polymer; Molecular weight >1800 : Not readily biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation : Bioaccumulation is unlikely.

12.4 Mobility in soil

Distribution among environmental compartments : No data available

12.5 Results of PBT and vPvB assessment

This mixture does not contain substances considered to be persistent, bioaccumulating and toxic (PBT)., This mixture does not contain substances considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Additional ecological information : slightly water endangering
Harmful to aquatic life with long lasting effects.
Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

Additional ecological information
Calcium carbonate : No special environmental precautions required.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.

Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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SECTION 14: Transport information

ADR

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

RID

Not dangerous goods

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Water contaminating class (Germany) : WGK 1 slightly water endangering
VWVWS A4

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.

15.2 Chemical Safety Assessment

For a mixture it is not mandatory to include an exposure scenario in the material safety data sheet. The necessary safety - related information is stated in the first 16 sections.

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Full text of H-Statements referred to under sections 2 and 3.

H412 Harmful to aquatic life with long lasting effects.

Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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Naftoseal MC-238 B-2 Hardener

Version 6.0

Revision Date 03.03.2011

Print Date 01.10.2013

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Naftoseal MC-238 B-2 Hardener

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

Use of the Sub-
stance/Mixture : Hardener
Recommended restrictions
on use : None known.

1.3 Details of the supplier of the safety data sheet

Company : Chemetall GmbH
Trakehner Strasse 3
60487 Frankfurt a.M.

Lead Organisation : Surface Treatment
Contact person :
Telephone : +49(0)69 7165-0
Telefax : +49(0)69 7165-3567

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Product safety :
Telephone : +49(0)6971652832
E-mail address : msds.de@chemetall.com

1.4 Emergency telephone number

Emergency telephone
number : +49(0)5326 51-0

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H302: Harmful if swallowed.
Eye irritation, Category 2 H319: Causes serious eye irritation.
Skin irritation, Category 2 H315: Causes skin irritation.

Classification (67/548/EEC, 1999/45/EC)

Harmful R20/22: Harmful by inhalation and if swallowed.
Irritant R36/38: Irritating to eyes and skin.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms

:



Signal word

: Warning

Hazard statements

: H302
H315
H319

Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.

Precautionary statements

: P403
Prevention:
P262
P280

Store in a well-ventilated place.

Do not get in eyes, on skin, or on clothing.
Wear protective gloves/ eye protection/ face protection.

Response:
P301 + P312

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Disposal:
P501

Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

- 1313-13-9 Manganese dioxide

Additional Labelling:

EUH208 Contains: Phthalic anhydride May produce an allergic reaction.

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms

:



Harmful

R-phrase(s)

: R20/22
R36/38

Harmful by inhalation and if swallowed.
Irritating to eyes and skin.

S-phrase(s)

: S 9
S24/25
S26

Keep container in a well-ventilated place.
Avoid contact with skin and eyes.
In case of contact with eyes, rinse immedi-

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S37/39

ately with plenty of water and seek medical advice.
Wear suitable gloves and eye/face protection.

Hazardous components which must be listed on the label:

- 1313-13-9 Manganese dioxide

Sensitising components : Phthalic anhydride
May produce an allergic reaction.

2.3 Other hazards

The information required is contained in this Material Safety Data Sheet.

3. Composition/information on ingredients

3.1 Substances

Identification: Naftoseal MC-238 B-2 Hardener

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Manganese dioxide	1313-13-9 215-202-6	Xn; R20/22	Acute Tox. 4; H332 Acute Tox. 4; H302	>= 25 - < 50
Sodium Hydroxide	1310-73-2 215-185-5 01-2119457892-27	C; R35	Skin Corr. 1A; H314	>= 0.5 - < 1
Phthalic anhydride	85-44-9 201-607-5	Xn; R22 Xi; R37/38-R41 R42/43	Acute Tox. 4; H302 STOT SE 3; H335 Skin Irrit. 2; H315 Eye Dam. 1; H318	>= 0.1 - < 1

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			Resp. Sens. 1; H334	
			Skin Sens. 1; H317	

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.
For the full text of the Notas mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures

- General advice : First-aid crew: Ensure self-protection.
Move out of dangerous area.
Take off contaminated clothing and shoes immediately.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids.
Consult a physician.
- If swallowed : Rinse mouth with water.
Do NOT induce vomiting.
Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.
For specialist advice physicians should contact the Poisons Information Service.

5. Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder

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Alcohol-resistant foam
Water spray

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : May form toxic gases on heating or in case of fire.

5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

See chapter 8 and 13

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Have eye wash bottle or eye rinse ready at the work place.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat.

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7.3 Specific end uses

Specific use(s) : Hardener

8. Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
respirator with A filter
A-P2

Hand protection : Protective gloves complying with EN 374.
Neoprene gloves
Rubber gloves
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection : Eye protection (EN 166)
Tightly fitting safety goggles

Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

Hygiene measures : Take off contaminated clothing and shoes immediately.
Keep away from food, drink and animal feedingstuffs.
Wash hands before breaks and immediately after handling the product.
Avoid contact with skin and eyes.
Do not breathe vapour.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: black
Flash point	: 199 °C
Ignition temperature	: 235 °C
Autoignition temperature	: not auto-flammable
Density	: 1.59 g/cm ³ at 20 °C
Water solubility	: immiscible

9.2 Other information

Explosivity	: no explosion risk
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10. Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	: None known.
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10.4 Conditions to avoid

Conditions to avoid	: Protect from frost, heat and sunlight.
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10.5 Incompatible materials

Materials to avoid	: Strong oxidizing agents
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10.6 Hazardous decomposition products

Risk of decomposition.	: No decomposition if stored and applied as directed.
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11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : Acute toxicity estimate: 1,138.96 mg/kg
Method: Calculation method

Acute oral toxicity
Manganese dioxide : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Phthalic anhydride : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Acute inhalation toxicity : Acute toxicity estimate: 25.06 mg/l
Method: Calculation method

Skin corrosion/irritation

Skin irritation : Irritating to skin.

Serious eye damage/eye irritation

Eye irritation : Irritating to eyes.

Respiratory or skin sensitization

Sensitisation : Contains one or more substance(s) classified as sensitising.

Human experience : Harmful if swallowed.

12. Ecological information

12.1 Toxicity

Toxicity to fish
Sodium Hydroxide : LC50: 125 mg/l
Exposure time: 96 h

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Species: *Gambusia affinis* (Mosquito fish)
LC50: 145 mg/l
Exposure time: 24 h
Species: *Poecilia reticulata*

Phthalic anhydride : LC50: 313 mg/l
Exposure time: 48 h
Species: *Leuciscus idus* (Golden orfe)

Toxicity to daphnia and other aquatic invertebrates.
Sodium Hydroxide : EC50: 76 mg/l
Exposure time: 24 h
Species: *Daphnia*

Toxicity to bacteria
Sodium Hydroxide : EC50: 22 mg/l
Exposure time: 15 min
Species: *Photobacterium phosphoreum*

12.2 Persistence and degradability

Biodegradability : no data available

12.3 Bioaccumulative potential

Bioaccumulation : no data available

12.4 Mobility in soil

Distribution among environmental compartments : no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Additional ecological information : slightly water endangering
Do not flush into surface water or sanitary sewer system.
Do not allow material to contaminate ground water system.

13. Disposal considerations

13.1 Waste treatment methods

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Product : Dispose of in accordance with local regulations.
Contaminated packaging : Dispose of as unused product.
Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

14. Transport information

ADR

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

RID

Not dangerous goods

15. Regulatory information

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

Water contaminating class (Germany) : WGK 1 slightly water endangering
VWVWS A4

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R35	Causes severe burns.
R36/38	Irritating to eyes and skin.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.
R42/43	May cause sensitization by inhalation and skin contact.

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.

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

1.1 Product identifier

Trade name : Naftoseal MC-238 B-2 Base

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

Use of the Sub-stance/Mixture : Sealant
Recommended restrictions on use : None known.

1.3 Details of the supplier of the safety data sheet

Company : Chemetall GmbH
Trakehner Strasse 3
60487 Frankfurt a.M.
Lead Organisation : Surface Treatment
Telephone : +49(0)69 7165-0
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T: 01675 432850
F: 01675 432870
E: info@silmid.com

Contact person product safety
Telephone : +49(0)6971652832
E-mail address : msds.de@chemetall.com

1.4 Emergency telephone number

Emergency telephone number : +49(0)5326 51-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Dangerous for the environment R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard statements	: H412	Harmful to aquatic life with long lasting effects.
Precautionary statements	: Prevention: P260 P262 P273 P280	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Do not get in eyes, on skin, or on clothing. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.
	: Response: P308 + P313	IF exposed or concerned: Get medical advice/ attention.
	: Disposal: P501	Dispose of contents/ container to an approved waste disposal plant.

Labelling according to EC Directives (1999/45/EC)

R-phrases(s)	: R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	: S24/25 S37/39 S61	Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards

The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Chemical nature : polymers

Hazardous components

Chemical Name	CAS-No.	Classification	Classification	Concentration
---------------	---------	----------------	----------------	---------------

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	EC-No. Registration number	(67/548/EEC)	(REGULATION (EC) No 1272/2008)	[%]
Polysulfide polymer; Molecular weight >1800	68611-50-7	R52/53	Aquatic Chronic 3; H412	>= 65 - < 80

WEL substance :				
Calcium carbonate	471-34-1 207-439-9 01-2119486795-18		Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.	>= 25 - < 50

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.
For the full text of the Notas mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : First-aid crew: Ensure self-protection.
Move out of dangerous area.
Take off contaminated clothing and shoes immediately.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids.
Consult a physician.
- If swallowed : Rinse mouth.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.
For specialist advice physicians should contact the Poisons

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Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Alcohol-resistant foam
Water spray

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : May form toxic gases on heating or in case of fire.
Carbon monoxide
Carbon dioxide (CO₂)
Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Further information : Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

See chapter 8 and 13

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Have eye wash bottle or eye rinse ready at the work place. To avoid risks to man and the environment, comply with the instructions for use.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection. Keep away from sources of ignition - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place. Store in a place accessible by authorized persons only. To maintain product quality, do not store in heat or direct sunlight.
- Storage temperature : < 26 °C

7.3 Specific end use(s)

- Specific use(s) : Sealant

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

DNEL/DMEL

- Calcium carbonate : End Use: DNEL, Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 10 mg/m³

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Respiratory protection : In case of insufficient ventilation wear suitable respiratory

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- equipment.
Recommended Filter type:
A-P2
- Hand protection : Neoprene gloves
butyl-rubber
Protective gloves complying with EN 374.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Eye protection : Safety glasses with side-shields conforming to EN166
- Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
- Hygiene measures : Take off contaminated clothing and shoes immediately.
Keep away from food, drink and animal feedingstuffs.
Wash hands before breaks and immediately after handling the product.
Avoid contact with skin and eyes.
Do not breathe vapour.
- Environmental exposure controls**
- General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : liquid paste
- Colour : beige
- Odour : like polysulfide
- Flash point : 230.0 °C
- Ignition temperature : 240.0 °C
- Auto-ignition temperature : not auto-flammable
- Water solubility : immiscible

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9.2 Other information

Explosivity : no explosion risk

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Keep away from open flames, hot surfaces and sources of ignition.
Strong sunlight for prolonged periods.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

Risk of decomposition. : No decomposition if used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Polysulfide polymer; Molecular weight >1800 : LD50: > 5,000 mg/kg
Species: rat

Calcium carbonate : LD50: 6,450 mg/kg
Species: rat

Acute dermal toxicity

Polysulfide polymer; Molecular weight >1800 : LD50: > 7,800 mg/kg

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lar weight >1800

Species: rat

Skin corrosion/irritation

Skin irritation : May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Eye irritation : May cause eye irritation with susceptible persons.

Respiratory or skin sensitisation

Sensitisation : No data available

Further information

Calcium carbonate : **Health injuries are not known or expected under normal use.**

SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicology studies for the product are not available.

Toxicity to fish

Polysulfide polymer; Molecular weight >1800 : LC50: > 1,000 mg/l
Exposure time: 96 h
Species: Leuciscus idus (Golden orfe)

Calcium carbonate : LC50: > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates

Polysulfide polymer; Molecular weight >1800 : EC50: 20 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Calcium carbonate : EC50: > 1 mg/l
Exposure time: 48 h
Species: Daphnia

Toxicity to algae

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Calcium carbonate : IC50: > 100 mg/l
Exposure time: 72 h

12.2 Persistence and degradability

Biodegradability : No data available

Biodegradability
Polysulfide polymer; Molecular weight >1800 : Not readily biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation : Bioaccumulation is unlikely.

12.4 Mobility in soil

Distribution among environmental compartments : No data available

12.5 Results of PBT and vPvB assessment

This mixture does not contain substances considered to be persistent, bioaccumulating and toxic (PBT)., This mixture does not contain substances considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Additional ecological information : slightly water endangering
Harmful to aquatic life with long lasting effects.
Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

Additional ecological information
Calcium carbonate : No special environmental precautions required.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.

Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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SECTION 14: Transport information

ADR

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

RID

Not dangerous goods

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Water contaminating class (Germany) : WGK 1 slightly water endangering
VWVWS A4

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.

15.2 Chemical Safety Assessment

For a mixture it is not mandatory to include an exposure scenario in the material safety data sheet. The necessary safety - related information is stated in the first 16 sections.

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Full text of H-Statements referred to under sections 2 and 3.

H412 Harmful to aquatic life with long lasting effects.

Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Naftoseal MC-238 B-2 Hardener

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

Use of the Sub-
stance/Mixture : Hardener
Recommended restrictions
on use : None known.

1.3 Details of the supplier of the safety data sheet

Company : Chemetall GmbH
Trakehner Strasse 3
60487 Frankfurt a.M.

Lead Organisation : Surface Treatment
Contact person :
Telephone : +49(0)69 7165-0
Telefax : +49(0)69 7165-3567

Supplied by:
Sil-Mid Limited
2 Roman Park, Roman Way
Coleshill, West Midlands
B46 1HG, UK
T: 01675 432850
F: 01675 432870
E: info@silmid.com

Product safety :
Telephone : +49(0)6971652832
E-mail address : msds.de@chemetall.com

1.4 Emergency telephone number

Emergency telephone
number : +49(0)5326 51-0

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H302: Harmful if swallowed.
Eye irritation, Category 2 H319: Causes serious eye irritation.
Skin irritation, Category 2 H315: Causes skin irritation.

Classification (67/548/EEC, 1999/45/EC)

Harmful R20/22: Harmful by inhalation and if swallowed.
Irritant R36/38: Irritating to eyes and skin.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms :



Signal word :

Warning

Hazard statements :

H302
H315
H319

Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.

Precautionary statements :

P403
Prevention:
P262
P280

Store in a well-ventilated place.

Do not get in eyes, on skin, or on clothing.
Wear protective gloves/ eye protection/ face protection.

Response:
P301 + P312

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Disposal:
P501

Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

- 1313-13-9 Manganese dioxide

Additional Labelling:

EUH208 Contains: Phthalic anhydride May produce an allergic reaction.

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms :



Harmful

R-phrase(s) :

R20/22
R36/38

Harmful by inhalation and if swallowed.
Irritating to eyes and skin.

S-phrase(s) :

S 9
S24/25
S26

Keep container in a well-ventilated place.
Avoid contact with skin and eyes.
In case of contact with eyes, rinse immedi-

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S37/39

ately with plenty of water and seek medical advice.

Wear suitable gloves and eye/face protection.

Hazardous components which must be listed on the label:

- 1313-13-9 Manganese dioxide

Sensitising components : Phthalic anhydride
May produce an allergic reaction.

2.3 Other hazards

The information required is contained in this Material Safety Data Sheet.

3. Composition/information on ingredients

3.1 Substances

Identification: Naftoseal MC-238 B-2 Hardener

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Manganese dioxide	1313-13-9 215-202-6	Xn; R20/22	Acute Tox. 4; H332 Acute Tox. 4; H302	>= 25 - < 50
Sodium Hydroxide	1310-73-2 215-185-5 01-2119457892-27	C; R35	Skin Corr. 1A; H314	>= 0.5 - < 1
Phthalic anhydride	85-44-9 201-607-5	Xn; R22 Xi; R37/38-R41 R42/43	Acute Tox. 4; H302 STOT SE 3; H335 Skin Irrit. 2; H315 Eye Dam. 1; H318	>= 0.1 - < 1

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			Resp. Sens. 1; H334	
			Skin Sens. 1; H317	

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.
For the full text of the Notas mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures

- General advice : First-aid crew: Ensure self-protection.
Move out of dangerous area.
Take off contaminated clothing and shoes immediately.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids.
Consult a physician.
- If swallowed : Rinse mouth with water.
Do NOT induce vomiting.
Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.
For specialist advice physicians should contact the Poisons Information Service.

5. Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder

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Alcohol-resistant foam
Water spray

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : May form toxic gases on heating or in case of fire.

5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

See chapter 8 and 13

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Have eye wash bottle or eye rinse ready at the work place.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place.
Keep away from heat.

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7.3 Specific end uses

Specific use(s) : Hardener

8. Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
respirator with A filter
A-P2

Hand protection : Protective gloves complying with EN 374.
Neoprene gloves
Rubber gloves
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection : Eye protection (EN 166)
Tightly fitting safety goggles

Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

Hygiene measures : Take off contaminated clothing and shoes immediately.
Keep away from food, drink and animal feedingstuffs.
Wash hands before breaks and immediately after handling the product.
Avoid contact with skin and eyes.
Do not breathe vapour.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: black
Flash point	: 199 °C
Ignition temperature	: 235 °C
Autoignition temperature	: not auto-flammable
Density	: 1.59 g/cm ³ at 20 °C
Water solubility	: immiscible

9.2 Other information

Explosivity	: no explosion risk
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10. Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	: None known.
---------------------	---------------

10.4 Conditions to avoid

Conditions to avoid	: Protect from frost, heat and sunlight.
---------------------	--

10.5 Incompatible materials

Materials to avoid	: Strong oxidizing agents
--------------------	---------------------------

10.6 Hazardous decomposition products

Risk of decomposition.	: No decomposition if stored and applied as directed.
------------------------	---

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11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : Acute toxicity estimate: 1,138.96 mg/kg
Method: Calculation method

Acute oral toxicity
Manganese dioxide : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Phthalic anhydride : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Acute inhalation toxicity : Acute toxicity estimate: 25.06 mg/l
Method: Calculation method

Skin corrosion/irritation

Skin irritation : Irritating to skin.

Serious eye damage/eye irritation

Eye irritation : Irritating to eyes.

Respiratory or skin sensitization

Sensitisation : Contains one or more substance(s) classified as sensitising.

Human experience : Harmful if swallowed.

12. Ecological information

12.1 Toxicity

Toxicity to fish
Sodium Hydroxide : LC50: 125 mg/l
Exposure time: 96 h

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Species: *Gambusia affinis* (Mosquito fish)
LC50: 145 mg/l
Exposure time: 24 h
Species: *Poecilia reticulata*
Phthalic anhydride : LC50: 313 mg/l
Exposure time: 48 h
Species: *Leuciscus idus* (Golden orfe)
Toxicity to daphnia and other aquatic invertebrates.
Sodium Hydroxide : EC50: 76 mg/l
Exposure time: 24 h
Species: *Daphnia*
Toxicity to bacteria
Sodium Hydroxide : EC50: 22 mg/l
Exposure time: 15 min
Species: *Photobacterium phosphoreum*

12.2 Persistence and degradability

Biodegradability : no data available

12.3 Bioaccumulative potential

Bioaccumulation : no data available

12.4 Mobility in soil

Distribution among environmental compartments : no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Additional ecological information : slightly water endangering
Do not flush into surface water or sanitary sewer system.
Do not allow material to contaminate ground water system.

13. Disposal considerations

13.1 Waste treatment methods

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Product : Dispose of in accordance with local regulations.
Contaminated packaging : Dispose of as unused product.
Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

14. Transport information

ADR

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

RID

Not dangerous goods

15. Regulatory information

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

Water contaminating class : WGK 1 slightly water endangering
(Germany) VWVWS A4

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws. Regional or national implementations of GHS may not implement all hazard classes and categories.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

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R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R35	Causes severe burns.
R36/38	Irritating to eyes and skin.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.
R42/43	May cause sensitization by inhalation and skin contact.

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.