

#### 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-: Sealant stance/Mixture Recommended restrictions : None known. on use 1.3 Details of the supplier of the safety data sheet Company : Chemetall GmbH Supplied by: Trakehner Strasse 3 Sil-Mid Limited 2 Roman Park, Roman Way 60487 Frankfurt a.M. Coleshill, West Midlands Lead Organisation : Surface Treatment B46 1HG, UK Telephone : +49(0)69 7165-0 T: 01675 432850 F: 01675 432870 Telefax : +49(0)69 7165-3567 F. 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 : +49(0)5326 51-0 number **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) 1/11 - EN



# Naftoseal MC-238 B-2 Base

Hazard statements       :       H412       Harmful to aquatic life with long lasting effects.         Precautionary statements       :       Prevention: P260       Do not breathe dust/fume/gas/mist/va- pours/spray.         P262       Do not get in eyes, on skin, or on tothing. P273       Avoid release to the environment. P280       Wear protective gloves/ protective clothing/ eye protection/ face protection.         Response: P308 + P313       IF exposed or concerned: Get medical ad- vice/ attention.       Disposal         Disposal: P501       Dispose of contents/ container to an ap- proved waste disposal plant.         Labelling according to EC Directives (1999/45/EC)         R-phrase(s)       :       R52/53         Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.       Sector advice and eye/face protec- tion.         S-phrase(s)       :       S24/25       Avoid ontact with skin and eyes.         S37/39       Wear suitable gloves and eye/face protec- tion.       Set         S41       Avoid release to the environment. Refer to special instructions/ Safety data sheets.         S Other hazards       The information required is contained in this Material Safety Data Sheet.         ECTION 3: Composition/information on ingredients       1         1 Substances not applicable       :       polymers         Hazardous components       :       :	ersion: 5.0		Revision Date	24.02.2014	Pr	int Date 14.04.20
P260       Do not breathe dust/ fume/ gas/ mist/ va-pours/ spray.         P262       Do not get in eyes, on skin, or on clothing.         P273       Avoid release to the environment.         P280       Wear protective gloves/ protective clothing/ eye protection/ face protection.         Response:       P308 + P313         P308 + P313       IF exposed or concerned: Get medical ad- vice/ attention.         Disposal:       P501         Dispose of contents/ container to an ap- proved waste disposal plant.         Kephrase(s)       :         R-phrase(s)       :         S-phrase(s)       :         S-phrase(s)       :         S24/25       Avoid contact with skin and eyes.         S37/39       Wear suitable gloves and eye/face protec- tion.         S61       Avoid release to the environment. Refer to special instructions/ Safety data sheets.         SOther hazards       The information required is contained in this Material Safety Data Sheet.         ECTION 3: Composition/information on ingredients       1         Substances       not applicable         2 Mixtures       :         Chemical nature       : polymers         Hazardous components       : Classification         Chemical Name       CAS-No.       Classification       Classification     <	Hazard statements	:	H412		aquatic life with lo	ng lasting ef-
R-phrase(s)       :       R52/53       Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.         S-phrase(s)       :       S24/25       Avoid contact with skin and eyes.         S-phrase(s)       :       S24/25       Avoid contact with skin and eyes.         S37/39       Wear suitable gloves and eye/face protection.       S61       Avoid release to the environment. Refer to special instructions/ Safety data sheets.         3 Other hazards       The information required is contained in this Material Safety Data Sheet.       Safety data sheets.         ECTION 3: Composition/information on ingredients       1       Substances         not applicable       2       Mixtures         Chemical nature       :       polymers         Hazardous components       CAS-No.       Classification       Concentration	Precautionary statements	:	P260 P262 P273 P280 <b>Response:</b> P308 + P313 <b>Disposal:</b>	pours/ spra Do not get i Avoid relea Wear prote eye protect IF exposed vice/ attenti Dispose of	y. n eyes, on skin, o se to the environn ctive gloves/ prote ion/ face protectio or concerned: Ge on. contents/ containe	or on clothing. nent. ective clothing/ n. et medical ad-
Iong-term adverse effects in the aquatic environment.         S-phrase(s)       : S24/25       Avoid contact with skin and eyes.         S37/39       Wear suitable gloves and eye/face protection.         S61       Avoid release to the environment. Refer to special instructions/ Safety data sheets.         3 Other hazards       The information required is contained in this Material Safety Data Sheet.         ECTION 3: Composition/information on ingredients       1         1 Substances       not applicable         2 Mixtures       Chemical nature       : polymers         Hazardous components       CAS-No.       Classification       Concentration			-	•		
S37/39       Wear suitable gloves and eye/face protection.         S61       Avoid release to the environment. Refer to special instructions/ Safety data sheets.         3 Other hazards       The information required is contained in this Material Safety Data Sheet.         ECTION 3: Composition/information on ingredients       I Substances         not applicable       Mixtures         Chemical nature       : polymers         Hazardous components       Classification       Concentration	R-phrase(s)	:	: R52/53	long-term	adverse effects in	
S61       Avoid release to the environment. Refer to special instructions/ Safety data sheets.         3 Other hazards       The information required is contained in this Material Safety Data Sheet.         ECTION 3: Composition/information on ingredients       I         1 Substances       not applicable         2 Mixtures       Chemical nature : polymers         Hazardous components       Classification         Chemical Name       CAS-No.	S-phrase(s)	:		Wear suita		
The information required is contained in this Material Safety Data Sheet.         ECTION 3: Composition/information on ingredients         1 Substances         not applicable         2 Mixtures         Chemical nature       : polymers         Hazardous components         Chemical Name       CAS-No.         Classification       Classification			S61	Avoid relea		
not applicable 2 Mixtures Chemical nature : polymers Hazardous components Chemical Name CAS-No. Classification Classification Concentration	The information required is				a Sheet.	
2 Mixtures         Chemical nature       : polymers         Hazardous components         Chemical Name       CAS-No.         Classification       Classification	1 Substances					
Chemical nature       : polymers         Hazardous components       Chemical Name       CAS-No.       Classification       Classification	not applicable					
Hazardous components         Chemical Name       CAS-No.       Classification       Classification	2 Mixtures					
Chemical Name CAS-No. Classification Classification Concentration	Chemical nature	:	polymers			
Chemical Name CAS-No. Classification Classification Concentration	Hazardous components					
2/11		CA	AS-No. C	lassification	Classification	Concentration



# Naftoseal MC-238 B-2 Base

Version: 5.0

Revision Date 24.02.2014

Print Date 14.04.2014

	EC-No. Registration num- ber	(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 hazard- ous substance or mixture ac- cording to Reg- ulation (EC) No. 1272/2008.	>= 25 - < 50
For the full text of the R- For the full text of the H- For the full text of the No	Statements mention	ed in this Section,	see Section 16.	
CTION 4: First aid me	asures			
Description of first aid I	measures			
Description of first aid I General advice	: First-aid c Move out	rew: Ensure self-pi of dangerous area ontaminated clothii		ediately.
-	: First-aid c Move out Take off c : Move to fr	of dangerous area. ontaminated clothin	ng and shoes imme	ediately.
General advice	<ul> <li>First-aid c Move out Take off c</li> <li>Move to fr If sympton</li> <li>Wash off v</li> </ul>	of dangerous area. ontaminated clothin esh air.	ng and shoes imme nysician. ty of water.	ediately.
General advice	<ul> <li>First-aid c Move out Take off c</li> <li>Move to fr If sympton</li> <li>Wash off v If sympton</li> </ul>	of dangerous area. ontaminated clothin esh air. ns persist, call a ph with soap and plen ns persist, call a ph nediately with plent	ng and shoes imme nysician. ty of water.	
General advice If inhaled In case of skin contact	<ul> <li>First-aid c Move out Take off c</li> <li>Move to fr If sympton</li> <li>Wash off v If sympton</li> <li>Rinse imm Consult a</li> <li>Rinse mout</li> </ul>	of dangerous area ontaminated clothin esh air. ns persist, call a ph with soap and plen ns persist, call a ph nediately with plent physician.	ng and shoes imme hysician. hysician. hysician. y of water, also une	
General advice If inhaled In case of skin contact In case of eye contact	<ul> <li>First-aid c Move out Take off c</li> <li>Move to fr If sympton</li> <li>Wash off v If sympton</li> <li>Rinse imm Consult a</li> <li>Rinse mov If sympton</li> </ul>	of dangerous area ontaminated clothin esh air. ns persist, call a ph with soap and plen ns persist, call a ph nediately with plent physician. uth. ns persist, call a ph	ng and shoes imme hysician. ty of water. hysician. y of water, also une	
General advice If inhaled In case of skin contact In case of eye contact If swallowed	<ul> <li>First-aid c Move out Take off c</li> <li>Move to fr If sympton</li> <li>Wash off v If sympton</li> <li>Rinse imm Consult a</li> <li>Rinse mou If sympton</li> </ul>	of dangerous area ontaminated clothin esh air. ns persist, call a ph with soap and plen ns persist, call a ph nediately with plent physician. uth. ns persist, call a ph	ng and shoes imme hysician. ty of water. hysician. y of water, also une	
General advice If inhaled In case of skin contact In case of eye contact If swallowed	<ul> <li>First-aid c Move out Take off c</li> <li>Move to fr If sympton</li> <li>Wash off v If sympton</li> <li>Rinse imm Consult a</li> <li>Rinse mou If sympton</li> <li>Rinse mou If sympton</li> </ul>	of dangerous area. ontaminated clothin esh air. ns persist, call a ph with soap and plen ns persist, call a ph nediately with plent physician. uth. ns persist, call a ph <b>h acute and delay</b> ation available.	ng and shoes imme hysician. hysician. y of water, also une hysician.	
General advice If inhaled In case of skin contact In case of eye contact If swallowed Most important sympto Symptoms	<ul> <li>First-aid c Move out Take off c</li> <li>Move to fr If sympton</li> <li>Wash off v If sympton</li> <li>Rinse imm Consult a</li> <li>Rinse mou If sympton</li> <li>Rinse mou</li> <li>sympton</li> <li>Mo information</li> <li>Treat sym</li> </ul>	of dangerous area. ontaminated clothin esh air. ns persist, call a ph with soap and plen ns persist, call a ph nediately with plent physician. uth. ns persist, call a ph <b>h acute and delay</b> ation available. <b>ion and special tr</b> ptomatically.	ng and shoes imme hysician. hysician. y of water, also une hysician.	der the eyelids.
General advice If inhaled In case of skin contact In case of eye contact If swallowed Most important sympto Symptoms Indication of any immed	<ul> <li>First-aid c Move out Take off c</li> <li>Move to fr If sympton</li> <li>Wash off v If sympton</li> <li>Rinse imm Consult a</li> <li>Rinse mou If sympton</li> <li>Rinse mou</li> <li>sympton</li> <li>Mo information</li> <li>Treat sym</li> </ul>	of dangerous area. ontaminated clothin esh air. ns persist, call a ph with soap and plen ns persist, call a ph nediately with plent physician. uth. ns persist, call a ph <b>h acute and delay</b> ation available. <b>ion and special tr</b> ptomatically.	ng and shoes imme hysician. ty of water. hysician. y of water, also und hysician. red eatment needed	der the eyelids.



Version: 5.0	Revision Date 24.02.2014	Print Date 14.04.20
	Information Service.	
SECTION 5: Firefighting meas	ures	
5.1 Extinguishing media		
Suitable extinguishing media	: Carbon dioxide (CO2) Dry powder Alcohol-resistant foam Water spray	
Unsuitable extinguishing media 5.2 Special hazards arising from t	: High volume water jet	
Specific hazards during fire- fighting	<ul> <li>May form toxic gases on heating or in Carbon monoxide Carbon dioxide (CO2) Sulphur oxides</li> </ul>	n case of fire.
5.3 Advice for firefighters		
for firefighters	: In the event of fire, wear self-contained	
Further information	: Use water spray to cool unopened co	ontainers.
SECTION 6: Accidental release	e measures	
6.1 Personal precautions, protect	ive equipment and emergency proced	lures
Personal precautions	: Wear personal protective equipment.	
6.2 Environmental precautions		
Environmental precautions	: Do not flush into surface water or sar Avoid subsoil penetration.	nitary sewer system.
6.3 Methods and materials for co	ntainment and cleaning up	
Methods for cleaning up	: Ensure adequate ventilation. Contain spillage, soak up with non-commaterial, (e.g. sand, earth, diatomace and transfer to a container for disposentional regulations (see section 13).	eous earth, vermiculite) al according to local /
6.4 Reference to other sections		
See chapter 8 and 13		
	4 / 11	-



# Naftoseal MC-238 B-2 Base

Version: 5.0

Revision Date 24.02.2014

Print Date 14.04.2014

SECTION 7: Handling and sto	orage
7.1 Precautions for safe handling	g
Advice on safe handling	<ul> <li>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.</li> </ul>
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 sun- light.
Storage temperature	: <26 °C
7.3 Specific end use(s)	
is specific end use(s)	
Specific use(s)	: Sealant
Specific use(s) SECTION 8: Exposure contro	
Specific use(s) SECTION 8: Exposure contro B.1 Control parameters	
Specific use(s) SECTION 8: Exposure contro B.1 Control parameters	Is/personal protection
Specific use(s) SECTION 8: Exposure contro 3.1 Control parameters Contains no substances with o DNEL/DMEL Calcium carbonate	Is/personal protection occupational exposure limit values. : End Use: DNEL, Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects
Specific use(s) SECTION 8: Exposure contro B.1 Control parameters Contains no substances with o DNEL/DMEL	Is/personal protection occupational exposure limit values. : End Use: DNEL, Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects
Specific use(s) SECTION 8: Exposure contro 3.1 Control parameters Contains no substances with o DNEL/DMEL Calcium carbonate 3.2 Exposure controls	Is/personal protection occupational exposure limit values. : End Use: DNEL, Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 10 mg/m3
Specific use(s) SECTION 8: Exposure contro 3.1 Control parameters Contains no substances with o DNEL/DMEL Calcium carbonate 3.2 Exposure controls Engineering measures	Is/personal protection occupational exposure limit values. : End Use: DNEL, Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 10 mg/m3



#### Naftoseal MC-238 B-2 Base Version: 5.0 Revision Date 24 02 2014 Print Date 14.04.2014 equipment. Recommended Filter type: A-P2 Neoprene gloves Hand protection : 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) : Take off contaminated clothing and shoes immediately. Hygiene measures 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 : liquid paste Appearance Colour : beige Odour : like polysulfide Flash point : 230.0 °C Ignition temperature : 240.0 °C Auto-ignition temperature : not auto-flammable Water solubility : immiscible 6/11 - EN

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006



Version: 5.0	Revision Date 24.02.2014	Print Date 14.04.201
9.2 Other information		
Explosivity	: no explosion risk	
SECTION 10: Stability and read	activity	
10.1 Reactivity		
No dangerous reaction knowr	under conditions of normal use.	
10.2 Chemical stability		
Stable under normal conditior 10.3 Possibility of hazardous rea	-	
Hazardous reactions	: None known.	
10.4 Conditions to avoid		
Conditions to avoid	: Keep away from open flames, hot su ignition. Strong sunlight for prolonged period	
10.5 Incompatible materials		
Materials to avoid	: Strong oxidizing agents	
10.6 Hazardous decomposition	products	
Risk of decomposition.	: No decomposition if used as directed	d.
SECTION 11: Toxicological ir	formation	
11.1 Information on toxicologica	I effects	
Acute toxicity		
Acute oral toxicity Polysulfide polymer; Molecu- lar weight >1800	: LD50: > 5,000 mg/kg Species: rat	
Calcium carbonate	: LD50: 6,450 mg/kg Species: rat	
Acute dermal toxicity Polysulfide polymer; Molecu-	: LD50: > 7,800 mg/kg	
	7/11	



# Naftoseal MC-238 B-2 Base

ersion: 5.0	Revision Date 24.02.2014	Print Date 14.04.201
lar weight >1800	Species: rat	
-		
Skin corrosion/irritation	<b>NA</b>	1
Skin irritation	: May cause skin irritation in susceptib	ole persons.
Serious eye damage/eye ir	ritation	
Eye irritation	: May cause eye irritation with suscept	tible persons.
Respiratory or skin sensiti	isation	
Sensitisation	: No data available	
Further information Calcium carbonate	: Health injuries are not known or ex use.	xpected under normal
ECTION 12: Ecological info	ormation	
ECTION 12: Ecological info 2.1 Toxicity Ecotoxicology studies for the		
2.1 Toxicity	e product are not available.	э)
2.1 Toxicity Ecotoxicology studies for the Toxicity to fish Polysulfide polymer; Molecu	e product are not available. I- : LC50: > 1,000 mg/l Exposure time: 96 h	e)
2.1 Toxicity Ecotoxicology studies for the Toxicity to fish Polysulfide polymer; Molecu lar weight >1800	<ul> <li>product are not available.</li> <li>i- : LC50: &gt; 1,000 mg/l Exposure time: 96 h Species: Leuciscus idus (Golden orfe</li> <li>: LC50: &gt; 100 mg/l Exposure time: 96 h</li> </ul>	
2.1 Toxicity Ecotoxicology studies for the Toxicity to fish Polysulfide polymer; Molecu lar weight >1800 Calcium carbonate Toxicity to daphnia and othe Polysulfide polymer; Molecu	<ul> <li>product are not available.</li> <li>i- : LC50: &gt; 1,000 mg/l Exposure time: 96 h Species: Leuciscus idus (Golden orfe</li> <li>: LC50: &gt; 100 mg/l Exposure time: 96 h</li> <li>er aquatic invertebrates</li> <li>i- : EC50: 20 mg/l Exposure time: 48 h</li> </ul>	
2.1 Toxicity Ecotoxicology studies for the Toxicity to fish Polysulfide polymer; Molecu lar weight >1800 Calcium carbonate Toxicity to daphnia and othe Polysulfide polymer; Molecu lar weight >1800	e product are not available. - : LC50: > 1,000 mg/l Exposure time: 96 h Species: Leuciscus idus (Golden orfe : LC50: > 100 mg/l Exposure time: 96 h er aquatic invertebrates - : EC50: 20 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea : EC50: > 1 mg/l Exposure time: 48 h	
2.1 Toxicity Ecotoxicology studies for the Toxicity to fish Polysulfide polymer; Molecul lar weight >1800 Calcium carbonate Toxicity to daphnia and othe Polysulfide polymer; Molecul lar weight >1800 Calcium carbonate	e product are not available. - : LC50: > 1,000 mg/l Exposure time: 96 h Species: Leuciscus idus (Golden orfe : LC50: > 100 mg/l Exposure time: 96 h er aquatic invertebrates - : EC50: 20 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea : EC50: > 1 mg/l Exposure time: 48 h	



# Naftoseal MC-238 B-2 Base Version: 5.0 Revision Date 24 02 2014 Print Date 14.04.2014 Calcium carbonate : IC50: > 100 mg/l Exposure time: 72 h 12.2 Persistence and degradability : No data available Biodegradability Biodegradability Polysulfide polymer; Molecu- : Not readily biodegradable. lar weight >1800 12.3 Bioaccumulative potential Bioaccumulation : Bioaccumulation is unlikely. 12.4 Mobility in soil Distribution among environ-: No data available mental compartments 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 infor-: slightly water endangering mation 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. 9/11 - EN



# Naftoseal MC-238 B-2 Base

Version: 5.0

Revision Date 24.02.2014

Print Date 14.04.2014

## **SECTION 14: Transport information**

#### ADR

Not dangerous goods

#### ΙΑΤΑ

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 con- cern (Regulation (EC) No 1907/2006 (REACH), Article 57).	
Water contaminating class (Germany)	: WGK 1 slightly water endangering VWVWS A4	
Other regulations	<ul> <li>The product is classified and labelled in accordance with EC directives or respective national laws.</li> <li>Regional or national implementations of GHS may not implement all hazard classes and categories.</li> </ul>	

#### **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.

10/11



# Naftoseal MC-238 B-2 Base

Version: 5.0

Revision Date 24.02.2014

Print Date 14.04.2014

#### 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



Naftoseal MC-238 B-2	Hardener		
Version 6.0	Revision Date 03.03	.2011	Print Date 01.10.2013
1. Identification of the substa	ance/mixture and of the	e company/undertal	king
1.1 Product identifier			
Trade name	: Naftoseal MC-238 B-	2 Hardener	
1.2 Relevant identified uses of t	the substance or mixture	and uses advised ag	ainst
Use of the Sub- stance/Mixture Recommended restrictions on use	: Hardener : None known.		
1.3 Details of the supplier of the	e safety data sheet		
Company	: Chemetall GmbH Trakehner Strasse 3 60487 Frankfurt a.M.	Supplied by: Sil-Mid Limited 2 Roman Park, Roman Way	, )
Lead Organisation Contact person Telephone Telefax	<ul> <li>Surface Treatment</li> <li>+49(0)69 7165-0</li> <li>+49(0)69 7165-3567</li> </ul>	Coleshill, West Midlands B46 1HG, UK T: 01675 432850 F: 01675 432870 E: info@silmid.com	
Product safety Telephone E-mail address	: : +49(0)6971652832 : msds.de@chemetall.c	om	
1.4 Emergency telephone numb	ber		
Emergency telephone number	: +49(0)5326 51-0		
2. Hazards identification			
2.1 Classification of the substan			
Classification (REGULATIC			
Acute toxicity, Category 4 Eye irritation, Category 2 Skin irritation, Category 2	H319: Cau	mful if swallowed. Ises serious eye irritati Ises skin irritation.	on.
Classification (67/548/EEC,	1999/45/EC)		
Harmful Irritant		armful by inhalation an itating to eyes and ski	
2.2 Label elements			
Labelling (REGULATION (E			
	1 / 11		- EN



sion 6.0		Revision Date	03.03.2011	Print Date 01.10.2
Hazard pictograms	:			
Signal word	:	Warning		
Hazard statements	:	H302 H315 H319	Harmful if swallowed Causes skin irritatior Causes serious eye	).
Precautionary statements Hazardous components whi • 1313-13-9 Ma		P403 Prevention: P262 P280 Response: P301 + P312 P305 + P351 + Disposal: P501	Wear protective glov protection. IF SWALLOWED: Ca or doctor/ physician i P338 IF IN EYES: Rir ter for several minute lenses, if present and rinsing. Dispose of contents/ proved waste dispos	n skin, or on clothing. es/ eye protection/ face all a POISON CENTER f you feel unwell. ise cautiously with wa- es. Remove contact d easy to do. Continue container to an ap-
• 1313-13-9 Ma Additional Labelling:	ngar	iese dioxide		
EUH208 Contains: Phthalic	anhy	drideMay produc	ce an allergic reaction.	
Labelling according to EC	Dire	ectives (1999/45/	/EC)	
Hazard pictograms	:	Harmful		
R-phrase(s)	:	R20/22 R36/38	Harmful by inhalatic Irritating to eyes and	
		S 9	Keep container in a	



Revision	Date 03.03.2011	P	Print Date 01.10.2013
S37/39	advice.		
s which must be listed Manganese dioxide			
		ction.	
ed is contained in this	Material Safety Da	ta Sheet.	
I MC-238 B-2 Hardend			
CAS-No. EC-No. Registration num- ber	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
1313-13-9 215-202-6	Xn; R20/22	Acute Tox. 4; H332 Acute Tox. 4; H302	>= 25 - < 50
1310-73-2 215-185-5 01-2119457892-27	C; R35	Skin Corr. 1A; H314	>= 0.5 - < 1
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	>= 0.1 - < 1
	S37/39 s which must be listed Manganese dioxide s : Phthalic a May produ ed is contained in this ation on ingredients MC-238 B-2 Hardene MC-238 B-2 Hardene ts CAS-No. EC-No. Registration num- ber 1313-13-9 215-202-6 1310-73-2 215-202-6	S37/39advice. Wear suit tion.s which must be listed on the label: Manganese dioxidess : Phthalic anhydride May produce an allergic readed is contained in this Material Safety Daation on ingredientsat MC-238 B-2 Hardenerat MC-238 B-2 HardenerntsCAS-No. EC-No. Registration num- ber1313-13-9 215-202-61310-73-2 215-202-61310-73-2 215-185-5 01-2119457892-2785-44-9 201-607-5Xn; R22 Xi; R37/38-R41	ately with plenty of water an advice. S37/39S37/39Wear suitable gloves and e tion.s which must be listed on the label: Manganese dioxideManganese dioxides : Phthalic anhydride May produce an allergic reaction.add is contained in this Material Safety Data Sheet.tion on ingredientsadd KC-238 B-2 HardenerIntsCAS-No.Classification (67/548/EEC)Registration num- berXn; R20/22Acute Tox. 4; H3321310-73-2 215-202-6I 1310-73-2 215-185-5 01-2119457892-27Skin Corr. 1A; H314Registration num- (EC) No 1272/2008)1310-73-2 215-185-5 01-2119457892-27Skin Corr. 1A; H314Xn; R22 Xi; R37/38-R41 R42/43STOT SE 3; H335 Skin Irrit. 2;



Naftoseal MC-238 B-2	Hardener	
Version 6.0	Revision Date 03.03.2011	Print Date 01.10.2013
	H33	n Sens. 1;
For the full text of the H-Sta	rases mentioned in this Section, see Sect atements mentioned in this Section, see S s mentioned in this Section, see Section 1	ection 16.
4. First aid measures		
4.1 Description of first aid me	asures	
General advice	: First-aid crew: Ensure self-protect Move out of dangerous area. Take off contaminated clothing an	
If inhaled	: Move to fresh air. If symptoms persist, call a physicia	an.
In case of skin contact	: Wash off with soap and plenty of w If symptoms persist, call a physicia	
In case of eye contact	: Rinse immediately with plenty of w Consult a physician.	vater, also under the eyelids.
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 immediat	e medical attention and special treatm	ent needed
Treatment	: Treat symptomatically. For specialist advice physicians sh Information Service.	nould contact the Poisons
5. Fire-fighting measures		
5.1 Extinguishing media		
Suitable extinguishing med	ia : Carbon dioxide (CO2) Dry powder	
	4 / 11	<b>L</b> V
		- EN



Naftoseal MC-238 B-2 Ha	ardener	
Version 6.0	Revision Date 03.03.2011	Print Date 01.10.2013
	Alcohol-resistant foam Water spray	
Unsuitable extinguishing media	: High volume water jet	
5.2 Special hazards arising from t	he substance or mixture	
Specific hazards during fire fighting 5.3 Advice for firefighters	: May form toxic gases on heating or in	case of fire.
Special protective equipment for fire-fighters	: In the event of fire, wear self-containe	d breathing apparatus.
6. Accidental release measures	6	
6.1 Personal precautions, protecti	ive equipment and emergency procedu	ures
Personal precautions	: Wear personal protective equipment.	
6.2 Environmental precautions		
Environmental precautions	: Do not flush into surface water or san Avoid subsoil penetration.	itary sewer system.
6.3 Methods and materials for con	tainment and cleaning up	
Methods for cleaning up	: Ensure adequate ventilation. Contain spillage, soak up with non-co material, (e.g. sand, earth, diatomace and transfer to a container for disposa national regulations (see section 13).	ous earth, vermiculite)
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 Have eye wash bottle or eye rinse rea	
Advice on protection against fire and explosion	: Normal measures for preventive fire p	protection.
7.2 Conditions for safe storage, in	cluding any incompatibilities	
Requirements for storage areas and containers	: Keep containers tightly closed in a con Keep away from heat.	ol, well-ventilated place.
	5 / 11	
		- EN

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006



Naftoseal MC-238 B-2	Hardener	
Version 6.0	Revision Date 03.03.2011	Print Date 01.10.2013
7.3 Specific end uses		
Specific use(s)	: Hardener	
8. Exposure controls/perso	nal protection	
8.1 Control parameters		
8.2 Exposure controls		
Engineering measures		
Ensure adequate ventilation	, especially in confined areas.	
Personal protective equip	ment	
Respiratory protection	<ul> <li>In case of insufficient ventilation wea equipment. respirator with A filter A-P2</li> </ul>	r suitable respiratory
Hand protection	<ul> <li>Protective gloves complying with EN Neoprene gloves Rubber gloves</li> <li>Please observe the instructions rega breakthrough time which are provide gloves. Also take into consideration t tions under which the product is used cuts, abrasion, and the contact time.</li> </ul>	rding permeability and d by the supplier of the the specific local condi- d, such as the danger of
Eye protection	: Eye protection (EN 166) Tightly fitting safety goggles	
Skin and body protection	: Chemical resistant protective clothing 13034 (Type 6)	g according to DIN EN
Hygiene measures	<ul> <li>Take off contaminated clothing and s Keep away from food, drink and anin Wash hands before breaks and imme product.</li> <li>Avoid contact with skin and eyes.</li> <li>Do not breathe vapour.</li> </ul>	nal feedingstuffs.
Environmental exposure of	controls	
General advice	: Do not flush into surface water or san Avoid subsoil penetration.	nitary sewer system.
	6 / 11	
	0/11	- EN

SAFETY DATA SHEET according to Regulation (EC) No.	1907/2006	Chemetall expect more <sup>©</sup>
		expect more •
Naftoseal MC-238 B-2		
Version 6.0	Revision Date 03.03.2011	Print Date 01.10.2013
9. Physical and chemical pro	perties	
9.1 Information on basic physic	al and chemical properties	
Appearance	: liquid	
Colour	: black	
Flash point	: 199 °C	
Ignition temperature	: 235 °C	
Autoignition temperature	: not auto-flammable	
Density	: 1.59 g/cm3 at 20 °C	
Water solubility	: immiscible	
9.2 Other information		
Explosivity	: no explosion risk	
10. Stability and reactivity		
10.1 Reactivity		
No dangerous reaction know	n under conditions of normal use.	
10.2 Chemical stability		
Stable under normal conditio 10.3 Possibility of hazardous re		
Hazardous reactions	: None known.	
10.4 Conditions to avoid		
Conditions to avoid	: Protect from frost, heat and sur	nlight.
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.
	7 / 11	
		- EN

Γ



# Naftoseal MC-238 B-2 Hardener Version 6.0 Revision Date 03.03.2011 Print Date 01.10.2013 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 8/11 - EN



/ersion 6.0	Revision Date 03.03.2011       Print Date 01.7         Species: Gambusia affinis (Mosquito fish)	10.2013
	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	
2.2 Persistence and degradabi	lity	
Biodegradability	: no data available	
2.3 Bioaccumulative potential		
Bioaccumulation	: no data available	
2.4 Mobility in soil		
Distribution among environ- mental compartments 2.5 Results of PBT and vPvB a	: no data available	
no data available		
2.6 Other adverse effects		
Additional ecological infor- mation	<ul> <li>slightly water endangering</li> <li>Do not flush into surface water or sanitary sewer system.</li> <li>Do not allow material to contaminate ground water system.</li> </ul>	
3. Disposal considerations		
3.1 Waste treatment methods		
	9 / 11	- EN



	Hardener	
/ersion 6.0	Revision Date 03.03.2011	Print Date 01.10.201
Product	: Dispose of in accordance with local	regulations.
Contaminated packaging	: Dispose of as unused product.	
Waste Code	: Waste codes should be assigned b discussion with the waste disposal a	
4. Transport information		
ADR Not dangerous goods		
IATA Not dangerous goods		
IMDG Not dangerous goods		
RID		
Not dangerous goods		
5. Regulatory information 5.1 Safety, health and environ	mental regulations/legislation specific	for the substance or mixture
5. Regulatory information	mental regulations/legislation specific : WGK 1 slightly water endangering VWVWS A4	for the substance or mixture
<ul> <li>5. Regulatory information</li> <li>5.1 Safety, health and environ Water contaminating class</li> </ul>	: WGK 1 slightly water endangering	ed in accordance with EC vs. ns of GHS may not imple-
<ul> <li>5. Regulatory information</li> <li>5.1 Safety, health and environe Water contaminating class (Germany)</li> <li>Other regulations</li> <li>5.2 Chemical Safety Assessment</li> </ul>	<ul> <li>WGK 1 slightly water endangering VWVWS A4</li> <li>The product is classified and labelle directives or respective national law Regional or national implementation ment all hazard classes and catego</li> </ul>	ed in accordance with EC vs. ns of GHS may not imple-
<ul> <li>5. Regulatory information</li> <li>5.1 Safety, health and environe Water contaminating class (Germany)</li> <li>Other regulations</li> <li>5.2 Chemical Safety Assessment</li> </ul>	<ul> <li>WGK 1 slightly water endangering VWVWS A4</li> <li>The product is classified and labelle directives or respective national law Regional or national implementation ment all hazard classes and catego</li> </ul>	ed in accordance with EC vs. ns of GHS may not imple-
<ul> <li>5. Regulatory information</li> <li>5.1 Safety, health and environit Water contaminating class (Germany)</li> <li>Other regulations</li> <li>5.2 Chemical Safety Assessment A Chemical Safety Assessment</li> <li>6. Other information</li> </ul>	<ul> <li>WGK 1 slightly water endangering VWVWS A4</li> <li>The product is classified and labelled directives or respective national law Regional or national implementation ment all hazard classes and catego</li> <li>ent ent is not required for this substance.</li> </ul>	ed in accordance with EC vs. ns of GHS may not imple-
<ul> <li>5. Regulatory information</li> <li>5.1 Safety, health and environit Water contaminating class (Germany)</li> <li>Other regulations</li> <li>5.2 Chemical Safety Assessment A Chemical Safety Assessment</li> <li>6. Other information</li> </ul>	<ul> <li>WGK 1 slightly water endangering VWVWS A4</li> <li>The product is classified and labelle directives or respective national law Regional or national implementation ment all hazard classes and catego</li> </ul>	ed in accordance with EC vs. ns of GHS may not imple-
<ul> <li>5. Regulatory information</li> <li>5.1 Safety, health and environit Water contaminating class (Germany)</li> <li>Other regulations</li> <li>5.2 Chemical Safety Assessment A Chemical Safety Assessment</li> <li>6. Other information</li> </ul>	<ul> <li>WGK 1 slightly water endangering VWVWS A4</li> <li>The product is classified and labelled directives or respective national law Regional or national implementation ment all hazard classes and catego</li> </ul>	ed in accordance with EC vs. ns of GHS may not imple-



ersion 6.0	Revision Date 03.03.2011	Print Date 01.10.2013
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 co	ntact.
Full text of H-S	tatements referred to under sections 2 and 3.	
Full text of H-S H302	tatements referred to under sections 2 and 3. Harmful if swallowed.	
H302	Harmful if swallowed.	
H302 H314	Harmful if swallowed. Causes severe skin burns and eye damage.	
H302 H314 H315	Harmful if swallowed. Causes severe skin burns and eye damage. Causes skin irritation.	
H302 H314 H315 H317	Harmful if swallowed. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction.	
H302 H314 H315 H317 H318	Harmful if swallowed. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage.	
H302 H314 H315 H317 H318 H319	Harmful if swallowed. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye irritation.	ing difficulties if in-

#### **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.

- EN