Safety Data Sheet
Naftoseal MC-780 B-1/4 Base

1. Identification

Product identifier used on the label

Naftoseal MC-780 B-1/4 Base

Recommended use of the chemical and restriction on use
Recommended use*: Sealant
Unsuitable for use: Uses other than recommended

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
Chemetall U.S., Inc.
675 Central Avenue
New Providence, NJ 07974 – USA
+1 800 526-4473
sds.na-chemetall@basf.com

Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 800-424-9300, +1-703-527-3887

Other means of identification
Chemical family: organic compounds, polymers, pigment

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Aquatic Chronic	3	Hazardous to the aquatic environment - chronic

Hazard Statement:

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):
P273 Avoid release to the environment.

Precautionary Statements (Disposal):
P501 Dispose of contents and container to hazardous or special waste collection point.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Labeling of special preparations (GHS):
Contains formaldehyde.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Liquid polysulphide polymer with thiol end groups (MW>1800)
CAS Number: 68611-50-7
Content (W/W): >= 50.0 - < 75.0%
Synonym: No data available.

Titanium dioxide
CAS Number: 13463-67-7
Content (W/W): >= 15.0 - < 20.0%
Synonym: C.I. Pigment White 6

Liquid polysulphide polymer with thiol end groups (MW<1800)
CAS Number: 68611-50-7
Content (W/W): >= 15.0 - < 20.0%
Synonym: No data available.

sulfur
CAS Number: 7704-34-9
Content (W/W): >= 3.0 - < 5.0%
Synonym: Sulfur, precipitated, sublimed or colloidal

carbon black
CAS Number: 1333-86-4
Content (W/W): >= 0.3 - < 1.0%
Synonym: C.I. 77266

4. First-Aid Measures

Description of first aid measures

General advice:
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

If on skin:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

If in eyes:
If symptoms persist, seek medical advice. Contact lenses should be removed. Hold eyelids open and flush with copious amounts of clean, fresh water or a special eyewash solution.

If swallowed:
Do not induce vomiting. Rinse mouth thoroughly with water, seek medical attention. If adverse health effects develop seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Information on: carbon black
Symptoms: Overexposure may cause:, rhinitis, irritation of the mucous membranes, irritates the eyes and respiratory tract, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Information on: sulfur
Symptoms: Overexposure may cause:, convulsions, acidosis, pneumonia, lethargy, confusion, dyspnea, coughing, dizziness, lacrimation

Information on: Titanium dioxide
Symptoms: Overexposure may cause:, rhinitis, irritation of the mucous membranes, irritates the eyes and respiratory tract, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps
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Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

Note to physician

Antidote:	No known specific antidote.
Treatment:	Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture
Hazards during fire-fighting:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Advice for fire-fighters
Protective equipment for fire-fighting:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid breathing vapours. For non-emergency personnel: Use personal protective clothing. Ensure adequate ventilation. Keep away from sources of ignition. For emergency responders: Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Information regarding personal protective measures, see section 8.

Environmental precautions
Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.

Methods and material for containment and cleaning up
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for diposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

7. Handling and Storage

Precautions for safe handling
Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. The relevant fire protection measures should be noted.

Conditions for safe storage, including any incompatibilities

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: tinned carbon steel (Tinplate), Carbon steel (Iron), Stainless steel 1.4301 (V2), Polypropylene (PP), Polyethylenetherephtalate (PET), Low density polyethylene (LDPE), High density polyethylene (HDPE), Stove-lacquer EHD0022, Stove-lacquer R 78433

Further information on storage conditions: Keep container dry. Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions.

Storage stability:
Storage temperature: < 26 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Formaldehyde	ACGIH, US:	STEL value 0.3 ppm ;
	ACGIH, US:	TWA value 0.1 ppm ;
	OSHA, US:	STEL value 2 ppm ;
	OSHA, US:	OSHA Action level 0.5 ppm ;
	OSHA, US:	TWA value 0.75 ppm ;
carbon black	ACGIH, US:	TWA value 3 mg/m3 Inhalable fraction ;
	OSHA Z1:	PEL 3.5 mg/m3 ;
Titanium dioxide	OSHA Z1:	PEL 15 mg/m3 Total dust ;
	ACGIH, US:	TWA value 2.5 mg/m3 Respirable finescale particles ;
	ACGIH, US:	TWA value 0.2 mg/m3 Respirable nanoscale particles ;

Personal protective equipment

Respiratory protection:
Wear respiratory protection if ventilation is inadequate.

Hand protection:
Chemical resistant protective gloves (EN ISO 374-1), nitrile rubber (NBR) - 0.4 mm coating thickness, Performance level 6, corresponding to a breakthrough time of >480 min according to EN ISO 374-1, The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties)., The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid
Odour:	of mercaptans
Odour threshold:	No applicable information available.
Colour:	grey
pH value:	substance/mixture is non-soluble (in water)
Melting point:	not determined
Freezing point:	not determined
onset of boiling:	not determined
Boiling range:	not determined
Sublimation point:	No applicable information available.
Flash point:	> 95 °C
Flammability:	hardly combustible
Lower explosion limit:	not determined
Upper explosion limit:	No applicable information available.
Vapour pressure:	(20 °C) not determined
Density:	1.100 g/cm3 (20 °C)
Relative density:	No applicable information available.
Vapour density:	Heavier than air.
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	No applicable information available.
Viscosity, kinematic:	6.0 mm2/s (20 °C)
Solubility in water:	insoluble
Miscibility with water:	immiscible
Solubility (quantitative):	No applicable information available.
Solubility (qualitative):	No applicable information available.
Molar mass:	No applicable information available.
Evaporation rate:	No applicable information available.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
No hazardous reactions when stored and handled according to instructions.

Conditions to avoid
Avoid all sources of ignition: heat, sparks, open flame. Avoid heat. Avoid direct sunlight.

Incompatible materials
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous decomposition products

Decomposition products:
When exposed to high temperatures hazardous decomposition products such as carbon monoxide, carbon dioxide, smoke, oxides of nitrogen may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Based on available data, the classification criteria are not met.

Oral
Type of value: ATE
Value: > 2,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Inhalation
Type of value: ATE
Value: > 20 mg/l
The product has not been tested. The statement has been derived from the properties of the individual components.

Dermal
Type of value: ATE
Value: > 2,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment other acute effects
Assessment of STOT single:

Based on available data, the classification criteria are not met.

Irritation / corrosion
Assessment of irritating effects: Based on available data, the classification criteria are not met.

Information on: sulfur
Assessment of irritating effects: Skin contact causes irritation. Not irritating to the eyes.

Sensitization
Assessment of sensitization: Based on available data, the classification criteria are not met.

Aspiration Hazard
No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Based on available data, the classification criteria are not met.

Genetic toxicity
Assessment of mutagenicity: Based on available data, the classification criteria are not met.

Information on: carbon black
Assessment of mutagenicity: Results from a number of mutagenicity studies with microorganisms and mammalian cell culture are available. Taking into account all of the information, there is no indication that the substance is mutagenic. Based on the structure, there is a suspicion of a mutagenic effect.
The substance was genotoxic in a test with mammals. The effect may result from a secondary mechanism.

Carcinogenicity
Assessment of carcinogenicity: Based on available data, the classification criteria are not met.

Information on: carbon black
Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term animal studies in which the substance was given by inhalation in high concentrations, a carcinogenic effect was observed. A clear indication of an increased risk of cancer in humans has so far not been shown. No carcinogenic potential can be deduced from other studies with rats and mice.

Information on: Titanium dioxide
Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Tumors were only observed in rats after chronic inhalative exposure to high concentrations which caused sustained lung inflammation. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. Dermal exposure is not expected to be carcinogenic.

Reproductive toxicity

Assessment of reproduction toxicity: Based on available data, the classification criteria are not met.

Teratogenicity
Assessment of teratogenicity: Based on available data, the classification criteria are not met.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Harmful to aquatic life with long lasting effects. There are no test results available for this product. Do not allow to enter drains or waterways.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
No data available concerning biodegradation and elimination.

Bioaccumulative potential

Bioaccumulation potential
No data available.

Mobility in soil

Assessment transport between environmental compartments
No data available.

13. Disposal considerations

Waste disposal of substance:
Do not discharge into drains/surface waters/groundwater. Observe national and local legal requirements.

Container disposal:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport
USDOT
Not classified as a dangerous good under transport regulations

Sea transport
IMDG
Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO
Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK	CAS Number	Chemical name
NJ	7704-34-9	sulfur
	13463-67-7	Titanium dioxide
	1333-86-4	carbon black
PA	50-00-0	Formaldehyde
	1333-86-4	carbon black
	7704-34-9	sulfur
	13463-67-7	Titanium dioxide

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including TITANIUM DIOXIDE (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE), which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:
Health: 1 Fire: 1 Reactivity: 1 Special:

HMIS III rating
Health: 1 Flammability: 1 Physical hazard: 1

16. Other Information

SDS Prepared by:
Chemetall (now part of BASF Group) NA Product Regulations
SDS Prepared on: 2023/01/26

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.
END OF DATA SHEET

Safety Data Sheet
Naftoseal MC-780 B-1/2 Hardener (BULK)

1. Identification

Product identifier used on the label

Naftoseal MC-780 B-1/2 Hardener (BULK)

Recommended use of the chemical and restriction on use

Recommended use*: Hardener for coating materials or adhesives for industrial or professional use
Unsuitable for use: Uses other than recommended

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
Chemetall U.S., Inc.
675 Central Avenue
New Providence, NJ 07974 – USA
+1 800 526-4473
sds.na-chemetall@basf.com

Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 800-424-9300, +1-703-527-3887

Other means of identification

Chemical family: inorganic compounds, organic compounds

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Acute Tox.	4 (oral)	Acute toxicity
Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Resp. Sens.	1	Respiratory sensitization
Skin Sens.	1	Skin sensitization
STOT RE	1	Specific target organ toxicity — repeated

exposure

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H372	Causes damage to organs (Central nervous system) through prolonged or repeated exposure.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P260	Do not breathe mist or vapour or spray.
P264	Wash contaminated body parts thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P314	Get medical advice/attention if you feel unwell.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P330	Rinse mouth.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P337 + P313	If eye irritation persists: Get medical attention.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

manganese dioxide
CAS Number: 1313-13-9
Content (W/W): >= 50.0 - < 75.0%
Synonym: Manganese dioxide

sulfur
CAS Number: 7704-34-9
Content (W/W): >= 1.0 - < 3.0%
Synonym: Sulfur, precipitated, sublimed or colloidal

phthalic anhydride
CAS Number: 85-44-9
Content (W/W): >= 0.3 - < 1.0%
Synonym: 1,3-Isobenzofurandione; Phthalic anhydride

4. First-Aid Measures

Description of first aid measures

General advice:
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

If on skin:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

If in eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

If swallowed:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Information on: manganese dioxide
Symptoms: Overexposure may cause:, dyspnea, pneumonitis, fever, coughing

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Indication of any immediate medical attention and special treatment needed

Note to physician

Antidote:	No known specific antidote.
Treatment:	Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon oxides, sulfur oxides, phosphorus oxides, metal oxides
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Advice for fire-fighters

Protective equipment for fire-fighting:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours. For non-emergency personnel: Use personal protective clothing. Ensure adequate ventilation. Keep away from sources of ignition. For emergency responders: Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Information regarding personal protective measures, see section 8.

Environmental precautions

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.

Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

7. Handling and Storage

Precautions for safe handling
Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. The relevant fire protection measures should be noted.

Conditions for safe storage, including any incompatibilities
Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Polyethylenetherephtalate (PET), Polypropylene (PP), Carbon steel (Iron), tinned carbon steel (Tinplate)

Further information on storage conditions: Keep container dry. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions. Keep away from heat.

Storage stability:
Storage temperature: < 26 °C
Storage duration: 12 Months

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

phthalic anhydride	OSHA Z1:	PEL 2 ppm 12 mg/m3 ;
	ACGIH, US:	TWA value 0.002 mg/m3 Inhalable fraction and vapor ;
	ACGIH, US:	STEL value 0.005 mg/m3 Inhalable fraction and vapor ;
	ACGIH, US:	Skin Designation Inhalable fraction and vapor ; Danger of cutaneous absorption
	ACGIH, US:	Skin Designation Inhalable fraction and vapor ; Danger of cutaneous absorption

Personal protective equipment

Respiratory protection:
Respiratory protection required if exposure limit (if available) may be exceeded

Hand protection:
Chemical resistant protective gloves (EN ISO 374-1), nitrile rubber (NBR) - 0.4 mm coating thickness, butyl rubber gloves - material thickness: 0.5 mm, Performance level 6, corresponding to a

breakthrough time of >480 min according to EN ISO 374-1, The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties)., The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	No data available.	
Odour threshold:	No applicable information available.	
Colour:	brown	
pH value:	substance/mixture is non-soluble (in water)	
Melting point:	not determined	
Freezing point:	not determined	
onset of boiling:	not determined	
Boiling range:	not determined	
Sublimation point:	No applicable information available.	
Flash point:	> 99 °C	(ISO 3679)
Flammability:	hardly combustible	
Lower explosion limit:	not determined	
Upper explosion limit:	No applicable information available.	
Autoignition:	not determined	
Vapour pressure:	(20 °C) not determined	
Density:	1.700 g/cm3 (20 °C)	
Relative density:	No applicable information available. No applicable information available.	
Vapour density:	Heavier than air.	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	400,000 mPa.s Brookfield	
Solubility in water:	practically insoluble	
Miscibility with water:	immiscible	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	No applicable information available.	

Molar mass:	No applicable information available.
Evaporation rate:	No applicable information available.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
No hazardous reactions when stored and handled according to instructions.

Conditions to avoid
Avoid direct sunlight. Avoid heat.

Incompatible materials
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous decomposition products

Decomposition products:
Possible decomposition products: When exposed to high temperatures hazardous decomposition products such as carbon monoxide, carbon dioxide, smoke, oxides of nitrogen may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Of moderate toxicity after single ingestion.

Oral
Type of value: ATE
Value: 995 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: phthalic anhydride

Type of value: LD50
Species: rat (male)
Value: 1,530 mg/kg

Inhalation
Type of value: ATE
Value: 22 mg/l
The product has not been tested. The statement has been derived from the properties of the individual components.

Dermal
Type of value: ATE
Value: > 2,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment other acute effects
Assessment of STOT single:
Based on available data, the classification criteria are not met.

Irritation / corrosion
Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation.

Information on: phthalic anhydride
Assessment of irritating effects: Skin contact causes irritation. May cause severe damage to the eyes. EU-classification

Information on: sulfur
Assessment of irritating effects: Skin contact causes irritation. Not irritating to the eyes.

Sensitization
Assessment of sensitization: The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Information on: phthalic anhydride
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Aspiration Hazard
No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Repeated exposure to small quantities may affect certain organs.

Information on: manganese dioxide
Assessment of repeated dose toxicity: The substance may cause damage to the central nervous system after repeated inhalation.

Genetic toxicity
Assessment of mutagenicity: Based on available data, the classification criteria are not met.

Information on: manganese dioxide
Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was mutagenic in a mammalian cell culture test system. The substance was not mutagenic in a test with mammals.

Carcinogenicity
Assessment of carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity
Assessment of reproduction toxicity: Based on available data, the classification criteria are not met.

Teratogenicity
Assessment of teratogenicity: Based on available data, the classification criteria are not met.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
There are no test results available for this product. Do not allow to enter drains or waterways.
Based on available data, the classification criteria are not met.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
No data available concerning biodegradation and elimination.

Bioaccumulative potential

Bioaccumulation potential
No data available.

Mobility in soil

Assessment transport between environmental compartments
No data available.

13. Disposal considerations

Waste disposal of substance:
Do not discharge into drains/surface waters/groundwater. Observe national and local legal requirements.

Container disposal:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport
USDOT

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPCRA 313:

CAS Number	Chemical name
1313-13-9	manganese dioxide

State regulations

State RTK	CAS Number	Chemical name
NJ	7704-34-9	sulfur
PA	1313-13-9	manganese dioxide
	7704-34-9	sulfur
	68515-40-2	Benzyl-octyl-phthalate

NFPA Hazard codes:
Health: 2 Fire: 1 Reactivity: 1 Special:

HMIS III rating
Health: 2¤ Flammability: 1 Physical hazard: 1

16. Other Information

SDS Prepared by:
Chemetall (now part of BASF Group) NA Product Regulations
SDS Prepared on: 2023/12/20

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