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1. Identification

Product identifier used on the label

Naftoseal MC-780 B-1/2 Base

Recommended use of the chemical and restriction on use

Recommended use*: Sealant

Unsuitable for use: Uses other than recommended

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

Hazardous to the aquatic environment - chronic

Hazard Statement:

^{*} 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.

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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

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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

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

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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

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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: 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).

Eve protection:

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

Body protection:

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

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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- not applicable for mixtures

octanol/water (log Pow):

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):
Solubility (qualitative):
Molar mass:
Evaporation rate:

No applicable information available.
No applicable information available.
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

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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.

<u>Oral</u>

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:

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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

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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

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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.

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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

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

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Safety Data Sheet

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

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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.

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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.

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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

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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: $> 99 \,^{\circ}\text{C}$ (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- not applicable for mixtures

octanol/water (log Pow):

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.

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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

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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.

<u>Sensitization</u>

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.

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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.

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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

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:

<u>CAS Number</u> Chemical name manganese dioxide

State regulations

State RTK
NJCAS Number
7704-34-9Chemical name
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^m 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

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

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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.

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