



MERCHEM LIMITED

SAFETY DATA SHEET

MERCIDE NaMBT
MSDS No. 47/20.03.2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Product Identifier

| | |
|--------------|--------------------------------|
| Product Name | Mercide NaMBT |
| Synonym | Sodium 2-Mercaptobenzothiazole |

1.2 Use of the Substance/Mixture

| | |
|-----------------|--------------------------------|
| Identified uses | Biocide Corrosion inhibitor |
|-----------------|--------------------------------|

1.3 Manufacturer or supplier's details

| | |
|--|--|
| Company/Undertaking identification address | Merchem Limited Grove Centre, 44- Development Plot, Kalamassery, Cochin – 683 109, Kerala, India |
| Telephone | + 91-484-4089300 |
| Telefax | + 91-484-4089310 |
| E mail | mail@merchem.com |
| <u>Emergency Telephone Number</u> | |
| Emergency Telephone Number | + 91-484-4089300 |

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to EU directives 67/548/EEC or 1999/45/EC

R20/21/22
R36/37/38
R27
R50/53
R34

Classification according to REGULATION (EC) No. 1272/2008

Hazardous to the aquatic environment, long-term hazard Cat 1
Skin sensitization - category 1

EC Number: Not available

Annex 1 Index Number: Not available



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2.2 Label elements

Product Name:

Mercide NaMBT

Hazard pictograms



Signal Word

Warning

Hazard statements:

- H317: May cause an allergic skin reaction
- H410: Very toxic to aquatic life with long lasting effects.
- H314 : Causes severe skin burns and eye damage

Precautionary statements:

- | | |
|--------------------------------------|--|
| Precautionary statement – Prevention | <ul style="list-style-type: none"> P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P272 - Contaminated work clothing should not be allowed out of the workplace P280 - Wear protective gloves/protective clothing/eye protection/face protection P273 - Avoid release to the environment P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. |
|--------------------------------------|--|

Precautionary statement – Response

- P302 +P352 - IF ON SKIN: Wash with plenty of soap and water
- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
- P321 - Specific treatment (see supplemental first aid instructions on this label)
- P363 - Wash contaminated clothing before reuse
- P391 - Collect spillage
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
- P406 -Store in corrosive resistant/... container with a resistant inner liner.

Precautionary statement – Storage

- P405 - Store locked up

Precautionary statement – disposal

- P501 - Dispose of contents/container to an approved incineration plant

Other hazards : None Known

Note : For the full text of the R phrases, S phrases, and symbols mentioned in this Section, see Section 16



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Chemical description: Sodium 2-Mercaptobenzothiazole (active ingredient)

Composition/Information on ingredients

| Chemical Name | CAS No. | EC No. | Annex 1 Index Number | Weight % |
|--------------------------------|-----------|--------|----------------------|----------|
| Sodium 2-Mercaptobenzothiazole | 2492-26-4 | -- | -- | 50-55 |
| Water | 7732-18-5 | -- | -- | 45-50 |

SECTION 4: FIRST AID MEASURES

4.1 Description of first-aid measures

| | |
|-----------------------|---|
| General Advice | If symptoms persist, call a physician. Show this material safety data sheet to the doctor in attendance. Treat symptomatically. Use of alcoholic beverages may enhance toxic effects. In case of allergic reaction after exposure, any future exposure must be avoided. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Remove contact lenses Obtain medical attention |
| Skin Contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Thoroughly clean shoes before reuse. If skin irritation persists, call a physician |
| Inhalation | Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. Immediate medical attention is required |
| Ingestion | Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting. Treat symptomatically. If swallowed, seek medical advice immediately and show this container or label. Loosen tight clothing such as collar, tie, belt and waistband. |



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4.2 Most important symptoms and effects, both acute and delayed

- Serious eye damage/eye irritation
- Irritating to respiratory system

4.3 Indication of immediate medical attention and special treatment needed

- No data available

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: : Use water spray, carbon dioxide, foam or dry powder

Extinguishing media which must not be used for safety reasons: : Not known

5.2 Specific hazards arising from the substance or mixture

Specific hazards

In a fire or if heated, a pressure increase will occur and the container may burst.

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

Specific methods

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

5.3 Protective Equipment and Precautions for Firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- Avoid direct contact with the product and inhalation of vapours from the hot product.
- Keep non essential personnel away.
- Ventilate closed spaces before entering.



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6.2 Environmental precautions

- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Stop leak if without risk. Move containers from spill area.
- Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container.
- Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

See section 7,8 &13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

- Put on appropriate personal protective equipment .
- Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.
- Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.
- Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids.
- Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

7.2 Conditions for safe storage, including any incompatibilities

- Store in accordance with local regulations.
- Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.
- Store in corrosive resistant container with a resistant inner liner. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end uses

No further relevant information available



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SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit values None

8.2 Exposure controls

Engineering Controls

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protective Equipment:

Eye/face Protection

Tightly fitting safety goggles or Face-shield

Skin Protection

Wear suitable protective clothing/equipment

Hand Protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Respiratory Protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------|--------------------------------------|
| Physical state | Liquid |
| Colour | Brownish Yellow |
| Odour | Not available |
| Boiling point/range | >100°C |
| Melting point/range | -6°C |
| Flash point | Product does not sustain combustion |
| Vapour pressure | 3.2kPa (24 mm Hg) [room temperature] |
| Solubility in water | Miscible |
| pH value | 9-11 |



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| | |
|---|------------------------------------|
| Flammability | No data available |
| Auto-ignition temperature | No data available |
| Explosive properties | Dust explosion hazard |
| Lower and upper Explosive (flammable) Limit | No data available |
| Specific gravity | 1.24-1.27 |
| Solubility | Soluble in the hot water, methanol |
| Partition coefficient (n-Octanol-water) | -0.46 |
| vapor density | No data available |
| Viscosity | No data available |
| Evaporation rate | No data available |

9.2 Other information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

See incompatible materials

10.2 Chemical stability

The product is stable when stored at room temperature in its original packaging. Stable under normal conditions of use, handling and transport.

10.3 Possibility of Hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Keep away from heat sources, sparks and flames.

10.5 Incompatible Materials

Oxidizing agents, strong acids .

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Through thermal decomposition ($T > 250^{\circ}\text{C}$) it may generate amines (aniline), hydrogen sulphide and by-products of mercaptans.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Informations on Toxicological effect

| | |
|------------------------------------|--|
| Acute oral toxicity LD50 (mg/kg) | 3,800 mg/kg (rat) |
| Acute dermal toxicity LD50 (mg/kg) | 5010 mg/kg (rabbit) |
| Organs affected/routes of exposure | Eyes, respiratory tract / Inhalation, contact. |
| Mutagenicity | No data available |
| Reproductive toxicity | No data available |
| Teratogenicity | No data available |



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Organs affected/routes of exposure

Eyes, respiratory tract / Inhalation, contact

Potential acute health effects

Eye contact

Causes serious eye damage.

Inhalation

May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard.

Skin contact

Causes severe burns. May cause an allergic skin reaction.

Ingestion

May cause burns to mouth, throat and stomach.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Toxicity to fish 96h-LC50 (Lepomis macrochirus): 1.3-2.4 mg/l

12.2 Mobility in soil
No data available

12.3 Persistence and degradability
No data available

12.4 Bioaccumulative Potential
No data available

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other adverse effects
No known significant effects or critical hazards.

12.7 Other information
Do not discharge product unmonitored into environment

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Method

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.



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Avoid dispersal of spilled material and runoff and contact with soil, waterways, drain sand sewers.

SECTION 14: TRANSPORT INFORMATION

14.1 Road Transport (ADR/RID/ADN)

| | |
|----------------------|--|
| ADR/RID class: | 8 |
| UN No. | 3267 |
| Packaging group: | II |
| Hazardous label | Hazardous for the environment |
| Proper shipping name | Corrosive liquid, basic, organic, n.o.s.(Sodium 2-mercaptobenzothiazole) |

14.2 Sea transport (IMDG)

| | |
|----------------------|--|
| IMO/IMDG class | 8 |
| Packaging group | II |
| UN No. | 3267 |
| Marine Pollutant | YES |
| Hazardous label | Hazardous for the environment |
| Proper shipping name | Corrosive liquid, basic, organic, n.o.s.(Sodium 2-mercaptobenzothiazole) |

14.3 Air Transport (ICAO/IATA)

| | |
|----------------------|--|
| Class | 8 |
| Packaging group | II |
| UN No. | 3267 |
| Proper shipping name | Corrosive liquid, basic, organic, n.o.s.(Sodium 2-mercaptobenzothiazole) |

14.4 Other information

No data available

14.5 Environmental Hazards

See section 14.1-14.3

14.6 Special precautions for user

No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: REGULATORY INFORMATION

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

Regulation 1907/2006 REGULATION (EC) No 1272/2008

Classification according to EU directives 67/548/EEC or 1999/45/EC



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15.2 Chemical safety assessment

No data available

SECTION 16: OTHER INFORMATION

Issue No. 2
Issue date 20.03.2015
Revision No. 0

Reason for revision Reviewed & revamped based on the guide lines of
Regulation (EC) No 1907/2006)

List of relevant R(isk)-phrase(s)

- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment .
- R34: Causes burns
- R20/21/22 : Harmful by inhalation, in contact with skin and if swallowed
- R36/37/38 : Irritating to eyes, respiratory system and skin
- R27 : Very toxic in contact with skin

Training advice

Provide adequate information, instruction and training to operators

Further information for the material safety data sheet

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

End of Material Safety Data Sheet