

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product form : Mixtures
 Product name : 50MBT
 Product code : 502560

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

Use of the substance/mixture : Scale and Corrosion Inhibitor

1.3. Details of the supplier of the safety data sheet

Dober Chemical Corp
 543 Forest Road
 Humboldt Industrial Park
 Hazle Township, PA 18202 - US
 T 630-410-7300 - F 630-410-7444
regulatory@dober.com - www.dober.com

1.4. Emergency telephone number

Emergency number : 1-800-255-3924 / 1-813-248-0585
 ChemTel

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
GHS-US classification

Met. Corr. 1 H290
 Acute Tox. 4 (Oral) H302
 Skin Corr. 1B H314
 Skin Sens. 1 H317
 Aquatic Acute 1 H400
 Aquatic Chronic 1 H410

Full text of H statements : see section 16

2.2. Label elements
GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H290 - May be corrosive to metals
 H302 - Harmful if swallowed
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P234 - Keep only in original container.
 P260 - Do not breathe spray, mist, vapors.
 P261 - Avoid breathing mist, spray, vapors.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P272 - Contaminated work clothing must not be allowed out of the workplace
 P273 - Avoid release to the environment.
 P280 - Wear eye protection, protective clothing, protective gloves.
 P301+P312 - If swallowed: Call a doctor if you feel unwell
 P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
 P302+P352 - If on skin: Wash with plenty of soap and water
 P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

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P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a doctor
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material-damage.
P391 - Collect spillage.
P405 - Store locked up.
P406 - Store in corrosive resistant container with a resistant inner liner.
P501 - Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

1.4% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

1.4% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS-US classification |
|------------------------------|---------------------|---------|--|
| Sodium Mercaptobenzothiazole | (CAS-No.) 2492-26-4 | 30 - 60 | Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| Sodium Hydroxide | (CAS-No.) 1310-73-2 | 1 - 5 | Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Aquatic Acute 3, H402 |

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Causes severe skin burns and eye damage.
- Symptoms/effects after inhalation : May cause an allergic skin reaction.
- Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

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5.2. Special hazards arising from the substance or mixture

Reactivity : Thermal decomposition generates : Corrosive vapors.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Absorb spillage to prevent material-damage.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mist, spray, vapors. Avoid contact during pregnancy/while nursing. No smoking. Avoid breathing mist, spray, vapors.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well-ventilated place. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Direct sunlight.

Packaging materials : Store in corrosive resistant container with a resistant inner liner.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| 50MBT | | |
|------------------------------|-------------------------------------|---------------------|
| ACGIH | Not applicable | |
| OSHA | Not applicable | |
| Sodium Hydroxide (1310-73-2) | | |
| ACGIH | ACGIH Ceiling (mg/m ³) | 2 mg/m ³ |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 2 mg/m ³ |

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| Sodium Mercaptobenzothiazole (2492-26-4) | |
|--|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

8.2. Exposure controls

| | |
|-------------------------------|--|
| Personal protective equipment | : Avoid all unnecessary exposure. |
| Hand protection | : Wear protective gloves. |
| Eye protection | : Chemical goggles or face shield. |
| Skin and body protection | : Wear suitable protective clothing. |
| Respiratory protection | : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Wear appropriate mask. |
| Other information | : Do not eat, drink or smoke during use. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Color | : Dark amber |
| Odor | : characteristic |
| Odor threshold | : No data available |
| pH | : 13.9 |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : -14 °C |
| Boiling point | : No data available |
| Flash point | : Not applicable |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : Not available |
| Relative vapor density at 20 °C | : ≈ Not available |
| Relative density | : 1.27 |
| Specific gravity / density | : 1.27 mg/l |
| Solubility | : Water: 100% |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : Not available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosion limits | : No data available |

9.2. Other information

| | |
|-------------|-----------------|
| VOC content | : Not available |
|-------------|-----------------|

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapors.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. metals. May be corrosive to metals.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

| 50MBT | |
|--|---------------------------------|
| ATE US (oral) | 1901.409 mg/kg body weight |
| Sodium Hydroxide (1310-73-2) | |
| LD50 oral rat | 140 - 340 mg/kg |
| LD50 dermal rabbit | 1350 mg/kg |
| ATE US (oral) | 140.000 mg/kg body weight |
| ATE US (dermal) | 1350.000 mg/kg body weight |
| Sodium Mercaptobenzothiazole (2492-26-4) | |
| LD50 oral rat | 1476 mg/kg |
| LD50 dermal rabbit | > 7940 mg/kg |
| LC50 inhalation rat (mg/l) | > 8.2 mg/l (Exposure time: 6 h) |
| ATE US (oral) | 1476.000 mg/kg body weight |

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 13.9

Serious eye damage/irritation : Not classified
pH: 13.9

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.

Symptoms/effects after inhalation : May cause an allergic skin reaction.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

| Sodium Hydroxide (1310-73-2) | |
|--|--|
| EC50 Daphnia 1 | 40 mg/l |
| Sodium Mercaptobenzothiazole (2492-26-4) | |
| LC50 fish 1 | 0.3 - 1.1 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static]) |
| EC50 Daphnia 1 | 1.9 - 5.1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) |
| LC50 fish 2 | 3.8 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) |

12.2. Persistence and degradability

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|-------------------------------|------------------|
| Persistence and degradability | Not established. |

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12.3. Bioaccumulative potential

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Bioaccumulative potential : Not established.

Sodium Mercaptobenzothiazole (2492-26-4)

Log Pow : -0.46

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on global warming : No known effects from this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

UN-No.(DOT) : UN1719

UN-No. (IMDG) : 1719

UN-No. (IATA) : 1719

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Caustic alkali liquids, n.o.s.

(Sodium Mercaptobenzothiazole; Sodium Hydroxide)

Proper Shipping Name (IMDG) : CAUSTIC ALKALI LIQUID, N.O.S.

(Sodium Mercaptobenzothiazole; Sodium Hydroxide)

Proper Shipping Name (IATA) : Caustic alkali liquid, n.o.s.

(Sodium Mercaptobenzothiazole; Sodium Hydroxide)

14.3. Transport hazard class(es)

Class (DOT) : 8 - Corrosive

Hazard labels (DOT) : 8



Transport hazard class(es) (IMDG) : 8

Hazard labels (IMDG) : 8



Transport hazard class(es) (IATA) : 8

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Hazard labels (IATA) : 8



14.4. Packing group

Packing group (DOT) : II

Packing group (IMDG) : II

Packing group (IATA) : II

14.5. Environmental hazards

Marine pollutant(DOT) : No

Marine pollutant(IMDG) : Yes

Marine pollutant(IATA) : Yes

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Sodium Hydroxide (1310-73-2)

| | |
|-----------|---------|
| CERCLA RQ | 1000 lb |
|-----------|---------|

15.2. International regulations

CANADA

Sodium Hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List)

| | |
|----------------------|------------------------------|
| WHMIS Classification | Class E - Corrosive Material |
|----------------------|------------------------------|

Sodium Mercaptobenzothiazole (2492-26-4)

Listed on the Canadian DSL (Domestic Substances List)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

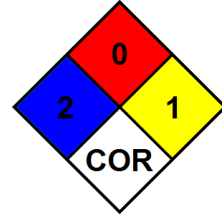
| | |
|------|--|
| H290 | May be corrosive to metals |
| H302 | Harmful if swallowed |
| H312 | Harmful in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H317 | May cause an allergic skin reaction |
| H400 | Very toxic to aquatic life |
| H402 | Harmful to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |

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| | |
|----------------------|---|
| NFPA health hazard | : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. |
| NFPA fire hazard | : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. |
| NFPA reactivity | : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures. |
| NFPA specific hazard | : COR - Corrosive |
| Hazard Rating | |
| Health | : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given |
| Flammability | : 0 Minimal Hazard |
| Physical | : 1 Slight Hazard |
| Personal protection | : J |



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