

SECTION 1: Identification of the hazardous chemical and of the supplier

1.1. Product identifier

Product form : Mixtures
 Product name : 40MBT
 Product code : 401220

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

Recommended use : Scale and Corrosion Inhibitor

1.3. Supplier's details

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

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

Classification according to Industry Code of Practice on chemicals classification and hazard communication (2014)

Met. Corr. 1	H290
Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

2.2. Label elements

Labelling according to Industry Code of Practice on chemicals classification and hazard communication (2014)

Hazard pictograms (GHS MY) :



GHS05

GHS07

GHS09

Signal word (GHS MY) :

Danger

Contains :

Sodium Mercaptobenzothiazole; Sodium Hydroxide

Hazard statements (GHS MY) :

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

Precautionary statements (GHS MY) :

P234 - Keep only in original container.
 P260 - Do not breathe spray, mist, vapours.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P273 - Avoid release to the environment.
 P280 - Wear eye protection, face protection, protective clothing, protective gloves.

2.3. Other hazards not contributing to the classification

No additional information available

SECTION 3: Composition and information of the ingredients of the hazardous chemical

3.1. Substances

Not applicable

3.2. Mixtures

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According to the occupational safety and health (classification, labelling, and safety data sheet of hazardous chemicals) Regulation 2013

Name	Product identifier	%	Classification according to the United Nations GHS (Rev. 4, 2011)
Sodium Mercaptobenzothiazole	(CAS-No.) 2492-26-4	30 - 60	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) 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 Eye Dam. 1, H318 Aquatic Acute Not classified

Name	Product identifier	%
Sodium Mercaptobenzothiazole	(CAS-No.) 2492-26-4	30 - 60
Sodium Hydroxide	(CAS-No.) 1310-73-2	1 - 5

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
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5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe mist, spray, vapours.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

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. Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe vapours, mist, spray. Wear personal protective equipment.

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

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible materials : Metals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium Hydroxide (1310-73-2)		
Malaysia	OEL - Ceilings (mg/m ³)	2 mg/m ³

Exposure limit values for the other components

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Chemical goggles or safety glasses

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

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: amber
Odour	: None
Odour threshold	: No data available
pH	: 14
Melting point, Freezing point	: Melting point: Not applicable
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available

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Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Evaporation rate	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Minimum ignition energy	: No data available
Solubility	: Water: 100 %
Density	: Relative density: 1.204
Relative density	: No data available
Viscosity	: No data available

SECTION 10: Stability and reactivity

Chemical stability	: Stable under normal conditions of use
Conditions to avoid	: None under recommended storage and handling conditions (see section 7)
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced
Incompatible materials	: metals
Possibility of hazardous reactions	: Stable under normal conditions of use
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Unknown acute toxicity (GHS MY)	1.12% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 1.12% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 1.12% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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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)

Sodium Hydroxide (1310-73-2)	
LD50 oral rat	325 mg/kg
LD50 dermal rabbit	1350 mg/kg

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 14
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Unknown hazards to the aquatic environment (GHS MY)	: Contains 1.12 % of components with unknown hazards to the aquatic environment
Acute aquatic toxicity	: Very toxic to aquatic life.

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Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Sodium Mercaptobenzothiazole (2492-26-4)	
LC50 fish 1	0.3 - 1.1 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 fish 2	3.8 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	1.9 - 5.1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
Log Pow	-0.46

Sodium Hydroxide (1310-73-2)	
EC50 Daphnia 1	40 mg/l

12.2. Persistence and degradability

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Persistence and degradability	No additional information available

12.3. Bioaccumulative potential

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Bioaccumulative potential	No additional information available

Sodium Mercaptobenzothiazole (2492-26-4)	
Log Pow	See section 12.1 on ecotoxicology

12.4. Mobility in soil

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Mobility in soil	No additional information available

Sodium Mercaptobenzothiazole (2492-26-4)	
Log Pow	See section 12.1 on ecotoxicology

12.5. Other adverse effects

Ozone : Not classified
GWPmix comment : No known effects from this product.
Other adverse effects : No additional information available

SECTION 13: Disposal information

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transportation information

14.1. UN number

UN-No. (UN RTDG) : 1719
UN-No. (IMDG) : 1719
UN-No. (IATA) : 1719

14.2. Proper Shipping Name

Proper Shipping Name (UN RTDG) : CAUSTIC ALKALI LIQUID, 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)

UN RTDG

Transport hazard class(es) (UN RTDG) : 8
Danger labels (UN RTDG) : 8



IMDG

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Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8
Hazard labels (IATA) : 8



14.4. Packing group

Packing group (UN RTDG) : II
Packing group (IMDG) : II
Packing group (IATA) : II

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
Other information : No supplementary information available

14.6. Special precautions for user

- UN RTDG

Special provisions (UN RTDG) : 274
Limited quantities (UN RTDG) : 1L
Excepted quantities (UN RTDG) : E2
Packing instruction (UN RTDG) : P001, IBC02
Portable tank and bulk container special instructions (UN RTDG) : T11
Portable tank and bulk container special provisions (UN RTDG) : TP2, TP27

- IMDG

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T11
Tank special provisions (IMDG) : TP2, TP27
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG) : A
Properties and observations (IMDG) : Reacts violently with acids. Reacts with ammonium salts, evolving ammonia gas. Causes burns to skin, eyes and mucous membranes.

- IATA

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y840
PCA limited quantity max net quantity (IATA) : 0.5L

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PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L

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

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

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

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Version	: 1.0
Date of issue	: 9/11/2019
Revision date	: 11/09/2019

Abbreviations and acronyms	: ATE - Acute Toxicity Estimate BCF - Bioconcentration factor EC50 - Median effective concentration IATA - International Air Transport Association IMDG - International Maritime Dangerous Goods LC50 - Median lethal concentration LD50 - Median lethal dose
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Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified
Acute Tox. Not classified (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Not classified
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Acute Not classified	Hazardous to the aquatic environment - Acute Hazard Not classified
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
Skin Sens. 1	Skin sensitisation, Category 1
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
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS Malaysia - Dober

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