

**SECTION 1: Identification****1.1. Product identifier**

Product form : Mixtures  
 Product name : A-400  
 Type of product : Scale and Corrosion Inhibitor  
 Product code : 284103

**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****Manufacturer**

Dober Chemical Corp  
 543 Forest Road  
 18202 Hazle Township, PA - US  
 T 630-410-7300 - F 630-410-7444  
[regulatory@dober.com](mailto:regulatory@dober.com) - [www.dober.com](http://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****Classification according to the United Nations GHS**

Skin corrosion/irritation, Category 1B H314  
 Serious eye damage/eye irritation, Category 1 H318  
 Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412  
 Full text of H statements : see section 16

**2.2. Label elements****Labelling according to the United Nations GHS**

Hazard pictograms (GHS-UN) :



GHS05

Signal word (GHS-UN) : Danger  
 Hazardous ingredients : Sodium Tolytriazole  
 Hazard statements (GHS-UN) : H314 - Causes severe skin burns and eye damage.  
 H412 - Harmful to aquatic life with long lasting effects.  
 Precautionary statements (GHS-UN) : P260 - Do not breathe dusts or mists.  
 P264 - Wash hands, forearms and face thoroughly after handling.  
 P273 - Avoid release to the environment.  
 P280 - Wear protective gloves, eye protection, protective clothing.  
 P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
 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.  
 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 POISON CENTER or doctor.  
 P363 - Wash contaminated clothing before reuse.  
 P405 - Store locked up.  
 P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**2.3. Other hazards**

No additional information available

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Not applicable

# A-400

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Sodium Tolytriazole	(CAS-No.) 64665-57-2	10 - 30	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 2, H411
Sodium Nitrate	(CAS-No.) 7631-99-4	5 - 10	Ox. Sol. 3, H272 Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
Sodium Molybdate	(CAS-No.) 7631-95-0	1 - 5	Acute Tox. 5 (Oral), H303
Sodium Hydroxide	(CAS-No.) 1310-73-2	< 1	Met. Corr. 1, H290 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402

Full text of H-statements: 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 person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
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/doctor.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects	: Causes severe skin burns and eye damage.
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

### 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.

### 5.2. Special hazards arising from the substance or mixture

Reactivity	: Thermal decomposition generates : Corrosive vapours.
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### 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 the 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.
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#### 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.

### 6.3. Methods and material for containment and cleaning up

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.
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# A-400

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- 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 vapour. Do not breathe dust/fume/gas/mist/vapours/spray.
- Hygiene measures : Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse.

#### 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 acids.
- Incompatible materials : Direct sunlight.
- Packaging materials : Always store product in container of same material as original container.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Sodium Hydroxide (1310-73-2)

India	PEL Ceilings (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
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#### 8.2. Appropriate engineering controls

- Other information : Do not eat, drink or smoke during use.

#### 8.3. Individual protection measures, such as personal protective equipment (PPE)

- 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

#### 8.4. Exposure limit values for the other components

No additional information available

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : No data available
- Colour : amber.
- Odour : odourless.
- Odour threshold : No data available
- pH : 12.6 - 13.6
- pH solution : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Relative evaporation rate (ether=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : Non flammable
- Vapour pressure : No data available
- Vapour pressure at 50 °C : No data available
- Relative vapour density at 20 °C : No data available
- Relative density : No data available
- Relative density of saturated gas/air mixture : No data available

# A-400

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

Density	: 1.245 - 1.275 g/cm <sup>3</sup>
Relative gas density	: No data available
Solubility	: Water: 100 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, kinematic (calculated value) (40 °C)	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

None under normal use.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids.

### 10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapours.

## 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

Sodium Tolytriazole (64665-57-2)	
LD50 oral rat	1980 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Sodium Nitrate (7631-99-4)	
LD50 oral rat	1267 mg/kg
LD50 oral	3700 mg/kg

Sodium Molybdate (7631-95-0)	
LD50 oral rat	4000 mg/kg
LD50 oral	250 mg/kg
LC50 inhalation rat (mg/l)	> 2080 mg/m <sup>3</sup> (Exposure time: 4 h)

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

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 12.6 - 13.6
Serious eye damage/irritation	: Causes serious eye damage. pH: 12.6 - 13.6
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

# A-400

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

STOT-single exposure	: Not classified
STOT-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.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Unknown hazards to the aquatic environment (GHS-UN)	: Contains 1.95 % of components with unknown hazards to the aquatic environment
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Harmful to aquatic life with long lasting effects.

Sodium Nitrate (7631-99-4)	
LC50 fish 1	2000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC50 fish 2	994.4 - 1107 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
Log Pow	-3.8 (at 25 °C)

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

#### 12.2. Persistence and degradability

A-400	
Persistence and degradability	Not established.

#### 12.3. Bioaccumulative potential

A-400	
Bioaccumulative potential	Not established.

Sodium Nitrate (7631-99-4)	
Log Pow	See section 12.1 on ecotoxicology

#### 12.4. Mobility in soil

A-400	
Mobility in soil	No additional information available

Sodium Nitrate (7631-99-4)	
Log Pow	See section 12.1 on ecotoxicology

#### 12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available
Other information	: Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Disposal 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




In accordance with IMDG / IATA / UN RTDG

UN RTDG	IMDG	IATA
<b>14.1. UN number</b>		
1719	1719	1719
<b>14.2. Proper Shipping Name</b>		
CAUSTIC ALKALI LIQUID, N.O.S. (Sodium Tolyltriazole, Sodium Hydroxide)	CAUSTIC ALKALI LIQUID, N.O.S. (Sodium Tolyltriazole, Sodium Hydroxide)	Caustic alkali liquid, n.o.s. (Sodium Tolyltriazole, Sodium Hydroxide)
<b>14.3. Transport hazard class(es)</b>		
8	8	8

# A-400

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

UN RTDG	IMDG	IATA
		
<b>14.4. Packing group</b>		
II	II	II
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
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

#### - IATA

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
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
ERG code (IATA)	: 8L

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

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health, and environmental national regulations specific for the product

No additional information available

## SECTION 16: Other information

Date of issue : 10/11/2017

# A-400

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

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

Other information : None.

Full text of H-statements:

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet applicable for regions : IN - India

SDS UN

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