

## SAFETY DATA SHEET

**NALMET® 1689**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALMET® 1689

Other means of identification : Not applicable.

Recommended use : WATER CLARIFICATION AID

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company  
1601 W. Diehl Road  
Naperville, Illinois 60563-1198  
USA  
TEL: (630) 305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 11/19/2019

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Eye irritation : Category 2B

#### GHS Label element

Signal Word : Warning

Hazard Statements : Causes eye irritation.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling.  
**Response:**  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Chloride	7647-14-5	1 - 5
Sodium Sulphide	1313-82-2	1 - 5
Sodium Hydroxide	1310-73-2	0.1 - 1

### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

## SAFETY DATA SHEET

### NALMET® 1689

- In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.
- If swallowed : Rinse mouth. Get medical attention if symptoms occur.
- If inhaled : Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Carbon oxides nitrogen oxides (NOx) Sulphur oxides Hydrogen chloride metal oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

### Section: 7. HANDLING AND STORAGE

# SAFETY DATA SHEET

## NALMET® 1689

- Advice on safe handling : Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage : Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
- Unsuitable material : Brass, coated steel not determined

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Hydroxide	1310-73-2	Ceiling	2 mg/m <sup>3</sup>	ACGIH
		Ceiling	2 mg/m <sup>3</sup>	NIOSH REL
		TWA	2 mg/m <sup>3</sup>	OSHA Z1

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Wear protective gloves.  
Impervious gloves, resistant to chemicals.  
Nitrile-rubber, Butyl-Rubber and Neoprene gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : Use local exhaust ventilation or other engineering controls as necessary to control airborne mist and vapor.  
Where concentrations in air may exceed the limits given in this section or when significant mists, vapors, aerosols are generated, an approved air purifying respirator equipped with suitable filter cartridges is recommended.  
Recommended Filter type:  
Combined particulates, ammonia/amines and organic vapour type  
In event of emergency or planned entry into unknown concentrations, a positive pressure, full-facepiece SCBA or supplied-air respirator should be used.  
If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

## SAFETY DATA SHEET

### NALMET® 1689

Appearance	: Liquid
Colour	: brown
Odour	: Sulfurous
Flash point	: , Method: ASTM D 93, Pensky-Martens closed cup, does not flash
pH	: 13.1,(100 %)
Odour Threshold	: no data available
Melting point/freezing point	: no data available
Initial boiling point and boiling range	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 1.10 - 1.35, (25 °C),
Density	: 9.2 - 11.2 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0 %, 0 g/l, EPA Method 24

### Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: May release SO <sub>2</sub> or hydrogen sulfide on contact with acids.

# SAFETY DATA SHEET

**NALMET® 1689**

Strong acids

Hazardous decomposition products : In case of fire, hazardous decomposition products may be produced such as:  
Carbon oxides  
nitrogen oxides (NOx)  
Sulphur oxides  
Hydrogen chloride  
metal oxides

## Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

### Potential Health Effects

Eyes : Causes eye irritation.  
Skin : Health injuries are not known or expected under normal use.  
Ingestion : Health injuries are not known or expected under normal use.  
Inhalation : Health injuries are not known or expected under normal use.  
Chronic Exposure : Health injuries are not known or expected under normal use.

### Experience with human exposure

Eye contact : Redness, Irritation  
Skin contact : No symptoms known or expected.  
Ingestion : No symptoms known or expected.  
Inhalation : No symptoms known or expected.

### Toxicity

#### Product

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Acute inhalation toxicity : no data available  
Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Skin corrosion/irritation : Result: No skin irritation  
Test substance: Similar Product  
Serious eye damage/eye irritation : Result: Irritation to eyes, reversing within 7 days  
Test substance: Similar Product  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available

## SAFETY DATA SHEET

### NALMET® 1689

Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.  
Toxic to aquatic life.

#### Product

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout): 74 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
LC50 *Cyprinodon variegatus* (sheepshead minnow): > 1,000 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
NOEC *Oncorhynchus mykiss* (rainbow trout): < 40 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
NOEC *Cyprinodon variegatus* (sheepshead minnow): 400 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
  
NOEC *Pimephales promelas* (fathead minnow): 432 mg/l  
Exposure time: 96 h  
Test substance: Product  
  
LC50 *Pimephales promelas* (fathead minnow): 602 mg/l  
Exposure time: 96 h  
Test substance: Product  
  
Toxicity to daphnia and other aquatic invertebrates : LC50 *Daphnia magna* (Water flea): 73 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
  
EC50 *Daphnia magna* (Water flea): 18 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
  
NOEC *Daphnia magna* (Water flea): 5 mg/l

# SAFETY DATA SHEET

**NALMET® 1689**

Exposure time: 48 hrs  
Test substance: Product

Toxicity to fish (Chronic toxicity) : ChV: 85.6 mg/l  
Exposure time: 7 d  
Species: Fathead Minnow  
Test substance: Product

LOEC: 121 mg/l  
Exposure time: 7 d  
Species: Fathead Minnow  
Test substance: Product

NOEC: 60.5 mg/l  
Exposure time: 7 d  
Species: Fathead Minnow  
Test substance: Product

EC25 / IC25: 27.2 mg/l  
Exposure time: 7 d  
Species: Fathead Minnow  
Test substance: Product

Chronic Toxicity Value: 10.7 mg/l  
Exposure time: 7 d  
Species: Fathead Minnow  
Test substance: Product

LOEC: 15.1 mg/l  
Exposure time: 7 d  
Species: Fathead Minnow  
Test substance: Product

NOEC: 7.56 mg/l  
Exposure time: 7 d  
Species: Fathead Minnow  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Chronic Toxicity Value: > 4.84 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

LOEC: > 4.84 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

NOEC: 4.84 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

EC25 / IC25: 2.75 mg/l  
Exposure time: 7 d

# SAFETY DATA SHEET

**NALMET® 1689**

Species: Ceriodaphnia dubia  
Test substance: Product

Chronic Toxicity Value: 3.42 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

LOEC: 4.84 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

NOEC: 2.42 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia  
Test substance: Product

## Persistence and degradability

The organic portion of this preparation is expected to be poorly biodegradable.

Chemical Oxygen Demand (COD): 420,000 mg/l

## Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 30 - 50%
Soil	: > 90%

The portion in water is expected to be soluble or dispersible.

## Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

## Other information

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The classification or waste code may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated at the time of disposal to determine the proper waste identification and disposal methods in compliance with applicable regulations.



## SAFETY DATA SHEET

### NALMET® 1689

- Disposal methods : The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

- Proper shipping name : CAUSTIC ALKALI LIQUID, N.O.S.  
Technical name(s) : Sodium Sulphide, Sodium Hydroxide  
UN/ID No. : UN 1719  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 200,000 lbs  
RQ Component : SODIUM HYDROXIDE

#### Air transport (IATA)

- Proper shipping name : CAUSTIC ALKALI LIQUID, N.O.S.  
Technical name(s) : Sodium Sulphide, Sodium Hydroxide  
UN/ID No. : UN 1719  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 200,000 lbs  
RQ Component : SODIUM HYDROXIDE

#### Sea transport (IMDG/IMO)

- Proper shipping name : CAUSTIC ALKALI LIQUID, N.O.S.  
Technical name(s) : Sodium Sulphide, Sodium Hydroxide  
UN/ID No. : UN 1719  
Transport hazard class(es) : 8  
Packing group : III

### Section: 15. REGULATORY INFORMATION

- TSCA list** : No substances are subject to a Significant New Use Rule.  
No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

## SAFETY DATA SHEET

**NALMET® 1689**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Hydroxide	1310-73-2	1000	200000

### **CERCLA Reportable Quantity**

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

### **SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### **INTERNATIONAL CHEMICAL CONTROL LAWS :**

#### **United States TSCA Inventory**

On or in compliance with the active portion of the TSCA inventory

#### **Canadian Domestic Substances List (DSL)**

This product contains substance(s) which are not listed on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

#### **Australia. Industrial Chemical (Notification and Assessment) Act**

On the inventory, or in compliance with the inventory

#### **Japan. ENCS - Existing and New Chemical Substances Inventory**

On the inventory, or in compliance with the inventory

#### **New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand**

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

#### **Korea. Korean Existing Chemicals Inventory (KECI)**

On the inventory, or in compliance with the inventory

#### **Philippines Inventory of Chemicals and Chemical Substances (PICCS)**

On the inventory, or in compliance with the inventory

#### **China Inventory of Existing Chemical Substances**

On the inventory, or in compliance with the inventory

#### **Taiwan Chemical Substance Inventory**

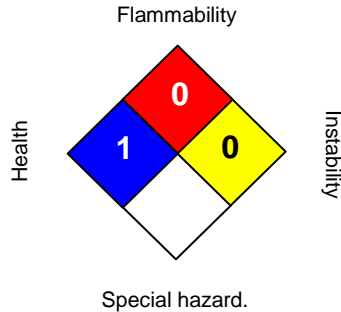
On the inventory, or in compliance with the inventory

# SAFETY DATA SHEET

**NALMET® 1689**

## Section: 16. OTHER INFORMATION

### NFPA:



### HMIS III:

<b>HEALTH</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Revision Date : 11/19/2019  
Version Number : 1.11  
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. 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. For additional copies of an SDS visit [www.nalco.com](http://www.nalco.com) and request access.