

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 5711

Other means of identification : Not applicable.

Recommended use : BOILER STEAM CONDENSATE TREATMENT

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 : 03/10/2021

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion : Category 1
Serious eye damage : Category 1
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS Label element

Hazard pictograms :



Signal Word :

Danger

Hazard Statements :

Causes severe skin burns and eye damage.
May cause respiratory irritation.

Precautionary Statements :

Prevention:

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: 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.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

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Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%)
Ammonium Hydroxide	1336-21-6	30 - 60
Monoethanolamine	141-43-5	5 - 10

Section: 4. FIRST AID MEASURES

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. 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 : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.

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Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. 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 adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. 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

Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. 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: EPDM, Polypropylene (rigid), Polyethylene (rigid), Stainless Steel 304, HDPE (high density polyethylene)

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Buna-N, Neoprene, Polyurethane, Plasite 7122, Plasite 4300, CPVC (rigid), coated steel, Fluoroelastomer, Chlorosulfonated polyethylene rubber

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Ammonium Hydroxide	1336-21-6	TWA	25 ppm (Ammonia)	ACGIH
		STEL	35 ppm (Ammonia)	ACGIH
		TWA	25 ppm 18 mg/m ³ (Ammonia)	NIOSH REL
		STEL	35 ppm	NIOSH REL

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			27 mg/m ³ (Ammonia)	
Monoethanolamine	141-43-5	TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH
		TWA	3 ppm 8 mg/m ³	NIOSH REL
		STEL	6 ppm 15 mg/m ³	NIOSH REL
		TWA	3 ppm 6 mg/m ³	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : colourless

Odour : ammoniacal

Flash point : 110.0 °C, Method: ASTM D 1310, open cup

pH : 12.3,(100 %)

Odour Threshold : no data available

Melting point/freezing point : no data available

Initial boiling point and boiling range : 58.8 °C

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Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 310.0 mm Hg, (37.8 °C),
Relative vapour density	: no data available
Relative density	: 0.937 - 0.967, (25 °C),
Density	: 0.95 g/cm ³ , 7.9 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	: 10 mPa.s (25 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

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	: Strong acids
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NO _x) Sulphur oxides Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects

Eyes : Causes serious eye damage.

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- Skin : Causes severe skin burns.
- Ingestion : Causes digestive tract burns.
- Inhalation : May cause respiratory tract irritation. May cause nose, throat, and lung irritation.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

- Eye contact : Redness, Pain, Corrosion
- Skin contact : Redness, Pain, Corrosion
- Ingestion : Corrosion, Abdominal pain
- Inhalation : Respiratory irritation, Cough

Toxicity

Product

- Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
- Acute inhalation toxicity : Acute toxicity estimate: 19.8 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
- Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
- Skin corrosion/irritation : no data available
- Serious eye damage/eye irritation : no data available
- Respiratory or skin sensitization : no data available
- Carcinogenicity : no data available
- 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

Toxicity

- Environmental Effects : Very toxic to aquatic life.

Product

- Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 8.2 mg/l

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Exposure time: 96 hrs
Test substance: Active Substance

LC50 *Lepomis macrochirus* (Bluegill sunfish): 0.024 - 0.093 mg/l
Exposure time: 48 hrs
Test substance: Active Substance

Toxicity to daphnia and other aquatic invertebrates : LC50 *Daphnia magna* (Water flea): 0.66 mg/l
Exposure time: 48 hrs
Test substance: Active Substance

Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Monoethanolamine
NOEC: 0.85 mg/l
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)

Persistence and degradability

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

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 : 50 - 70%

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

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

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

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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.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Land transport (DOT)

Proper shipping name : CORROSIVE LIQUID, N.O.S.
Technical name(s) : Ammonium Hydroxide, Monoethanolamine
UN/ID No. : UN 1760
Transport hazard class(es) : 8
Packing group : III
Reportable Quantity (per package) : 3,240 lbs
RQ Component : Ammonium Hydroxide

Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, N.O.S.
Technical name(s) : Ammonium Hydroxide, Monoethanolamine
UN/ID No. : UN 1760
Transport hazard class(es) : 8
Packing group : III
Reportable Quantity (per package) : 3,240 lbs
RQ Component : Ammonium Hydroxide

Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, N.O.S.
Technical name(s) : Ammonium Hydroxide, Monoethanolamine
UN/ID No. : UN 1760
Transport hazard class(es) : 8
Packing group : III

*Marine pollutant : Ammonium Hydroxide

* Note: This product is regulated as a Marine Pollutant when shipped by Rail or Highway (in bulk quantities), and when shipped by water in all quantities.

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.

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Ammonium Hydroxide	1336-21-6	1000	3239

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Ammonium Hydroxide	1336-21-6	30 - 50 %
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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)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

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

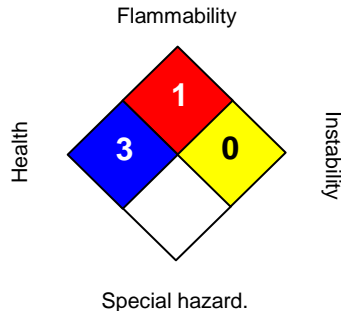
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

Taiwan Chemical Substance Inventory

On the inventory, or in compliance with the inventory.

Section: 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

Revision Date : 03/10/2021
Version Number : 1.4
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 and request access.