

## SAFETY DATA SHEET

**NALCO® 6198**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 6198

Other means of identification : Not applicable.

Recommended use : pH CONTROL

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

Company : ECOLAB PTE LTD  
21 Gul Lane, Singapore 629416  
TEL: 65- 6505-6868  
FAX: 65-6862 0850

Emergency telephone number : +65 6542 9595


Issuing date : 18.10.2017

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Skin corrosion/irritation : Category 1  
Serious eye damage/eye irritation : Category 1

#### GHS Label element

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
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.

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

Other hazards : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

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

Pure substance/mixture : Mixture

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Chemical Name	CAS-No.	Concentration: (%)
Sulfuric Acid	7664-93-9	60 - 100

### 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: Sulphur 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.

### 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.

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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). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

#### 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. Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions for safe storage : Keep away from strong bases. 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 : not determined

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

##### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sulfuric Acid	7664-93-9	PEL (long term)	1 mg/m <sup>3</sup>	SG PEL
		PEL (short term)	3 mg/m <sup>3</sup>	SG PEL
Sulfuric Acid	7664-93-9	TWA (Thoracic fraction)	0.2 mg/m <sup>3</sup>	ACGIH
		TWA	1 mg/m <sup>3</sup>	NIOSH REL
		TWA	1 mg/m <sup>3</sup>	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:  
Butyl rubber  
Neoprene gloves  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear chemical resistant apron, chemical splash goggles, impervious gloves and boots.  
A full slicker suit is recommended if gross exposure is possible.

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

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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.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: colourless
Odour	: Acidic
Flash point	: does not flash
pH	: 0.3,(5 %)
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)	: no data available
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	: 1.5, (16.0 °C),
Density	: no data available
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 %

### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: None known.
Incompatible materials	: Bases Contact with strong alkalies (e.g. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide, sulfide, hypochlorites, chlorites) may generate heat, splattering or boiling and

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toxic vapors.  
Gives off hydrogen by reaction with metals.

Hazardous decomposition products : Decomposition products may include the following materials:  
Sulphur oxides

### Section: 11. TOXICOLOGICAL INFORMATION

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

#### Potential Health Effects

Eyes : Causes serious eye damage.  
Skin : Causes severe skin burns.  
Ingestion : Causes digestive tract burns.  
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, Pain, Corrosion  
Skin contact : Redness, Pain, Corrosion  
Ingestion : Corrosion, Abdominal pain  
Inhalation : No symptoms known or expected.

#### Toxicity

##### Product

Acute oral toxicity : no data available  
Acute inhalation toxicity : no data available  
Acute dermal toxicity : no data available  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : no data available  
Carcinogenicity : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
  
Reproductive effects : No reproductive toxic effects expected.  
Germ cell mutagenicity : Contains no ingredient listed as a mutagen  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available

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Aspiration toxicity : No aspiration toxicity classification

### Human Hazard Characterization

Based on our hazard characterization, the potential human hazard is: High

## Section: 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Environmental Effects : Harmful to aquatic life.

### Product

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

### Components

Toxicity to fish : Sulfuric Acid  
LC50 : 22 mg/l  
Exposure time: 96 h

### Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

### 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

## ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION

Based on our hazard characterization, the potential environmental hazard is: Low

## Section: 13. DISPOSAL CONSIDERATIONS

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- Disposal methods : 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

- UN/ID No. : UN 1830  
Proper shipping name : SULFURIC ACID WITH MORE THAN 51% ACID  
Technical name(s) : Sulfuric Acid  
Transport hazard class(es) : 8  
Packing group : II

#### Air transport (IATA)

- UN/ID No. : UN 1830  
Proper shipping name : SULFURIC ACID WITH MORE THAN 51% ACID  
Technical name(s) : Sulfuric Acid  
Transport hazard class(es) : 8  
Packing group : II

#### Sea transport (IMDG/IMO)

- UN/ID No. : UN 1830  
Proper shipping name : SULFURIC ACID WITH MORE THAN 51% ACID  
Technical name(s) : Sulfuric Acid  
Transport hazard class(es) : 8  
Packing group : II

- Special precautions for user : No special precautions required.

### Section: 15. REGULATORY INFORMATION

#### APPLICABLE REGULATIONS, SINGAPORE

Chemical Weapons Prohibition Act  
Environmental Protection and Management Act  
Hazardous Waste Act  
Misuse of Drugs Act  
Strategic Goods Act

ENVIRONMENTAL POLLUTION CONTROL ACT : Importer of this product to Singapore requires License to Import, Store and Sell this Hazardous Substances.

#### Regulated substance:

Sulfuric Acid

#### Fire Safety (Petroleum and Flammable Materials) Regulations

Not applicable.

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### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### United States TSCA Inventory

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

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

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### Canadian Domestic Substances List (DSL)

The substances in this preparation are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

#### 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).

#### 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)

#### 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).

#### 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).

### Section: 16. OTHER INFORMATION

Revision Date : 18.10.2017  
Version Number : 1.1  
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.