

## SAFETY DATA SHEET

**NALCO® EC6111A**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® EC6111A

Other means of identification : Not applicable.

Recommended use : BIOCIDES

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

Company : Nalco Champion Company  
7705 Highway 90-A  
Sugar Land, Texas 77478  
USA  
TEL: (281) 263-7000

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

Issuing date : 05/11/2015

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Oral) : Category 4  
Acute toxicity (Inhalation) : Category 4  
Acute toxicity (Dermal) : Category 4  
Skin corrosion : Category 1B  
Serious eye damage : Category 1  
Respiratory sensitization : Category 1  
Skin sensitization : Category 1  
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

#### GHS Label element

Hazard pictograms :



Signal Word :

Danger

Hazard Statements :

Harmful if swallowed, in contact with skin or if inhaled  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause respiratory irritation.

Precautionary Statements :

**Prevention:**  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/

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protective clothing/ eye protection/ face protection. In case of inadequate ventilation wear respiratory protection.

**Response:**

IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician. 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 or doctor/ physician. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. 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: (%)
Glutaraldehyde	111-30-8	10 - 30
Methanol	67-56-1	0.1 - 1

## 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.

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.

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- 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
- 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 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 : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Plexiglass, Perfluoroelastomer, Polytetrafluoroethylene/polypropylene copolymer, PTFE, HDPE (high density polyethylene), Ethylene propylene, Polypropylene, Polyethylene, Stainless Steel 304, Stainless Steel 316L, Hastelloy C-276, Aluminum, MDPE (medium density polyethylene), Surface-modified HDPE (high density polyethylene)
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Copper, Mild steel, EPDM, Brass, Nylon, Buna-N, Natural rubber, Polyurethane, Fluoroelastomer, Neoprene, Nitrile, Chlorosulfonated polyethylene rubber

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

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## Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Glutaraldehyde	111-30-8	Ceiling	0.2 ppm 0.8 mg/m <sup>3</sup>	NIOSH REL
		Ceiling	0.05 ppm	ACGIH
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m <sup>3</sup>	NIOSH REL
		STEL	250 ppm 325 mg/m <sup>3</sup>	NIOSH REL
		TWA	200 ppm 260 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:  
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.

## Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid  
Colour : clear  
Odour : Sharp, Medicinal  
Flash point : > 93.3 °C

pH : 3.1 - 4.5, 100 %  
(25 °C)Method: ASTM E 70

Odour Threshold : no data available

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Melting point/freezing point	: FREEZING POINT: -25.6 °C, ASTM D-1177
Initial boiling point and boiling range	: 100.6 °C (760 mm Hg) Method: ASTM D 86
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	: 16.0 mm Hg (20 °C)
Relative vapour density	: no data available
Relative density	: 1.06 (15.6 °C) ASTM D-1298
Density	: 8.8 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 temperature	: no data available
Viscosity, dynamic	: 3.4 mPa.s (20.6 °C) Method: ASTM D 2983
Viscosity, kinematic	: 2.71 mm <sup>2</sup> /s (20 °C)  1.4 mm <sup>2</sup> /s (40 °C) Method: ASTM D 445
VOC	: no data available

### Section: 10. STABILITY AND REACTIVITY

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	: Oxidizing agents Strong acids Strong Bases Contact with these may cause a heat-generating reaction which is not expected to be violent.
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact
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## Potential Health Effects

- Eyes : Causes serious eye damage.
- Skin : Harmful in contact with skin. Causes severe skin burns. May cause allergic skin reaction.
- Ingestion : Harmful if swallowed. Causes digestive tract burns.
- Inhalation : May cause allergic respiratory reaction. May cause respiratory tract irritation. Harmful if inhaled. 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, Irritation, Corrosion, Allergic reactions
- Ingestion : Corrosion, Abdominal pain
- Inhalation : Respiratory irritation, Cough, May cause allergy or asthma symptoms or breathing difficulties if inhaled.

## Toxicity

### Product

- Acute oral toxicity : LD50 rat: 1.87 mg/kg  
Test substance: 25% Active Ingredient
- Acute inhalation toxicity : Acute toxicity estimate : 1.98 mg/l  
Exposure time: 4 h
- Acute dermal toxicity : LD50 rabbit: 1.6-2.5 ml/kg  
Test substance: 50% Active Ingredient
- LD50 rabbit: 2.0-2.7 ml/kg  
Test substance: 45% Active Ingredient
- LD50 rabbit: 8.0-12.8 ml/kg  
Test substance: 25% Active Ingredient
- 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

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Reproductive effects	: no data available
Germ cell mutagenicity	: Mutagenicity in vitro tests of Chinese hamster ovary, sister chromatid exchange and unscheduled DNA synthesis did not produce dose-related responses. Oral doses of 30 and 60 mg/kg to mice showed no effect in the dominant lethal assay. In all five strains of Salmonella, with and without metabolic activation by S9 liver homogenate, no mutagenic response was noted.
Teratogenicity	: Doses of 25 and 50 mg/kg given by gavage to pregnant rats produced decreases in maternal body weight. There were no other indications of maternal toxicity nor was there evidence of fetotoxicity or external, visceral or skeletal abnormalities. Mice (CD-1 strain) given 100 mg/kg by gavage showed fetotoxicity as evidenced by decreased body weight. At lower doses, there was no evidence of fetotoxicity or skeletal abnormalities. No evidence of teratogenic effects were noted in either species.
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : Very toxic to aquatic life.

#### Product

Toxicity to fish	: LC50 <i>Oncorhynchus mykiss</i> (rainbow trout): 42.1 mg/l Exposure time: 96 hrs Test substance: 25% Active Ingredient
	LC50 <i>Lepomis macrochirus</i> (Bluegill sunfish): 37.6 mg/l Exposure time: 96 hrs Test substance: 25% Active Ingredient
	NOEC <i>Oncorhynchus mykiss</i> (rainbow trout): 32 mg/l Exposure time: 96 hrs Test substance: 25% Active Ingredient
	NOEC <i>Lepomis macrochirus</i> (Bluegill sunfish): 10 mg/l Exposure time: 96 hrs Test substance: 25% Active Ingredient
	Toxicity to daphnia and other aquatic invertebrates : LC50 <i>Daphnia magna</i> (Water flea): 16.9 mg/l Exposure time: 48 hrs Test substance: 25% Active Ingredient
	NOEC <i>Daphnia magna</i> (Water flea): 5 mg/l Exposure time: 48 hrs Test substance: 25% Active Ingredient

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Toxicity to bacteria : LC50 Sewage Microorganisms: 17 mg/l  
Exposure time: 96 hrs  
Test substance: 25% Active Ingredient

: NOEC Sewage Microorganisms: 5 mg/l  
Exposure time: 96 hrs  
Test substance: 25% Active Ingredient

Toxicity to terrestrial organisms : LD50 Mallard Duck: 1,631 mg/kg  
Test substance: 25% Active Ingredient

LD50 Mallard Duck: 933 mg/kg  
Test substance: 50% Active Ingredient

#### Components

Toxicity to algae : Methanol  
EC50 : 22,000 mg/l  
Exposure time: 72 h

#### Components

Toxicity to fish (Chronic toxicity) : Methanol  
NOEC: 7,900 mg/l  
Exposure time: 8.3 d

#### Persistence and degradability

The product is 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 could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Disposal methods : As a pesticide waste, consult the FIFRA label for any



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additional handling, treatment, or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

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.

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 : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
Technical name(s) : Glutaraldehyde  
UN/ID No. : UN 3265  
Transport hazard class(es) : 8  
Packing group : III

### Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
Technical name(s) : Glutaraldehyde  
UN/ID No. : UN 3265  
Transport hazard class(es) : 8  
Packing group : III

### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
Technical name(s) : Glutaraldehyde  
UN/ID No. : UN 3265  
Transport hazard class(es) : 8  
Packing group : III

\*Marine pollutant : Glutaraldehyde

\*Note: This product is regulated as a Marine Pollutant when shipped by Rail, Highway (in bulk quantities), or Air (if no other hazard class applies), and when shipped by water in all quantities.

## Section: 15. REGULATORY INFORMATION

EPA Reg. No. : 464-688-68708

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

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

**SARA 311/312 Hazards** : Acute Health Hazard  
Chronic Health Hazard  
Acute Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**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

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Methanol

67-56-1

## INTERNATIONAL CHEMICAL CONTROL LAWS :

### TOXIC SUBSTANCES CONTROL ACT (TSCA)

This product is exempted under TSCA and regulated under FIFRA. The inerts are on the Inventory List.

### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

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.

### AUSTRALIA

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

### CHINA

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).

### EUROPE

The substance(s) in this preparation are included in or exempted from the EINECS or ELINCS inventories

### JAPAN

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

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

### PHILIPPINES

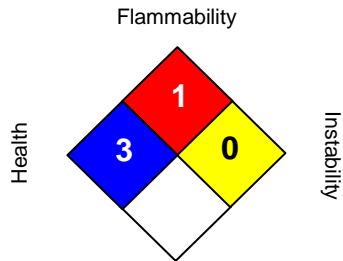
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

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## Section: 16. OTHER INFORMATION

### NFPA:



Special hazard.

### HMIS III:

<b>HEALTH</b>	<b>3*</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

Revision Date : 05/11/2015  
Version Number : 1.0  
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.  
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