

**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**NOTICE OF INTENT**  
**NON-CONTACT COOLING WATER, COOLING TOWER AND BOILER BLOW DOWN**  
**NPDES GENERAL PERMIT ARG250000**

Application Type: **New** ☒ **Renewal** ☐ Permit # **ARG25**\_\_\_\_\_  
AFIN# \_\_\_\_\_

**I. PERMITTEE/OPERATOR INFORMATION**

Permittee (Legal Name): University of Central Arkansas Operator Type:  
Permittee Mailing Address: 201 Donaghey Ave ☒ State ☐ Partnership  
Permittee City: Conway ☐ Federal ☐ Corporation\*  
Permittee State: AR Zip: 72035 ☐ Sole Proprietorship/Private  
Permittee Telephone Number: 501-450-3610 \*State of Incorporation: \_\_\_\_\_  
Permittee Fax Number: 501-450-5399  
Permittee E-mail Address: mellington@uca.edu

**II. INVOICE MAILING INFORMATION**

Invoice Contact Person: Michelle Ellington City: Conway  
Invoice Mailing Company: University of Central Arkansas State: AR Zip: 72035  
Invoice Mailing Address: 201 Donaghey Ave Telephone: 501-450-3610

**III. FACILITY INFORMATION**

Facility Name: University of Central Arkansas Facility Contact Person: Michelle Ellington  
Facility Address: 201 Donaghey Ave Contact Title: Director of Sustainability  
Facility County: Faulkner Contact Telephone Number: 501-450-3610  
Facility City, State & Zip: 72035 Contact E-mail: mellington@uca.edu  
  
Facility SIC Code: 8221 Facility NAICS Code: 6113110 Type of Business: University  
Facility Latitude: 35 Deg 4 Min 45.7314Sec Facility Longitude: -92 Deg 27 Min 40.284Sec  
Accuracy basis: www.terraser- usa.com

**IV. DISCHARGE INFORMATION**

Outfall Number: 001 Flow: Intermittent, annually  
Stream Segment: 3F Hydrologic Basin Code: 11110203  
Outfall Latitude: 35 Deg 4 Min 45.7314Sec Outfall Longitude: -92 Deg 27 Min 40.284Sec  
Accuracy basis: www.terraser- usa.com  
Type of Treatment: None  
Receiving Stream: Stone Dam Creek

**V. FACILITY PERMIT INFORMATION**

**V. FACILITY PERMIT INFORMATION**

NPDES Individual Permit Number (If Applicable): AR00  
NPDES General Permit Number (If Applicable): ARG250000  
State Construction Permit Number(If Applicable): \_\_\_\_\_  
NPDES General Construction Stormwater Permit Number (If Applicable): ARR15

**VI. OTHER INFORMATION:****Disclosure Statements:**

Arkansas Code Annotated Section 8-1-106 requires that all applicants for the issuance or transfer of any permit, license, certification or operational authority issued by the Arkansas Department of Environmental Quality (ADEQ) file a disclosure statement with their applications. The filing of a disclosure statement is mandatory. No application can be considered complete without one. You must submit a new disclosure statement even if you have one on file with the Department. The form may be obtained from ADEQ web site at: [http://www.adeq.state.ar.us/disclosure\\_stmt.pdf](http://www.adeq.state.ar.us/disclosure_stmt.pdf).

**VII. EFFLUENT CHARACTERISTICS:**

A. **Existing Source-** Provide measurements for the parameters listed in the table below.

B. **New Discharges-** Provide estimates for the parameters listed in the table below.

Type		Analyses					Additives * Yes/No
	Flow, MGD	COD, mg/l	TSS, mg/l	Temperature, ° F	O & G, mg/l	pH, s.u.	
Cooling Tower Water	Intermittent	61	4.7	77	<3	8.1	Yes

\* Enclosed MSDS Sheets for Additives \*

NALCO chemicals added to cooling tower water

1. 3D TRASAR 3DT230 – Cooling Water Inhibitor
2. STABREX ST70 - Microbicide
3. H-550 - Microbicide

Type		Analyses from 9/22/2017					Additives * Yes/No
Cooling Tower	Flow, MGD	COD, mg/l	TSS, mg/l	Temperature, ° F	O & G, mg/l	pH, s.u.	
West Plant	Intermittent	47	5	77	<3	8.4	Yes
Mashburn	Intermittent	78	<3	77	<3	8.0	Yes
South Plant	Intermittent	58	6	77	<3	8.0	Yes
Average		61	4.7	77	<3	8.1	

WATER DIVISION  
5301 NORTSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118  
PHONE 501-682-0623 / FAX 501-682-0880  
[www.adeq.state.ar.us](http://www.adeq.state.ar.us)

### VIII. CERTIFICATION OF OPERATOR

- \_\_\_\_\_(Initial) "I certify that, if this facility is a corporation, it is registered with the Secretary of the State of Arkansas."
- \_\_\_\_\_(Initial) "I certify that the cognizant official designated in this Application is qualified to act as a duly authorized representative under the provisions of 40 CFR 122.22(b). If no cognizant official has been designated, I understand that the Department will accept reports signed only by the Applicant."
- \_\_\_\_\_(Initial) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Responsible Official Printed Name: Michelle Ellington

Title: Director of Energy and Sustainability

Responsible Official Signature: Michelle Ellington

Date: 10/5/17

Responsible Official Email: mellington@uca.edu

Cognizant Official Printed Name: Larry Lawrence

Title: Physical Plant Director

Cognizant Official Signature: Larry Lawrence

Date: 10.5.17

Cognizant Official Email: larryl@uca.edu

Telephone: 501-450-5382

### X. PERMIT REQUIREMENT VERIFICATION

Please check the following to verify completion of permit requirements.

Yes No \* If No is answered for any of the questions, then a permit can not be issued!

Submittal of Complete NOI? X ☐

Submittal of Required Permit Fee? X ☐

Check Number: 10126685

Submittal of Site Map? X ☐

Submittal of Disclosure Statement? NA ☐

WATER DIVISION  
5301 NORTHSORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118  
PHONE 501-682-0623 / FAX 501-682-0880

www.adeq.state.ar.us

- 7 -

Revised 04/24/2012





Cooling Tower Locations



## Cooling Tower Location Index

Location	Name	Gallons
1	Colony Square	313
2	Colony Square	313
3	Farris Center	1,600
4	Prince Center	961
5	Laney Hall	1,433
6	Torreyson Library	1,050
7	Torreyson Library	abandoned
8	Doyne Health Science	760
9	West Chiller Plant	1,600
10	West Chiller Plant	1,600
11	Snow Fine Arts	1,999
12	Old Main	785
13	McAlister Hall	1,553
14	Mashburn Hall	1,975
15	Student Center	1,975
16	McCastlin Hall	549
17	Baridon Hall	1,272
18	South Chiller Plant	4,712

**Total Gallons**

24,450

**Customer Analytical Services**  
1601 West Diehl Road Naperville IL 60563-1198  
Phone: 630-305-1000 Fax: 630-305-2821 Email: customeranalyticalservices@nalco.com

**NALCO Water**  
An Ecolab Company

**Final - Report Number:** 2155844

**UNIV OF CENTRAL ARKANSAS - PHYSICAL PLANT DEPT - ATTN PAUL CROSMER -**  
**DIRECTOR OF ENG SVCS**  
201 DONAGHEY AVE  
CONWAY AR 72035 USA

**Sold To:** 0500050193 **Ship To:** 0500050193

**Representative:** Rick Henderson

<b>Sample Number</b>	NW252480
<b>Date Sampled</b>	21-Sep-2017
<b>Date Received</b>	22-Sep-2017
<b>Date Completed</b>	27-Sep-2017
<b>Date Authorized</b>	27-Sep-2017

### Water Analysis

This sample was analyzed as received, the results being as follows:

**Sampling point:** West Cooling Tower

**Water**

Other Analytes	Test Method	Total
Chemical Oxygen Demand (O2)	ISO#CW13044	47 mg/L
Conductivity at 25°C	CW11063	890 µS/cm
pH @ 25°C	CW11059	8.4 pH Units
Total Suspended Solids @ 105°C	CW12003	5 mg/L

**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001:2008 =**

Authorized by Kimberly Jackson  
Principal Chemist

**Final - Report Number:** 2155845

**UNIV OF CENTRALARKANSAS - PHYSICAL PLANT DEPT - ATTN PAUL CROSMER -  
DIRECTOR OF ENG SVCS**

201 DONAGHEY AVE  
CONWAY AR 72035 USA

**Sold To:** 0500050193 **Ship To:** 0500050193

**Representative:** Rick Henderson

<b>Sample Number</b>	NW252481
<b>Date Sampled</b>	21-Sep-2017
<b>Date Received</b>	22-Sep-2017
<b>Date Completed</b>	27-Sep-2017
<b>Date Authorized</b>	27-Sep-2017

---

**Water Analysis**

This sample was analyzed as received, the results being as follows:

**Sampling point:** Mashburn Cooling Tower

**Water**

<b>Other Analytes</b>	<b>Test Method</b>	<b>Total</b>
Chemical Oxygen Demand (O2)	ISO#CW13044	78 mg/L
Conductivity at 25°C	CW11063	790 µS/cm
pH @ 25°C	CW11059	8.0 pH Units
Total Suspended Solids @ 105°C	CW12003	<3 mg/L

---

**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001:2008 =**

Authorized by Kimberly Jackson  
Principal Chemist

**Customer Analytical Services**  
1601 West Diehl Road Naperville IL 60563-1198  
Phone: 630-305-1000 Fax: 630-305-2921 Email: customeranalyticalservices@nalco.com

**NALCO Water**  
An Ecolab Company

**Final - Report Number:** 2155842

**UNIV OF CENTRAL ARKANSAS - PHYSICAL PLANT DEPT - ATTN PAUL CROSMER -  
DIRECTOR OF ENG SVCS**

201 DONAGHEY AVE  
CONWAY AR 72035 USA

**Sold To:** 0500050193 **Ship To:** 0500050193

**Representative:** Rick Henderson

<b>Sample Number</b>	NW252457
<b>Date Sampled</b>	21-Sep-2017
<b>Date Received</b>	22-Sep-2017
<b>Date Completed</b>	27-Sep-2017
<b>Date Authorized</b>	27-Sep-2017

---

**Water Analysis**

This sample was analyzed as received, the results being as follows:

**Sampling point:** South Cooling Tower

**Water**

<b>Other Analytes</b>	<b>Test Method</b>	<b>Total</b>
Chemical Oxygen Demand (O2)	ISO#CW13044	58 mg/L
Conductivity at 25°C	CW11063	1100 µS/cm
pH @ 25°C	CW11059	8.0 pH Units
Total Suspended Solids @ 105°C	CW12003	6 mg/L

---

**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001:2008 =**

Authorized by Kimberly Jackson  
Principal Chemist



**Customer Analytical Services**  
**1601 West Diehl Road Naperville IL 60563-1198**  
Phone: 630-305-1000 Fax: 630-305-2921 Email: customeranalyticalservices@nalco.com

**NALCO** Water  
An Ecolab Company

**Final - Report Number: 2159439**

**UNIV OF CENTRAL ARKANSAS - PHYSICAL PLANT DEPT - ATTN PAUL CROSMER -**  
**DIRECTOR OF ENG SVCS**  
201 DONAGHEY AVE  
CONWAY AR 72035 USA

**Sold To: 0500050193 Ship To: 0500050193**

**Representative: Rick Henderson**

<b>Sample Number</b>	NW252365
<b>Date Sampled</b>	21-Sep-2017
<b>Date Received</b>	22-Sep-2017
<b>Date Completed</b>	28-Sep-2017
<b>Date Authorized</b>	2-Oct-2017

---

### Water Analysis

This sample was analyzed as received, the results being as follows:

**Sampling point: West Cooling Tower**

**Water**

<b>Other Analytes</b>	<b>Test Method</b>	<b>Total</b>
Oil and Grease - Total		<3 mg/L

---

---

**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001:2008 =**

Authorized by Kimberly Jackson  
Principal Chemist

**Customer Analytical Services**  
**1601 West Diehl Road Naperville IL 60563-1198**  
Phone: 630-305-1000 Fax: 630-305-2921 Email: customeranalyticalservices@nalco.com

**NALCO** Water  
An Ecolab Company

**Final - Report Number:** 2159438

**UNIV OF CENTRAL ARKANSAS - PHYSICAL PLANT DEPT - ATTN PAUL CROSMER -**  
**DIRECTOR OF ENG SVCS**  
201 DONAGHEY AVE  
CONWAY AR 72035 USA

**Sold To:** 0500050193 **Ship To:** 0500050193

**Representative:** Rick Henderson

<b>Sample Number</b>	NW252364
<b>Date Sampled</b>	21-Sep-2017
<b>Date Received</b>	22-Sep-2017
<b>Date Completed</b>	28-Sep-2017
<b>Date Authorized</b>	2-Oct-2017

---

### Water Analysis

This sample was analyzed as received, the results being as follows:

**Sampling point:** Mashburn Cooling Tower

**Water**

Other Analytes	Test Method	Total
Oil and Grease - Total		<3 mg/L

---

---

**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001:2008 =**

Authorized by Kimberly Jackson  
Principal Chemist

**Customer Analytical Services**  
**1601 West Diehl Road Naperville IL 60563-1198**  
Phone: 630-305-1000 Fax: 630-305-2921 Email: customeranalyticalservices@nalco.com

**NALCO** Water  
An Ecolab Company

**Final - Report Number: 2159440**

**UNIV OF CENTRAL ARKANSAS - PHYSICAL PLANT DEPT - ATTN PAUL CROSMER -**

**DIRECTOR OF ENG SVCS**

201 DONAGHEY AVE

CONWAY AR 72035 USA

**Sold To: 0500050193 Ship To: 0500050193**

**Representative: Rick Henderson**

<b>Sample Number</b>	NW252366
<b>Date Sampled</b>	21-Sep-2017
<b>Date Received</b>	22-Sep-2017
<b>Date Completed</b>	28-Sep-2017
<b>Date Authorized</b>	2-Oct-2017

---

### Water Analysis

This sample was analyzed as received, the results being as follows:

**Sampling point:** South Cooling Tower

**Water**

Other Analytes	Test Method	Total
Oil and Grease - Total		<3 mg/L

---

---

**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001:2008 =**

Authorized by Kimberly Jackson  
Principal Chemist

## SAFETY DATA SHEET

**3D TRASAR™ 3DT230**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT230

Other means of identification : Not applicable.

Recommended use : COOLING WATER INHIBITOR

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 : 06/16/2016

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Skin corrosion : Category 1A  
Serious eye damage : Category 1

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection. Do not mix with bleach or other chlorinated products – will cause chlorine gas.

**Response:**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: 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. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.

**Storage:**

Store locked up.

**Disposal:**

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT230

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

Chemical Name	CAS-No.	Concentration: (%)
Phosphoric Acid	7664-38-2	1 - 5
Sulfuric Acid	7664-93-9	1 - 5
Benzotriazole	95-14-7	1 - 5

#### 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  
Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT230

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. 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 labeled 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
Phosphoric Acid	7664-38-2	TWA	1 mg/m3	ACGIH
		STEL	3 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		STEL	3 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z1
Sulfuric Acid	7664-93-9	TWA (Thoracic fraction)	0.2 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z1



## SAFETY DATA SHEET

### 3D TRASAR™ 3DT230

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 to slightly hazy, yellow, to, brown

Odour : Organic

Flash point : does not flash

pH : 0.8, 100 %

Odour Threshold : no data available

Melting point/freezing point : FREEZING POINT: -3.6 °C, ASTM D-1177

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 : 7.5 hPa, (0 °C), ASTM D-2879,  
25.3 hPa, (20 °C),  
64.0 hPa, (37.8 °C),  
240 hPa, (65.6 °C),  
706 hPa, (93.3 °C),  
1,010 hPa, (103.3 °C),

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT230

Relative vapour density	: no data available
Relative density	: 1.1, (15.5 °C),
Density	: 1.10 g/cm <sup>3</sup> , 9.2 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 temperature	: no data available
Viscosity, dynamic	: 4.23 mPa.s (20 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 0.2 %, Calculation method

### 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	: Extremes of temperature
Incompatible materials	: Bases
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon 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.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT230

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: > 40 mg/l  
Exposure time: 4 h  
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 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

##### **Components**

Acute dermal toxicity : Phosphoric Acid  
LD50 rabbit: > 2,000 mg/kg  
Benzotriazole  
LD50 rabbit: > 10,000 mg/kg

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

##### **Product**

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3,415 mg/l  
Exposure time: 96 h  
Test substance: Product  
NOEC Pimephales promelas (fathead minnow): 2,500 mg/l  
Exposure time: 96 h

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT230

Test substance: Product

LC50 Oncorhynchus mykiss (rainbow trout): 1,472 mg/l

Exposure time: 96 h

Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): 1,200 mg/l

Exposure time: 96 h

Test substance: Product

Toxicity to daphnia and other : NOEC Ceriodaphnia dubia: 1,250 mg/l

aquatic invertebrates

Exposure time: 48 h

Test substance: Product

LC50 Ceriodaphnia dubia: 1,768 mg/l

Exposure time: 48 h

Test substance: Product

#### Components

Toxicity to algae

: Phosphoric Acid

EC50 Desmodesmus subspicatus (green algae): > 100 mg/l

Exposure time: 72 h

#### Persistence and degradability

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

Total Organic Carbon (TOC) : 46,000 mg/l

Chemical Oxygen Demand (COD): 150,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period

Value

Test Descriptor

300 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 : 50 - 70%

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

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

## SAFETY DATA SHEET

### 3D TRASAR™ 3DT230

#### 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.

- Hazardous Waste: : D002
- 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 (DOT)

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.

- Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
Technical name(s) : PHOSPHORIC ACID, SULFURIC ACID  
UN/ID No. : UN 3264  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 53,642 lbs  
RQ Component : SULFURIC ACID

##### Air transport (IATA)

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.

- Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
Technical name(s) : PHOSPHORIC ACID, SULFURIC ACID  
UN/ID No. : UN 3264  
Transport hazard class(es) : 8  
Packing group : III  
Reportable Quantity (per package) : 53,642 lbs  
RQ Component : SULFURIC ACID

## SAFETY DATA SHEET

**3D TRASAR™ 3DT230**

### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
Technical name(s) : PHOSPHORIC ACID, SULFURIC ACID  
UN/ID No. : UN 3264  
Transport hazard class(es) : 8  
Packing group : III

### Section: 15. REGULATORY INFORMATION

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

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

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric Acid	7664-93-9	1000	53642

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

**SARA 302** : The following components are subject to reporting levels established by SARA Title III, Section 302:  
Sulfuric Acid 7664-93-9

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
Sulfuric Acid 7664-93-9 1 - 5 %

#### 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 :

##### TOXIC SUBSTANCES CONTROL ACT (TSCA)

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

##### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

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

##### 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).



## SAFETY DATA SHEET

### 3D TRASAR™ 3DT230

#### 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

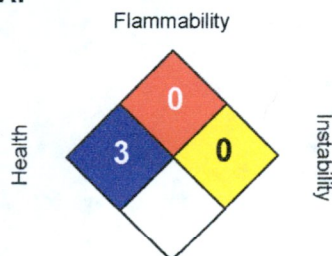
All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

#### PHILIPPINES

This product contains substance(s) which are not in compliance with the Republic Act 6969 (RA 6969) and may require additional review.

### Section: 16. OTHER INFORMATION

#### NFPA:



Special hazard.

#### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Revision Date : 06/16/2016  
Version Number : 1.7  
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.

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : NALCO STABREX® ST70

Other means of identification : Not applicable.

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 : 08/04/2015

**Section: 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Acute toxicity (Oral) : Category 4  
Acute toxicity (Inhalation) : Category 4  
Skin corrosion : Category 1A  
Serious eye damage : Category 1

**GHS Label element**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Harmful if swallowed or if inhaled  
Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED:

## SAFETY DATA SHEET

### NALCO STABREX® ST70

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. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.

**Storage:**

Store locked up.

**Disposal:**

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

**Other hazards** : None known.

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

Pure substance/mixture : Mixture

Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Hypochlorite	7681-52-9	6.36
Sodium Bromide	7647-15-6	9.23
Sodium Hydroxide	1310-73-2	1 - 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.

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

## SAFETY DATA SHEET

### NALCO STABREX® ST70

- 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 : Hydrogen chloride May evolve chlorine under fire conditions.  
Sulphur oxides 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 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 : This product is toxic to fish and other aquatic organisms. It is not to be used in circumstances that would cause or allow it to enter lakes, streams, ponds, estuaries, oceans or other waters in contravention of federal or provincial regulatory requirements. DO NOT discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. The requirements of applicable laws should be determined before using the product.
- Methods and materials for containment and cleaning up : Clean-up methods - small spillage 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). Clean-up methods - large spillage For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

#### 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. Mixing this product with acid or ammonia releases chlorine gas.



## SAFETY DATA SHEET

### NALCO STABREX® ST70

- Conditions for safe storage : Do not store near acids. 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: Polyethylene, Polypropylene, Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use., HDPE (high density polyethylene), Neoprene, PVC, Polyurethane, Chlorosulfonated polyethylene rubber, Fluoroelastomer
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Buna-N, EPDM, Stainless Steel 316L, Stainless Steel 304, 100% phenolic resin liner, Epoxy phenolic resin, Mild steel

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

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Hypochlorite	7681-52-9	STEL	2 mg/m3	AIHA WEEL
Sodium Hydroxide	1310-73-2	Ceiling	2 mg/m3	ACGIH
		Ceiling	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	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

## SAFETY DATA SHEET

### NALCO STABREX® ST70

Appearance	: Liquid
Colour	: light yellow
Odour	: odourless
Flash point	: > 93.3 °C
pH	: 13.0, 100 %
Odour Threshold	: no data available
Melting point/freezing point	: FREEZING POINT: -8.3 °C, ASTM D-1177
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	: 7.7 mm Hg (25 °C) 27 mm Hg (46 °C)
Relative vapour density	: no data available
Relative density	: 1.32 - 1.36 (25 °C) ASTM D-1298
Density	: 11.0 - 11.3 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	: 7 mPa.s
Viscosity, kinematic	: no data available
VOC	: 0 %

#### Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Mixing this product with acid or ammonia releases chlorine gas.
Conditions to avoid	: Avoid extremes of temperature. Heat and light which can accelerate decomposition. Freezing temperatures.



## SAFETY DATA SHEET

### NALCO STABREX® ST70

- Incompatible materials : Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.  
Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.  
Contact with organic materials (e.g. rags, sawdust, hydrocarbon oils or solvents) and avoid reducing agents (e.g. hydrazine, sulfites, sulfide, aluminum or magnesium dust) which can generate heat, fires, explosions and the release of toxic fumes.  
Do not mix with any sodium hypochlorite or bleach product.  
Resulting mixture will result in a violent exothermic reaction releasing large amounts of nitrogen gas and liquid sulfuric acid.  
Contact with reactive metals (e.g. aluminum) may result in the generation of flammable hydrogen gas.  
Ammonia
- Hazardous decomposition products : Bromine  
Hydrogen bromide  
Chlorine gas  
HCl  
Oxides of nitrogen  
Oxides of sulfur  
Gives off hydrogen by reaction with metals.

### 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 : Harmful if swallowed. Causes digestive tract burns.
- Inhalation : 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, Corrosion
- Ingestion : Corrosion, Abdominal pain
- Inhalation : Respiratory irritation, Cough

#### Toxicity

#### Product

## SAFETY DATA SHEET

### NALCO STABREX® ST70

Acute oral toxicity	: no data available
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: Species: Rabbit Result: 7.9 Method: Draize Test Test substance: Similar Product
Serious eye damage/eye irritation	: Species: rabbit Result: Corrosive Test substance: Similar Product
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: Not mutagenic in Ames Test. Only TA100 strain tested.
Teratogenicity	: no data available
STOT - single exposure	: no data available
STOT - repeated exposure	: no data available
Aspiration toxicity	: no data available

#### Components

Acute oral toxicity	: Sodium Hypochlorite LD50 rat: 5,230 mg/kg
	Sodium Bromide LD50 rat: 4,200 mg/kg

#### Components

Acute inhalation toxicity	: Sodium Hypochlorite LC50 rat: > 5.25 mg/l Exposure time: 4 h
---------------------------	--

#### Components

Acute dermal toxicity	: Sodium Hypochlorite LD50 rabbit: > 10,000 mg/kg
-----------------------	--

## SAFETY DATA SHEET

### NALCO STABREX® ST70

Sodium Bromide  
LD50 rabbit: > 2,000 mg/kg

#### Section: 12. ECOLOGICAL INFORMATION

##### Ecotoxicity

Environmental Effects : Toxic to aquatic life.

##### Product

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout): 4.5 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Cyprinodon variegatus* (sheepshead minnow): 16 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Pimephales promelas* (fathead minnow): 8.3 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC *Oncorhynchus mykiss* (rainbow trout): 1.3 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC *Cyprinodon variegatus* (sheepshead minnow): 8 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC *Pimephales promelas* (fathead minnow): 3.6 mg/l  
Exposure time: 96 hrs  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 *Daphnia magna* (Water flea): 4.3 mg/l  
Exposure time: 48 hrs  
Test substance: Product

LC50 Mysid Shrimp (*Mysidopsis bahia*): 27 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Ceriodaphnia dubia*: 1.6 mg/l  
Exposure time: 48 hrs  
Test substance: Product

EC50 *Daphnia magna* (Water flea): 4.2 mg/l  
Exposure time: 48 hrs  
Test substance: Product

NOEC *Daphnia magna* (Water flea): 2.2 mg/l  
Exposure time: 48 hrs  
Test substance: Product

## SAFETY DATA SHEET

### NALCO STABREX® ST70

NOEC Mysid Shrimp (*Mysidopsis bahia*): 13 mg/l  
Exposure time: 96 hrs  
Test substance: Product

NOEC *Ceriodaphnia dubia*: 0.63 mg/l  
Exposure time: 48 hrs  
Test substance: Product

Toxicity to algae : LC50 Green Algae (*Pseudokirchneriella subcapitata*,  
previously *Selenastrum capricornutum*): 3.66 mg/l  
Exposure time: 72 hrs  
Test substance: Product

NOEC Green Algae (*Pseudokirchneriella subcapitata*,  
previously *Selenastrum capricornutum*): 2.5 mg/l  
Exposure time: 72 hrs  
Test substance: Product

Toxicity to fish (Chronic toxicity) : EC25 / IC25: 3.34 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

NOEC: 2.5 mg/l  
Exposure time: 7 Days  
Species: Fathead Minnow  
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC25 / IC25: 15.6 mg/l  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

LOEC: 40.0 mg/l  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

NOEC: 20.0 mg/l  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

LOEC: 5.0 mg/l  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

NOEC: 2.5 mg/l  
Species: *Ceriodaphnia dubia*  
Test substance: Product  
Test Type: 3 Brood

### Persistence and degradability

## SAFETY DATA SHEET

### NALCO STABREX® ST70

Chemical Oxygen Demand (COD): 89,000 mg/l

Biochemical Oxygen Demand (BOD): This material is an oxidizing biocide and is not expected to persist in the environment.

#### 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	: 30 - 50%

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.

Hazardous Waste: : D002

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)

## SAFETY DATA SHEET

### NALCO STABREX® ST70

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : SODIUM HYDROXIDE, SODIUM HYPOCHLORITE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : II  
Reportable Quantity (per package) : 35,000 lbs  
RQ Component : SODIUM HYDROXIDE

#### Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : SODIUM HYDROXIDE, SODIUM HYPOCHLORITE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : II  
Reportable Quantity (per package) : 35,000 lbs  
RQ Component : SODIUM HYDROXIDE

#### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
Technical name(s) : SODIUM HYDROXIDE, SODIUM HYPOCHLORITE  
UN/ID No. : UN 3266  
Transport hazard class(es) : 8  
Packing group : II

### Section: 15. REGULATORY INFORMATION

EPA Reg. No. : 1706-179

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

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Hypochlorite	7681-52-9	100	1607

##### 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

**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.



## **SAFETY DATA SHEET**

### **NALCO STABREX® ST70**

#### **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 :**

##### **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)**

Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

##### **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).

##### **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)

##### **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.

##### **PHILIPPINES**

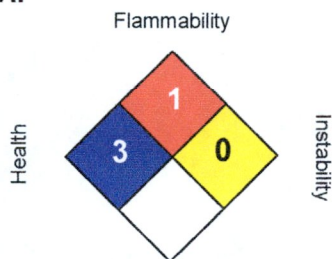
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

### **Section: 16. OTHER INFORMATION**

## SAFETY DATA SHEET

**NALCO STABREX® ST70**

### NFPA:



### HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

Revision Date : 08/04/2015  
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.

For additional copies of an MSDS visit [www.nalco.com](http://www.nalco.com) and request access.

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : H-550

Other means of identification : Not applicable.

Recommended use : MICROBIOCIDES

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 : 04/21/2016

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Oral) : Category 3

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 : Toxic if swallowed.  
Harmful 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

## SAFETY DATA SHEET

H-550

well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection. In case of inadequate ventilation wear respiratory protection.

### Response:

IF SWALLOWED: Immediately call a POISON CENTER/doctor. 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/doctor. 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	50
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.

Unsuitable extinguishing : None known.

## SAFETY DATA SHEET

**H-550**

media

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.

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 : Restrict access to area as appropriate until clean-up operations are complete. Ensure clean-up is conducted by trained personnel only. Ventilate spill area if possible. Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment. Notify appropriate government, occupational health and safety and environmental authorities.

Environmental precautions : This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters, unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

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.

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: 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

## SAFETY DATA SHEET

**H-550**

### 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

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 : colourless  
Odour : Aldehyde  
Flash point : , Method: ASTM D 56, does not flash  
pH : 3.1 - 4.5, 100 %, (25 °C)  
Odour Threshold : no data available  
Melting point/freezing point : FREEZING POINT: -21 °C, ASTM D-1177  
Initial boiling point and boiling range : 100.5 °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

## SAFETY DATA SHEET

**H-550**

Vapour pressure	: 16 mm Hg, (20 °C), ASTM D 323,
Relative vapour density	: 1.1
Relative density	: 1.11 - 1.13, (25 °C), ASTM D-1298
Density	: 9.4 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	: 21 mPa.s (20 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 54 %, 605.12 g/l, EPA Method 24

### 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	: Extremes of temperature
Incompatible materials	: Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors. Amines Strong Bases Strong acids
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) 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.
Skin	: Harmful in contact with skin. Causes severe skin burns. May cause allergic skin



## SAFETY DATA SHEET

**H-550**

reaction.

- Ingestion : Toxic 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: 200 mg/kg  
Test substance: Product
- Acute inhalation toxicity : LC50 rat: > 27 ppm  
Exposure time: 4 hrs  
Test substance: Product
- LC50 rat: 15 mg/l  
Exposure time: 4 hrs  
Test substance: Product
- Acute dermal toxicity : LD50 rabbit: 1,749 mg/kg  
Test substance: Product
- 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



## SAFETY DATA SHEET

**H-550**

### Ecotoxicity

Environmental Effects : Harmful to aquatic life.

### Product

Toxicity to fish : LC50 *Lepomis macrochirus* (Bluegill sunfish): 22.4 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
Test Type: Static

LC50 *Pimephales promelas* (fathead minnow): 10.8 mg/l  
Exposure time: 96 hrs  
Test substance: Product

LC50 *Cyprinodon variegatus* (sheepshead minnow): 32 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

LC50 *Oncorhynchus mykiss* (rainbow trout): 12 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

NOEC *Lepomis macrochirus* (Bluegill sunfish): 10 mg/l  
Exposure time: 96 hrs  
Test substance: Product  
Test Type: Static

NOEC *Cyprinodon variegatus* (sheepshead minnow): 24 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

NOEC *Oncorhynchus mykiss* (rainbow trout): 9 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

Toxicity to daphnia and other aquatic invertebrates : LC50 *Daphnia magna* (Water flea): 0.69 mg/l  
Exposure time: 48 hrs  
Test substance: Product  
Test Type: Static

LC50 Shore Crab: 465 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Static

LC50 Grass Shrimp: 41 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Static

LC50 Mysid Shrimp (*Mysidopsis bahia*): 7.1 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Flow-through

## SAFETY DATA SHEET

H-550

LC50 *Acartia tonsa*: 0.11 mg/l  
Exposure time: 48 hrs  
Test substance: Active Substance  
Test Type: Static

EC50 American Oyster: 0.78 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Flow-through

NOEC Mysid Shrimp (*Mysidopsis bahia*): 0.78 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Flow-through

NOEC American Oyster: 0.16 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance  
Test Type: Flow-through

NOEC *Acartia tonsa*: 0.029 mg/l  
Exposure time: 48 hrs  
Test substance: Active Substance  
Test Type: Static

Toxicity to algae : LC50 Marine Algae (*Skeletonema costatum*): 0.61 mg/l  
Exposure time: 72 hrs  
Test substance: Active Substance

LC50 Algae (*Scenedesmus subspicatus*): 0.97 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

LC50 Green Algae (*Pseudokirchneriella subcapitata*,  
previously *Selenastrum capricornutum*): 2.64 mg/l  
Exposure time: 72 hrs  
Test substance: Product

NOEC Marine Algae (*Skeletonema costatum*): 0.33 mg/l  
Exposure time: 72 hrs  
Test substance: Active Substance

NOEC Algae (*Scenedesmus subspicatus*): 0.33 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

Toxicity to bacteria : LC50 Sewage Microorganisms: > 50 mg/l  
Exposure time: 96 hrs  
Test substance: Active Substance

: LC50 Bacteria: 17 - 25 mg/l  
Exposure time: 16 hrs  
Test substance: Active Substance

Toxicity to fish (Chronic) : LOEC: 2.9 mg/l

## SAFETY DATA SHEET

**H-550**

toxicity)

Exposure time: 28 Days  
Species: Fathead Minnow  
Test substance: Active Substance

NOEC: 1.4 mg/l  
Exposure time: 28 Days  
Species: Fathead Minnow  
Test substance: Active Substance

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 4.25 mg/l  
Exposure time: 21 Days  
Species: Daphnia magna  
Test substance: Active Substance  
Test Type: 3 Brood

Toxicity to terrestrial organisms : LC50 Bobwhite Quail: Exposure time: 8 Days  
Test substance: Active Substance

LC50 Mallard Duck: Exposure time: 8 Days  
Test substance: Active Substance

LC50 Mallard Duck: 933 mg/kg  
Test substance: 50% Active Ingredient

### Persistence and degradability

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

Chemical Oxygen Demand (COD): 900,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period Value  
0 mg/l

Test Descriptor

### 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

# SAFETY DATA SHEET

H-550

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 : 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, TOXIC, N.O.S  
Technical name(s) : GLUTARALDEHYDE  
UN/ID No. : UN 2922  
Transport hazard class(es) : 8, 6.1  
Packing group : II

### Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S  
Technical name(s) : GLUTARALDEHYDE  
UN/ID No. : UN 2922  
Transport hazard class(es) : 8, 6.1  
Packing group : II

### Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S  
Technical name(s) : GLUTARALDEHYDE  
UN/ID No. : UN 2922  
Transport hazard class(es) : 8, 6.1  
Packing group : II

\*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.

## SAFETY DATA SHEET

**H-550**

### Section: 15. REGULATORY INFORMATION

**EPA Reg. No.** : 464-704-1706

**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

**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)**

Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

**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).

**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)

## SAFETY DATA SHEET

**H-550**

### NEW ZEALAND

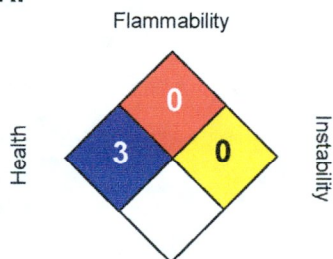
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

### 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).

## Section: 16. OTHER INFORMATION

### NFPA:



### HMIS III:

HEALTH	3*
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Revision Date : 04/21/2016  
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](http://www.nalco.com) and request access.

## Cooling Tower Winterization

The University of Central Arkansas (UCA) operates 14 cooling towers, one steam boiler and about 60 hot water boilers. Each of these units may need to blow down intermittently. All of the blowdown discharges go into the sanitary sewer system and are not included in the NOI.

Winterization of the smaller cooling towers is required at the end of each year. Winterizing the units requires draining and flushing of each unit. Below is the procedure for winterizing these units.

### Winterization Procedure:

1. Determine a schedule for winterizing the cooling towers.
2. Based on the schedule shut off the biocide to the tower one week before winterization blowdown begins.
3. Blowdown the cooling water into the sanitary sewer until the tower water is exchanged \_\_\_ times. (The time to blowdown will vary depending on the size of each basin and the rate of blowdown.)
4. Test the basin water for temperature, pH and turbidity.
  - a. The temperature should be the ambient temperature, but no higher than 89.6°F.
  - b. The pH must be between 6 and 9.
  - c. Turbidity must be between less than or equal to 40.
5. Once the blowdown is completed, dump and rinse the tower to the storm sewer.
6. Add potable water antifreeze into the sump as needed to protect the system during a hard freeze.

Below is the estimated blowdown time at the rated maximum capacity of the pipe for decreasing concentration by half, 2X.

Cooling tower locations:						
	Location	Main Discharge	Blowdown rate, gpm	Blowdown time, hrs	Capacity gallons	Comments
1	Baridon	Ground	3	7.1	1272	½" (sanitary sewer nearby)
2	Farris	Ground			1600	(abandoned drains nearby)
3	Doyne	Roof				
4	Laney	Sewer				
5	Mashburn	Roof	3	11.0	1975	½"
6	McAlister	Ground	6	4.3	1553	¾"
7	McCastlin	Ground	3	3.0	549	½" (sanitary sewer nearby)
8	Old Gym	Sewer				
9	Old Main	Sewer			785	
10	Snow	Roof			1999	
11	South Plant	Sewer	6	13.1	4712	¾" (drain line cut to SS)
12	Student Ctr	Sewer	3	11.0	1975	½" (sanitary sewer nearby)
13	Torreyson	Ground	6	2.9	1050	¾"
14	West Plant	Ground	10	5.4	3200	1"

Attached is a typical analysis of the cooling towers.