NALCO Water
An Ecolab Company

SAFETY DATA SHEET

STABREX™ ST70

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	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	:	09/11/2019

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Skin corrosion	:	Category 1
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. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Bromide	7647-15-6	9.23
Sodium Hypochlorite	7681-52-9	6.36
Sodium Chloride	7647-14-5	1 - 5
Sodium Hydroxide	1310-73-2	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.

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.

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.
Conditions for safe storage	:	Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Suitable material	:	The following compatibility data is suggested based on similar product data and/or industry experience: 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:
butyl-rubber
Neoprene gloves
Nitrile rubber
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.
Combined particulates and inorganic gas/vapour type

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 : light yellow

Odour : odourless

Flash point : Not applicable.

pH : 13.0

Odour Threshold : no data available

Melting point/freezing point : -8.2 °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), ASTM D 2879-86,
27 mm Hg, (46 °C), ASTM D 2879-86,

Relative vapour density	:	no data available
Relative density	:	1.305 - 1.380, (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	:	no data available
Viscosity, dynamic	:	7 mPa.s
Viscosity, kinematic	:	no data available
Molecular weight	:	no data available
VOC	:	0 %, EPA Method 24

Section: 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	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.
Incompatible materials	:	None known.

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

Acute oral toxicity	:	LD50 rat: 1,500 mg/kg
Acute inhalation toxicity	:	no data available
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg
Skin corrosion/irritation	:	Species: rabbit Result: 7.9 Method: Draize Test Test substance: Similar Product
Serious eye damage/eye irritation	:	Species: rabbit Result: Corrosive Method: Draize Test Test substance: Similar Product
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

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

LC50 Pimephales promelas (fathead minnow): 7.1 mg/l
Exposure time: 48 hrs
Test substance: Product

NOEC Pimephales promelas (fathead minnow): 5.0 mg/l
Exposure time: 48 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

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

LOEC: 5 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

NOEC: 2.5 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: 20.0 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

Persistence and degradability

Chemical Oxygen Demand (COD): 89,900 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)

Proper shipping name	:	SODIUM HYDROXIDE SOLUTION
Technical name(s)	:	
UN/ID No.	:	UN 1824
Transport hazard class(es)	:	8
Packing group	:	II
Reportable Quantity (per	:	15,625 lbs

package)
RQ Component : Sodium Hydroxide

Air transport (IATA)

Proper shipping name	:	SODIUM HYDROXIDE SOLUTION
Technical name(s)	:	
UN/ID No.	:	UN 1824
Transport hazard class(es)	:	8
Packing group	:	II
Reportable Quantity (per package)	:	15,625 lbs
RQ Component	:	Sodium Hydroxide

Sea transport (IMDG/IMO)

Proper shipping name	:	SODIUM HYDROXIDE SOLUTION
Technical name(s)	:	
UN/ID No.	:	UN 1824
Transport hazard class(es)	:	8
Packing group	:	II

Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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 Hydroxide	1310-73-2	1000	15625

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 toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

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

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

INTERNATIONAL CHEMICAL CONTROL LAWS :

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

Canadian Domestic Substances List (DSL)
Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

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

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

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

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

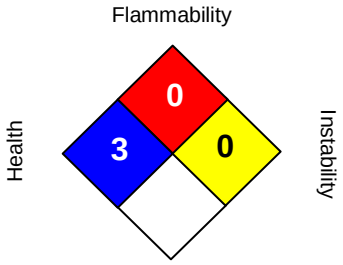
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996,and are listed on or are exempt from the New Zealand Inventory of Chemicals.

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

Taiwan Chemical Substance Inventory
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

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	:	09/11/2019
Version Number	:	1.6
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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