

## SAFETY DATA SHEET

**NALCO® 3935**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 3935

Other means of identification : Not applicable

Recommended use : MICROORGANISM CONTROL CHEMICAL

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

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

Emergency telephone number : +(65)-31581349

Issuing date : 29.11.2019

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Skin corrosion/irritation : Category 1


Serious eye damage/eye irritation : Category 1

Acute aquatic toxicity : Category 1

Corrosive to metals : Category 1

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.  
Very toxic to aquatic life.  
May be corrosive to metals.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection. Keep only in original container.

**Response:**  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. Collect spillage. Absorb spillage to prevent material damage.

**Storage:**  
Store locked up. Store in corrosive resistant container with a resistant inner liner.

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**Other hazards** : Contact with acids liberates toxic gas.  
Mixing this product with acid or ammonia releases chlorine gas.

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

Pure substance/mixture : Mixture

| Chemical Name       | CAS-No.   | Concentration: (%) |
|---------------------|-----------|--------------------|
| Sodium Hypochlorite | 7681-52-9 | 10 - 30            |

### 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.

Special protective equipment for firefighters : In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

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|---|---|
| protective equipment and emergency procedures         | 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). 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. Mixing this product with acid or ammonia releases chlorine gas.           |
| Conditions for safe storage | : 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: HDPE (high density polyethylene), Polypropylene, PVC, Polyvinylidene difluoride, PTFE, FEP (encapsulated), Neoprene, Fluoroelastomer, Perfluoroelastomer |
| Unsuitable material         | : The following compatibility data is suggested based on similar product data and/or industry experience: Mild steel, Stainless Steel 304, Stainless Steel 316L, EPDM, Nitrile, Plasite 7122   |

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

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

|   |  |
|---|--|
| Biological occupational exposure limits | : Not applicable   |
| Engineering measures                    | : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards. |

#### Personal protective equipment

|                 |   |
|-----------------|---|
| Eye protection  | : Safety goggles<br>Face-shield   |
| Hand protection | : Wear the following personal protective equipment:<br>Wear protective gloves.<br>Laminate film<br>Nitrile<br>Unsupported neoprene<br>PVC<br>Natural rubber<br>Neoprene/natural rubber blend<br>Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. |

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|------------------------|---|
| Skin protection        | : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing<br>Chemical resistant apron  |
| Respiratory protection | : In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used.<br>If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.<br><br>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                                  | : light green             |
| Odour                                   | : Chlorine                |
| Flash point                             | : does not flash          |
| pH                                      | : > 12.5,(1 %)            |
| Odour Threshold                         | : no data available       |
| Melting point/freezing point            | : no data available       |
| Initial boiling point and boiling range | : 100.0 °C                |
| Evaporation rate                        | : no data available       |
| Flammability (solid, gas)               | : no data available       |
| Upper explosion limit                   | : no data available       |
| Lower explosion limit                   | : no data available       |
| Vapour pressure                         | : no data available       |
| Relative vapour density                 | : no data available       |
| Relative density                        | : 1.18 - 1.29, (20.0 °C), |
| Density                                 | : no data available       |
| Water solubility                        | : completely soluble      |
| Solubility in other solvents            | : no data available       |
| Partition coefficient: n-octanol/water  | : no data available       |
| Auto-ignition temperature               | : no data available       |
| Thermal decomposition                   | : no data available       |
| Viscosity, dynamic                      | : no data available       |
| Viscosity, kinematic                    | : no data available       |
| Molecular weight                        | : no data available       |
| VOC                                     | : 0 %                     |

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### 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                | : None known.   |
| Incompatible materials             | : Strong acids  |
| Hazardous decomposition products   | : Decomposition products may include the following materials:<br>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        | : 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

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

#### Toxicity

##### Product

|                                   |   |
|-----------------------------------|---|
| Acute oral toxicity               | : no data available   |
| Acute inhalation toxicity         | : no data available   |
| Acute dermal toxicity             | : no data available   |
| Skin corrosion/irritation         | : no data available   |
| Serious eye damage/eye irritation | : no data available   |
| Respiratory or skin sensitization | : no data available   |
| Carcinogenicity                   | : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |

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Reproductive effects : No toxicity to reproduction  
Germ cell mutagenicity : Contains no ingredient listed as a mutagen  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : No aspiration toxicity classification

### Components

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

### Components

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

### Human Hazard Characterization

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

## Section: 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Environmental Effects : Very toxic to aquatic life.

### Product

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

### Components

Toxicity to fish : Sodium Hypochlorite  
EC50 : 0.14 mg/l  
Exposure time: 96 h

### Components

Toxicity to daphnia and other aquatic invertebrates : Sodium Hypochlorite  
EC50 : 0.071 mg/l  
Exposure time: 48 h

### Persistence and degradability

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

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information

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provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

|       |            |
|-------|------------|
| Air   | : <5%      |
| Water | : 30 - 50% |
| Soil  | : 50 - 70% |

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

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

#### ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION

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

### Section: 13. DISPOSAL CONSIDERATIONS

|                         |  |
|-------------------------|--|
| 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

|                            |                         |
|----------------------------|-------------------------|
| UN/ID No.                  | : UN 1791               |
| Proper shipping name       | : HYPOCHLORITE SOLUTION |
| Technical name(s)          | : Sodium Hypochlorite   |
| Transport hazard class(es) | : 8                     |
| Packing group              | : III                   |

#### Air transport (IATA)

|                            |                         |
|----------------------------|-------------------------|
| UN/ID No.                  | : UN 1791               |
| Proper shipping name       | : HYPOCHLORITE SOLUTION |
| Technical name(s)          | : Sodium Hypochlorite   |
| Transport hazard class(es) | : 8                     |
| Packing group              | : III                   |

#### Sea transport (IMDG/IMO)

|                      |                         |
|----------------------|-------------------------|
| UN/ID No.            | : UN 1791               |
| Proper shipping name | : HYPOCHLORITE SOLUTION |

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Technical name(s) : Sodium Hypochlorite  
Transport hazard class(es) : 8  
Packing group : III

Special precautions for user : No special precautions required.

### Section: 15. REGULATORY INFORMATION

#### APPLICABLE REGULATIONS, SINGAPORE

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

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

Not applicable

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

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

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

##### 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.

##### Taiwan Chemical Substance Inventory

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

##### United States TSCA Inventory

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

##### Canadian Domestic Substances List (DSL)

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

### Section: 16. OTHER INFORMATION

Revision Date : 29.11.2019



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Version Number : 1.5A  
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.