

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCON™ 7649

Other means of identification : Not applicable.

Recommended use : DEPOSIT CONTROL CHEMICAL

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 : 12/05/2018

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 3
Acute toxicity (Inhalation) : Category 3
Skin irritation (Dermal) : Category 2
Serious eye damage : Category 1
Skin sensitization : Category 1

GHS Label element

Hazard pictograms :



Signal Word :

Danger

Hazard Statements :

Causes serious eye damage.
May cause an allergic skin reaction.
Causes skin irritation.
Toxic if swallowed or if inhaled

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. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair):

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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. If skin irritation or rash occurs: Get medical advice/ attention. Wash contaminated clothing before reuse.

Storage:

Store in a well-ventilated place. Keep container tightly closed. 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

Chemical Name	CAS-No.	Concentration: (%)
Polyethylene Glycol	25322-68-3	30 - 60
2,2-Dibromo-3-nitrilopropionamide	10222-01-2	10 - 30
Sodium Bromide	7647-15-6	1 - 5
Dibromoacetonitrile	3252-43-5	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.

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 immediately.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) 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 : 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 : Avoid contact with skin and eyes. 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 labelled containers.
- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Polypropylene, PTFE, Polyvinylidene difluoride, CPVC (rigid), HDPE (high density polyethylene), Nylon, Perfluoroelastomer, Plasite 4300
The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Polypropylene, Polyethylene, Hastelloy C-276, HDPE (high density polyethylene), PTFE, Fluoroelastomer
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Mild steel, Neoprene, Stainless Steel 304, Stainless Steel 316L, Plexiglass, EPDM, Fluoroelastomer, Nitrile, Plasite 7122
The following compatibility data is suggested based on similar product data and/or industry experience: Copper, Brass, Aluminum, Mild steel, Buna-N, Ethylene propylene, Neoprene, Polyurethane, Stainless Steel 304, Stainless Steel 316L, Carbon steel, Chlorosulfonated polyethylene rubber

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Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Polyethylene Glycol	25322-68-3	TWA (Aerosol.)	10 mg/m ³	AIHA WEEL

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
Viton® gloves
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Combined particulates and organic 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 : clear colourless to amber

Odour : Mild, Disinfectant

Flash point : > 100 °C, Method: ASTM D 92, Cleveland open cup

pH : 1.5 - 5.0,(100 %), Method: ASTM E 70

Odour Threshold : no data available

Melting point/freezing point : POUR POINT: -45 °C, ASTM D-97
Freezing Point: -50 °C

Initial boiling point and boiling range : > 70 °C, Decomposes on heating.

Evaporation rate : no data available

Flammability (solid, gas) : no data available

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Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: < 0.1 mm Hg, (21 °C),
Relative vapour density	: no data available
Relative density	: 1.20 - 1.30, (23 °C), ASTM D-1298
Density	: 10.0 - 10.8 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 138 mPa.s (20 °C)
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: 9.85 %, 125.82 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	: Heat Extremes of temperature
Incompatible materials	: Contact with strong alkalies (e.g. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide, sulfide, hypochlorites, chlorites) may generate heat, splattering or boiling and toxic vapors. Oxidizing agents Aluminum
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NOx) metal oxides

Section: 11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects

Eyes : Causes serious eye damage.

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- Skin : Causes skin irritation. May cause allergic skin reaction.
- Ingestion : Toxic if swallowed.
- Inhalation : Toxic if inhaled.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

- Eye contact : Redness, Pain, Corrosion
- Skin contact : Redness, Irritation, Allergic reactions
- Ingestion : No information available.
- Inhalation : Respiratory irritation, Cough

Toxicity

Product

- Acute oral toxicity : LD50 rat: 178 - 235 mg/kg
Test substance: Active Substance
LD50 guinea pig: 118 mg/kg
Test substance: Active Substance
rabbit: 118 mg/kg
Test substance: Active Substance
- Acute inhalation toxicity : LC50 rat: 1.4 mg/l
Exposure time: 4 hrs
Test atmosphere: vapour
Test substance: Product
rat: 1.25 mg/l
Exposure time: 4 hrs
Test atmosphere: vapour
Test substance: Product
- 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
- IARC **Group 2B: Possibly carcinogenic to humans** Active ingredient did not cause cancer in laboratory animals. There is evidence that dibromoacetonitrile (DBAN), a possible by-product of 2,2-dibromo-3-nitrilopropionamide (DBNPA), can produce cancer in laboratory animals. However, the relevance of this to humans is unknown.
- Dibromoacetonitrile 3252-43-5

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OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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 : Polyethylene Glycol
LD50 rabbit: 20,000 mg/kg
Sodium Bromide
LD50 rabbit: > 2,000 mg/kg

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects : Toxic to aquatic life.

Product

Toxicity to fish : LC50 *Lepomis macrochirus* (Bluegill sunfish): 8.9 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 *Oncorhynchus mykiss* (rainbow trout): 3.6 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 *Cyprinodon variegatus* (sheepshead minnow): 7.5 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 *Pimephales promelas* (fathead minnow): 1.36 mg/l
Exposure time: 96 hrs
Test substance: Active Substance

LC50 *Oncorhynchus mykiss* (rainbow trout): 1 mg/l
Exposure time: 96 hrs
Test substance: Active Substance

LC50 *Cyprinodon variegatus* (sheepshead minnow): 1.4 mg/l
Exposure time: 96 hrs
Test substance: Active Substance

LC50 Bluegill Sunfish: 1.3 mg/l

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Exposure time: 96 hrs
Test substance: Active Substance

LC50 *Leuciscus idus* (Golden orfe): 4.7 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC *Lepomis macrochirus* (Bluegill sunfish): 6.5 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC *Oncorhynchus mykiss* (rainbow trout): 2.8 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC *Cyprinodon variegatus* (sheepshead minnow): 3.2 mg/l
Exposure time: 96 hrs
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : LC50 *Mysid Shrimp (Mysidopsis bahia)*: 4.2 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 *Daphnia magna* (Water flea): 4.3 mg/l
Exposure time: 48 hrs
Test substance: Product

LC50 *Daphnia magna* (Water flea): 1.24 mg/l
Exposure time: 48 hrs
Test substance: Active Substance

LC50 Grass Shrimp: 11.5 mg/l
Exposure time: 96 hrs
Test substance: Active Substance

LC50 *Acartia tonsa*: 1.78 mg/l
Exposure time: 48 hrs
Test substance: Product

LC50 *Ceriodaphnia dubia*: 6.67 mg/l
Exposure time: 48 hrs
Test substance: Product

EC50 *Mysid Shrimp (Mysidopsis bahia)*: 3.2 mg/l
Exposure time: 96 hrs
Test substance: Product

EC50 *Daphnia magna* (Water flea): 2.5 mg/l
Exposure time: 48 hrs
Test substance: Product

NOEC *Daphnia magna* (Water flea): 3.6 mg/l
Exposure time: 48 hrs
Test substance: Product

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NOEC Ceriodaphnia dubia: 5.0 mg/l
Exposure time: 48 hrs
Test substance: Product

Toxicity to algae : LC50 Marine Algae (Skeletonema costatum): 1.5 mg/l
Exposure time: 72 hrs
Test substance: Product

Toxicity to bacteria : LC50 Pseudomonas putida: > 2.0 mg/l
Test substance: Product

Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : 2,2-Dibromo-3-nitrilopropionamide
NOEC: 0.25 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

Persistence and degradability

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

Total Organic Carbon (TOC) : 280,000 mg/l

Chemical Oxygen Demand (COD): 1,110,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	1,100 mg/l	Product

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 : 10 - 30%
Soil : 70 - 90%

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

Bioaccumulative potential

This substance has a low potential to bioconcentrate.

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

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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 : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s) : 2,2-DIBROMO-3-NITRILOPROPIONAMIDE
UN/ID No. : UN 3265
Transport hazard class(es) : 8
Packing group : III

Air transport (IATA)

- Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s) : 2,2-DIBROMO-3-NITRILOPROPIONAMIDE
UN/ID No. : UN 3265
Transport hazard class(es) : 8
Packing group : III

Sea transport (IMDG/IMO)

- Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s) : 2,2-DIBROMO-3-NITRILOPROPIONAMIDE
UN/ID No. : UN 3265
Transport hazard class(es) : 8
Packing group : III

*Marine pollutant : 2,2-Dibromo-3-nitripropionamide

* Note: This product is regulated as a Marine Pollutant when shipped by Rail or Highway (in bulk quantities), and when shipped by water in all quantities.

Section: 15. REGULATORY INFORMATION

TSCA list : Not relevant

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EPA Reg. No. : 1706-138

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

CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

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 : The following components are subject to reporting levels established by SARA Title III, Section 313:

2,2-Dibromo-3-nitrilopropionamide	10222-01-2	10 - 30 %
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California Prop. 65

 **WARNING:** Cancer - www.P65Warnings.ca.gov
Dibromoacetonitrile

3252-43-5

This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

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.

Australia. Industrial Chemical (Notification and Assessment) Act

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

Canadian Domestic Substances List (DSL)

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

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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

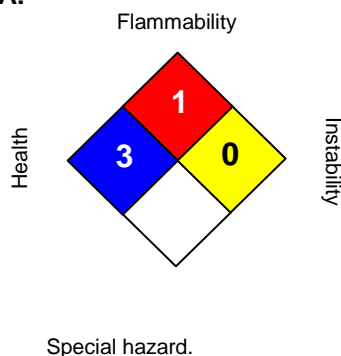
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

Taiwan Chemical Substance Inventory

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

Section: 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

Revision Date : 12/05/2018
Version Number : 2.0
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit www.nalco.com and request access.