Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: NALCO® 90005
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: 02/09/2015

Section: 2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity (Oral): Category 3
Acute toxicity (Inhalation): Category 3
Acute toxicity (Dermal): Category 4
Skin corrosion: Category 1B
Serious eye damage/eye irritation: Category 1

GHS Label element
Hazard pictograms:

Signal Word: Danger
Hazard Statements: Toxic if swallowed or if inhaled
Harmful in contact with skin.
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: Immediately call a POISON CENTER or doctor/physician. 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 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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration: (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl-Dioctyl-Ammonium Chloride</td>
<td>5538-94-3</td>
<td>50</td>
</tr>
<tr>
<td>Glycerol</td>
<td>56-81-5</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

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 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.

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, 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: 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.


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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>56-81-5</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

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 Colorless - Light yellow

Odour : Alcoholic

Flash point : > 93.3 °C
Method: Seta closed cup

pH : 6.5 - 9.0, 10 %

Odour Threshold : no data available

Melting point/freezing point : MELTING POINT: -12 °C

Initial boiling point and boiling range : 95.0 °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 : 0.96 (25.0 °C)

Density : 8.0 lb/gal

Water solubility : completely soluble

Solubility in other solvents : no data available

Partition coefficient: n-octanol/water : no data available
SAFETY DATA SHEET
NALCO® 90005

Auto-ignition temperature : no data available
Thermal decomposition temperature : no data available
Viscosity, dynamic : 100 mPa.s (25 °C)
Viscosity, kinematic : no data available
VOC : 9.0 %

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. Reducing agents
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.
Ingestion : Toxic if swallowed. Causes digestive tract burns.
Inhalation : Toxic 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
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Species: Rabbit</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Species: rabbit</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>no data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Reproductive effects</td>
<td>no data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No evidence of developmental or fetotoxic effects observed at exposure doses ranging from 10 to 50 mg/kg/day from day 6 through 15 of gestation.</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>no data available</td>
</tr>
</tbody>
</table>

**Components**

**Acute oral toxicity**
- Dimethyl-Dioctyl-Ammonium Chloride
  - LD50 rat: 238 mg/kg
- Glycerol
  - LD50 rat: 18,300 mg/kg

**Acute inhalation toxicity**
- Dimethyl-Dioctyl-Ammonium Chloride
  - LC50 rat: 0.07 mg/l
  - Exposure time: 4 h

**Acute dermal toxicity**
- Dimethyl-Dioctyl-Ammonium Chloride
  - LD50 rabbit: 2,930 mg/kg
- Glycerol
  - LD50 rabbit: 23,000 mg/kg

---

**Section: 12. ECOLOGICAL INFORMATION**
Ecotoxicity

Environmental Effects: Very toxic to aquatic life.

Product

Toxicity to fish: LC50 Rainbow Trout: 0.7 mg/l
Exposure time: 96 hrs
Test substance: Product
LC50 Bluegill Sunfish: 0.1 mg/l
Exposure time: 48 hrs
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates: LC50 Daphnia magna: 0.1 mg/l
Exposure time: 48 hrs
Test substance: Product

Toxicity to terrestrial organisms: LC50 Mallard Duck: 240 mg/kg
Test substance: Product
LC50 Bobwhite Quail: 2,625 mg/kg
Exposure time: 8 Days
Test substance: Product

Persistence and degradability

Total Organic Carbon (TOC): 410,000 mg/l
Chemical Oxygen Demand (COD): 1,100,000 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: 10 - 30%
Soil: 10 - 30%

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

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: DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.
Technical name(s): QUATERNARY AMMONIUM CHLORIDE(S)
UN/ID No.: UN 1903
Transport hazard class(es): 8
Packing group: II

Air transport (IATA)

Proper shipping name: DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.
Technical name(s): QUATERNARY AMMONIUM CHLORIDE(S)
UN/ID No.: UN 1903
Transport hazard class(es): 8
Packing group: II

Sea transport (IMDG/IMO)

Proper shipping name: DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.
Technical name(s): QUATERNARY AMMONIUM CHLORIDE(S)
UN/ID No.: UN 1903
Transport hazard class(es): 8
Packing group: II

Section: 15. REGULATORY INFORMATION

EPA Reg. No.: 6836-60-1706

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
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)
The substances in this preparation are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

EUROPE
The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

Section: 16. OTHER INFORMATION

NFPA:

Special hazard.

HMIS III:

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

Revision Date: 02/09/2015
Version Number: 1.0
Prepared By: Regulatory Affairs

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

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

For additional copies of an MSDS visit www.nalco.com and request access.