

**PRODUCT** 

**NALCO® 90005** 

**EMERGENCY TELEPHONE NUMBER(S)** 

(800) 424-9300 (24 Hours) CHEMTREC

# 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:

**NALCO® 90005** 

COMPANY IDENTIFICATION:

Nalco Company 1601 W. Diehl Road Naperville, Illinois 60563-1198

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NFPA 704M/HMIS RATING

HEALTH: 3/3 FLAMMABILITY: 1/1 INSTABILITY: 0/0 OTHER: 0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme \* = Chronic Health Hazard

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Our hazard evaluation has identified the following chemical substance(s) as hazardous. Consult Section 15 for the nature of the hazard(s).

Hazardous Substance(s)

CAS NO

% (w/w)

Glycerol

56-81-5

5.0 - 10.0

Dimethyl-Dioctyl-Ammonium Chloride

5538-94-3

30.0 - 60.0

## 3. HAZARDS IDENTIFICATION

## \*\*EMERGENCY OVERVIEW\*\*

## **DANGER**

Corrosive. May cause tissue damage. Harmful if swallowed.

Keep container tightly closed and in a well-ventilated place. Do not get in eyes, on skin, on clothing. Do not take internally. Avoid breathing vapor. Use with adequate ventilation. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Wear a face shield. Wear chemical resistant apron, chemical splash goggles, impervious gloves and boots. May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.

#### PRIMARY ROUTES OF EXPOSURE:

Eye, Skin, Inhalation

**HUMAN HEALTH HAZARDS - ACUTE:** 

## EYE CONTACT:

Corrosive. Will cause eye burns and permanent tissue damage.

## SKIN CONTACT:

May cause severe irritation or tissue damage depending on the length of exposure and the type of first aid administered.



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#### INGESTION:

Not a likely route of exposure. Corrosive; causes chemical burns to the mouth, throat and stomach. Harmful if swallowed.

#### **INHALATION:**

Irritating, in high concentrations, to the eyes, nose, throat and lungs.

## SYMPTOMS OF EXPOSURE:

Acute:

Inhalation of high concentrations of organic solvents can cause nausea, dizziness, vomiting, stupor or unconsciousness.

Chronic:

A review of available data does not identify any symptoms from exposure not previously mentioned.

#### **HUMAN HEALTH HAZARDS - CHRONIC:**

No adverse effects expected other than those mentioned above.

## 4. FIRST AID MEASURES

#### EYE CONTACT:

Get immediate medical attention. PROMPT ACTION IS ESSENTIAL IN CASE OF CONTACT. Immediately flush eye with water for at least 15 minutes while holding eyelids open.

## SKIN CONTACT:

Get immediate medical attention. Immediately flush with plenty of water for at least 15 minutes. For a large splash, flood body under a shower. Remove contaminated clothing. Wash off affected area immediately with plenty of water. Contaminated clothing, shoes, and leather goods must be discarded or cleaned before re-use.

#### INGESTION:

Get immediate medical attention. DO NOT INDUCE VOMITING. If conscious, washout mouth and give water to drink.

## **INHALATION:**

Get medical attention. Remove to fresh air, treat symptomatically.

#### NOTE TO PHYSICIAN:

Probable mucosal damage may contraindicate the use of gastric lavage. Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

## 5. FIRE FIGHTING MEASURES

FLASH POINT:

> 200 F/ > 93.3 °C

#### **EXTINGUISHING MEDIA:**

Foam, Carbon dioxide, Dry powder, Other extinguishing agent suitable for Class B fires, For large fires, use water spray or fog, thoroughly drenching the burning material.

Water mist may be used to cool closed containers.



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#### FIRE AND EXPLOSION HAZARD:

May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING:

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

## 6. ACCIDENTAL RELEASE MEASURES

#### PERSONAL PRECAUTIONS:

Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Keep people away from and upwind of spill/leak. Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Do not touch spilled material. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Notify appropriate government, occupational health and safety and environmental authorities.

#### METHODS FOR CLEANING UP:

SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. LARGE SPILLS: Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Clean contaminated surfaces with water or aqueous cleaning agents. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

#### **ENVIRONMENTAL PRECAUTIONS:**

This product may pose a risk to the aquatic ecosystem if released., Prevent material from entering sewers or waterways.

## 7. HANDLING AND STORAGE

## HANDLING:

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labeled.

#### STORAGE CONDITIONS:

Store in suitable labeled containers. Store the containers tightly closed. Store separately from oxidizers. Store separately from reducing agents.

#### SUITABLE CONSTRUCTION MATERIAL:

Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## OCCUPATIONAL EXPOSURE LIMITS:

Exposure guidelines have not been established for this product. Available exposure limits for the substance(s) are shown below.

Substance(s)

Category:

ppm

mg/m3

Non-Standard

Unit

Glycerol (Mist)

ACGIH/TWA

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Glycerol (Respirable fraction.) Glycerol (Total dust.) OSHA Z1/PEL OSHA Z1/PEL 5 15

#### **ENGINEERING MEASURES:**

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

## **RESPIRATORY PROTECTION:**

Where concentrations in air may exceed the limits given in this section, the use of a half face filter mask or air supplied breathing apparatus is recommended. A suitable filter material depends on the amount and type of chemicals being handled. Consider the use of filter type: Multi-contaminant cartridge. with a Particulate pre-filter. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

#### HAND PROTECTION:

When handling this product, the use of chemical gauntlets is recommended. The choice of work glove depends on work conditions and what chemicals are handled. Please contact the PPE manufacturer for advice on what type of glove material may be suitable. Gloves should be replaced immediately if signs of degradation are observed.

#### SKIN PROTECTION:

When handling this product, the use of overalls, a chemical resistant apron and rubber boots is recommended. A full slicker suit is recommended if gross exposure is possible.

#### **EYE PROTECTION:**

Wear a face shield with chemical splash goggles.

### HYGIENE RECOMMENDATIONS:

Use good work and personal hygiene practices to avoid exposure. Keep an eye wash fountain available. Keep a safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE Liquid

APPEARANCE Clear Colorless - Light yellow

ODOR Alcoholic

SPECIFIC GRAVITY 0.96 @ 77.0 °F / 25.0 °C

DENSITY 8.0 lb/gal SOLUBILITY IN WATER Complete pH (10 %) 6.5 - 9.0

VISCOSITY < 100.0 cps @ 77.0 °F / 25.0 °C

MELTING POINT 10.4 °F / -12 °C INITIAL BOILING POINT 203.0 °F / 95.0 °C



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Note: These physical properties are typical values for this product and are subject to change.

## 10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions.

HAZARDOUS POLYMERIZATION:

Hazardous polymerization will not occur.

CONDITIONS TO AVOID:

Extremes of temperature

MATERIALS TO AVOID:

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:

Under fire conditions:

Oxides of carbon, Oxides of nitrogen

## 11. TOXICOLOGICAL INFORMATION

The following results are for the product, unless otherwise indicated.

**ACUTE ORAL TOXICITY:** 

Species:

Mouse

LD50:

360 - 375 mg/kg

Test Descriptor:

Product

ACUTE DERMAL TOXICITY:

Species:

Rabbit

LD50:

259 mg/kg

Test Descriptor:

80% Active Ingredient

ACUTE INHALATION TOXICITY:

Species:

Rat

LC50:

10 mg/l (1 hrs)

Test Descriptor:

Product

PRIMARY SKIN IRRITATION:

Species:

Rabbit

Draize Score:

/8.0

Test Descriptor:

Remarks:

Severely irritating, US DOT CORROSIVITY TEST: Corrosive



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PRIMARY EYE IRRITATION : Species: Rabbit

Draize Score: /110.0

Test Descriptor:

Remarks: Extremely irritating (Corrosive)

#### SENSITIZATION:

This product is not expected to be a sensitizer.

#### CARCINOGENICITY:

None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

## TERATOGENICITY AND EMBRYOTOXICITY:

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.

### **HUMAN HAZARD CHARACTERIZATION:**

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

## 12. ECOLOGICAL INFORMATION

## ECOTOXICOLOGICAL EFFECTS:

The following results are for the product.

#### **ACUTE FISH RESULTS:**

Species	Exposure	LC50	Test Descriptor
Rainbow Trout	96 hrs	0.7 mg/l	Product
Bluegill Sunfish	48 hrs	0.1 mg/l	Product

## ACUTE INVERTEBRATE RESULTS:

Species	Exposure	LC50	EC50	Test Descriptor
Daphnia magna	48 hrs	0.1 mg/l		Product

#### **AVIAN RESULTS:**

Species	Exposure	LC50	Test Descriptor	
Mallard Duck		240 mg/kg	Product	
Bobwhite Quail	8 Days	2,625 mg/kg	Product	

## PERSISTENCY AND DEGRADATION:

Total Organic Carbon (TOC): 410,000 mg/l



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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	Water	Soil/Sediment
<5%	10 - 30%	10 - 30%

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

#### **BIOACCUMULATION POTENTIAL**

This preparation or material is not expected to bioaccumulate.

#### **ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION**

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

If released into the environment, see CERCLA/SUPERFUND in Section 15.

## 13. DISPOSAL CONSIDERATIONS

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

PLASTIC CONTAINERS: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. METAL CONTAINER: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

## 14. TRANSPORT INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

#### LAND TRANSPORT:

Proper Shipping Name : DISINFECTANTS, LIQUID, CORROSIVE, N.O.S. Technical Name(s) : QUATERNARY AMMONIUM CHLORIDE(S)

UN/ID No: UN 1903

Hazard Class - Primary: 8



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Packing Group:

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Flash Point:

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AIR TRANSPORT (ICAO/IATA):

Proper Shipping Name:

DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.

Technical Name(s):

QUATERNARY AMMONIUM CHLORIDE(S)

UN/ID No:

UN 1903

Hazard Class - Primary :

8

Packing Group:

8

MARINE TRANSPORT (IMDG/IMO):

Proper Shipping Name:

DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.

Technical Name(s):

QUATERNARY AMMONIUM CHLORIDE(S)

UN/ID No:

UN 1903

Hazard Class - Primary : Packing Group :

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## 15. REGULATORY INFORMATION

This section contains additional information that may have relevance to regulatory compliance. The information in this section is for reference only. It is not exhaustive, and should not be relied upon to take the place of an individualized compliance or hazard assessment. Nalco accepts no liability for the use of this information.

#### NATIONAL REGULATIONS, USA:

#### OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following substance(s) in this product is/are hazardous and the reason(s) is/are shown below.

Glycerol: Exposure Limit

Dimethyl-Dioctyl-Ammonium Chloride: Corrosive, Toxic

#### CERCLA/SUPERFUND, 40 CFR 302:

Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312, AND 313 :

#### SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

## SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370) :

Our hazard evaluation has found this product to be hazardous. The product should be reported under the following indicated EPA hazard categories:

X Immediate (Acute) Health Hazard

Delayed (Chronic) Health Hazard



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Fire Hazard

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Sudden Release of Pressure Hazard

Reactive Hazard

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

## SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):

This product does not contain substances on the List of Toxic Chemicals.

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

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

# NSF NON-FOOD COMPOUNDS REGISTRATION PROGRAM (former USDA List of Proprietary Substances & Non-Food Compounds) :

NSF Registration number for this product is: 140607

This product is acceptable for treatment of cooling and retort water (G5) in and around food processing areas.

# FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA) :

EPA Reg. No. 6836-60-1706

In all cases follow instructions on the product label.

This product has been certified as KOSHER/PAREVE for year-round use EXCEPT FOR THE PASSOVER SEASON by the CHICAGO RABBINICAL COUNCIL.

# FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR 116.4 / formerly Sec. 311 :

This product may contain trace levels (<0.1% for carcinogens, <1% all other substances) of the following substance(s) listed under the regulation. Additional components may be unintentionally present at trace levels.

Substance(s)	Citations	
Acetaldehyde	Sec. 311	***
Dimethylnitrosoamine	Sec. 307	<del></del>

CLEAN AIR ACT, Sec. 112 (Hazardous Air Pollutants, as amended by 40 CFR 63), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances):

This product may contain trace levels (<0.1% for carcinogens, <1% all other substances) of the following substance(s) listed under the regulation. Additional components may be unintentionally present at trace levels.

Substance(s)	Citations	
<ul><li>Acetaldehyde</li><li>Dimethylnitrosoamine</li></ul>	Sec. 112	



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#### CALIFORNIA PROPOSITION 65:

Substances known to the State of California to cause cancer and/or reproductive toxicity are present as an impurity or residue.

Substance(s)	Concentration	EFFECTS	
<ul><li>Acetaldehyde</li><li>Dimethylnitrosoamine</li></ul>	.0001 % < .0001 %	Causes Cancer	

#### MICHIGAN CRITICAL MATERIALS:

Substances listed under this regulation are not intentionally added or expected to be present in this product. Listed components may be present at trace levels.

#### STATE RIGHT TO KNOW LAWS:

The following substances are disclosed for compliance with State Right to Know Laws:

Glycerol

56-81-5

#### INTERNATIONAL CHEMICAL CONTROL LAWS:

#### 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.

#### 16. OTHER INFORMATION

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

#### REFERENCES

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH., (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.



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IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (TOMES CPS™ CD-ROM Version),

Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA), (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH,

(TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

Ariel Insight<sup>™</sup> (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight<sup>™</sup> CD-ROM Version), Ariel Research Corp., Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

Prepared By: Product Safety Department

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