

PRODUCT

H-130 Microbiocide

EMERGENCY TELEPHONE NUMBER(S)
(800) 424-9300 (24 Hours) CHEMTREC

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : H-130 Microbiocide

APPLICATION: BIOCIDETWIN-CHAIN QUATERNARY AMMONIUM

COMPOUND CONCENTRATE

COMPANY IDENTIFICATION : Nalco Company

1601 W. Diehl Road Naperville, Illinois 60563-1198

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NFPA 704M/HMIS RATING

HEALTH: 3/3 FLAMMABILITY: 2/2 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)
Didecyl-Dimethyl-Ammonium chloride 7173-51-5 30 - 60
Ethanol 64-17-5 10 - 30

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER

Combustible. Corrosive. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin, or on clothing. Wear protective eyewear, (goggles or face shield), protective clothing, and rubber gloves. May be fatal if swallowed or inhaled. Do not breathe vapor or spray mist. Wear a dust/mist filtering respirator, or a NIOSH approved respirator with a Particulate pre-filter. Harmful if absorbed through the skin. Prolonged or repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

Keep away from heat. Keep away from sources of ignition - No smoking. Use with adequate ventilation. Keep container tightly closed and in a well-ventilated place.

Wear chemical resistant apron, chemical splash goggles, impervious gloves and boots.

Combustible Liquid; may form combustible mixtures at or above the flash point. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition. May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. May evolve HCl under fire conditions. May evolve ammonia under fire conditions.



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PRIMARY ROUTES OF EXPOSURE:

Eye, Skin

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. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if absorbed through skin.

INGESTION:

Corrosive, causes burns to gastro-intestinal tract. Nausea, vomiting and stomach pain may occur. In severe cases blood may be vomited. May be fatal if swallowed.

INHALATION:

Irritating, in high concentrations, to the eyes, nose, throat and lungs. Inhalation of vapors may cause headache, nausea, and vomiting. Can cause central nervous system depression. Large exposures may be fatal.

SYMPTOMS OF EXPOSURE:

Acute:

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

Chronic:

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

AGGRAVATION OF EXISTING CONDITIONS:

Skin contact may aggravate an existing dermatitis condition.

4. FIRST AID MEASURES

First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. For eyes, call a physician. Remove and wash contaminated clothing before reuse.

If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

NOTE TO PHYSICIAN:

Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.



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5. FIRE FIGHTING MEASURES

FLASH POINT: 109 °F / 43 °C (SETAFLASH)

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.

FIRE AND EXPLOSION HAZARD:

Combustible Liquid; may form combustible mixtures at or above the flash point. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition. May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. May evolve HCl under fire conditions. May evolve ammonia 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). Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Ensure adequate ventilation. Remove sources of ignition. Ensure clean-up is conducted by trained personnel only. 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. Wash site of spillage thoroughly 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).

ENVIRONMENTAL PRECAUTIONS:

This product is toxic to fish and other water organisms. Do not discharge directly into lakes, ponds, streams, waterways or public water supplies.

7. HANDLING AND STORAGE

HANDLING:

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Avoid release of vapors or mists into workplace air. Keep the containers closed when not in use. Do not use in locations where vapor is likely to travel to welding flames or arcs or to other hot surfaces. Vapors are much heavier than air, this can result in uneven distribution. Have emergency equipment (for fires, spills, leaks, etc.) readily available.



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STORAGE CONDITIONS:

Store away from heat and sources of ignition. Connections must be grounded to avoid electrical charges. Store the containers tightly closed. Store separately from oxidizers. Store in suitable labeled containers.

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.

 Country/Source
 Substance(s)
 Category:
 ppm
 mg/m3

 Ethanol
 OSHA Z1/PEL
 1,000
 1,900

ACGIH/STEL 1,000

ENGINEERING MEASURES:

Use general ventilation with local exhaust ventilation.

RESPIRATORY PROTECTION:

If significant mists, vapors or aerosols are generated an approved respirator is recommended. An organic vapor cartridge with dust/mist prefilter may be used. 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:

Wear impervious apron and boots. A full slicker suit is recommended if gross exposure is possible.

EYE PROTECTION:

Wear chemical splash goggles.

HYGIENE RECOMMENDATIONS:

Use good work and personal hygiene practices to avoid exposure. Keep a safety shower available. Keep an eye wash fountain 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 Light yellow

ODOR Alcoholic



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SPECIFIC GRAVITY 0.93 @ 77 °F / 25 °C

DENSITY 7.7 lb/gal SOLUBILITY IN WATER Complete pH (1 %) 7.0 - 8.0

VISCOSITY < 100 cps @ 77 °F / 25 °C

FREEZING POINT 12 °F /

VAPOR PRESSURE 30 mm Hg @ 77 °F / 25 °C

VOC CONTENT 10 % EPA Method 24

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:

Heat and sources of ignition including static discharges. 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. Contact with reducing agents (e.g. hydrazine, sulfites, sulfites, aluminum or magnesium dust) may generate heat, fires, explosions and toxic vapors.

HAZARDOUS DECOMPOSITION PRODUCTS:

Under fire conditions: Oxides of carbon, Oxides of nitrogen, HCl

11. TOXICOLOGICAL INFORMATION

The following results are for the product.

ACUTE ORAL TOXICITY:
Species: Rat

LD50: 645 mg/kg Test Descriptor: Product

ACUTE DERMAL TOXICITY:
Species: Rabbit
LD50: > 4 g/kg
Test Descriptor: Product

SENSITIZATION:

Repeated or prolonged contact may cause skin sensitization.



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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).

MUTAGENICITY:

An ingredient in this product has produced mutagenic effects in both germ and somatic cells of experimental animals and has shown positive results in in vitro screening test on human lymphocytes for mutagenicity.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL EFFECTS:

The following results are for the product.

ACUTE FISH RESULTS:

| Species | Exposure | LC50 | Test Descriptor |
|------------------|----------|-----------|-----------------|
| Rainbow Trout | 96 hrs | 2.2 mg/l | |
| Bluegill Sunfish | 96 hrs | 0.92 mg/l | |

ACUTE INVERTEBRATE RESULTS:

| Species | Exposure | LC50 | EC50 | Test Descriptor |
|---------------------------------|----------|-----------|------|-----------------|
| Daphnia magna | 48 hrs | 0.19 mg/l | | |
| Mysid Shrimp (Mysidopsis bahia) | 96 hrs | 0.14 mg/l | | |

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

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: D001

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.



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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) : DIDECYLDIMETHYLAMMONIUM CHLORIDE

UN/ID No: UN 1903

Hazard Class - Primary : 8
Packing Group : II

Flash Point: 43 °C / 109 °F

AIR TRANSPORT (ICAO/IATA):

Proper Shipping Name: CORROSIVE LIQUID, FLAMMABLE, N.O.S.

Technical Name(s): DIDECYLDIMETHYLAMMONIUM CHLORIDE, ETHANOL

UN/ID No: UN 2920

Hazard Class - Primary : 8
Hazard Class - Secondary : 3
Packing Group : II

IATA Cargo Packing Instructions:

IATA Cargo Aircraft Limit: (Max net quantity per package)

MARINE TRANSPORT (IMDG/IMO):

Proper Shipping Name: CORROSIVE LIQUID, FLAMMABLE, N.O.S.

Technical Name(s): DIDECYLDIMETHYLAMMONIUM CHLORIDE, ETHANOL

UN/ID No: UN 2920

Hazard Class - Primary : 8
Hazard Class - Secondary : 3
Packing Group : II

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.



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Didecyl-Dimethyl-Ammonium chloride: Corrosive

Ethanol: Flammable

CERCLA/SUPERFUND, 40 CFR 117, 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
- X Fire Hazard
- 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.

${\tt FEDERAL\ INSECTICIDE,\ FUNGICIDE\ AND\ RODENTICIDE\ ACT\ (FIFRA):}$

EPA Reg. No. 1706-186

In all cases follow instructions on the product label.

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

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.

CLEAN AIR ACT, Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances):

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.



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CALIFORNIA PROPOSITION 65:

Substances listed under California Proposition 65 are not intentionally added or expected to be present in this product.

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:

This product is a registered biocide and is exempt from State Right to Know Labelling Laws.

NATIONAL REGULATIONS, CANADA:

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS):

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION:

Pesticide controlled products are not regulated under WHMIS.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

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

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.

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



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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 (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 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

Date issued: 07/31/2009 Version Number: 3.0