NALCO

SAFETY DATA SHEET

PRODUCT

EC6116A

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

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : **EC6116A**

APPLICATION : BIOCIDE

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

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

NFPA 704M/HMIS RATING
HEALTH : 3 / 3* FLAMMABILITY : 1 / 1 INSTABILITY : 1 / 1 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)
Dibromoacetonitrile	3252-43-5	1.0 - 5.0
2,2-Dibromo-3-nitrilopropionamide	10222-01-2	10.0 - 30.0
Polyethylene Glycol	25322-68-3	30.0 - 60.0

3. HAZARDS IDENTIFICATION

****EMERGENCY OVERVIEW****

DANGER
CORROSIVE: Causes irreversible eye damage. May be fatal if inhaled or swallowed. Causes skin irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
Do not get in eyes, on skin or on clothing. Do not breathe dust. When loading or handling wear protective eyewear (goggles or face shield), long-sleeved shirt and long pants, socks, shoes, chemically resistant gloves and a NIOSH approved respirator. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing separated from other before reuse.

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. May cause sensitization by skin contact.

INGESTION :
Not a likely route of exposure. Corrosive; causes chemical burns to the mouth, throat and stomach. May be fatal if swallowed.

INHALATION :
Irritating, in high concentrations, to the eyes, nose, throat and lungs. Harmful if inhaled. Trace levels of cyanogen bromide and dibromoacetonitrile vapors may be present in unvented containers and may be irritating. Vapours and/or aerosols which may be formed at elevated temperatures or during agitation may cause systemic effects.

AGGRAVATION OF EXISTING CONDITIONS :
A review of available data does not identify any worsening of existing conditions.

4. FIRST AID MEASURES

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN :
Aspiration may cause lung damage. 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 : > 360 °F / > 182 °C (COC)

EXTINGUISHING MEDIA :
This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for surrounding fire.

FIRE AND EXPLOSION HAZARD :

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. 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. Apply this product only as specified on this label. Do not contaminate water by cleaning of equipment, or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

7. HANDLING AND STORAGE

HANDLING :
Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. 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 the containers tightly closed. Store separately from oxidizers. Store in suitable labeled containers. Containers require venting bungs to avoid over pressure. Storage temperature <35°C. 6 month shelf life under given storage conditions

SUITABLE CONSTRUCTION MATERIAL :
PVC, Polypropylene, Polyethylene, Hastelloy C-276, HDPE (high density polyethylene), PTFE, Fluoroelastomer

UNSUITABLE CONSTRUCTION MATERIAL :
Copper, Brass, Aluminum, Mild steel, Buna-N, Ethylene propylene, Neoprene, Polyurethane, Stainless Steel 304, Stainless Steel 316L, Carbon steel, Chlorosulfonated polyethylene rubber

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)	Basis	ppm	mg/m3	Non-Standard Unit
Dibromoacetonitrile	Manufacturer's Recommendation/ TWA (Skin)			
	Manufacturer's Recommendation/ CEILING (Skin)	0.1		
2,2-Dibromo-3-nitrilopropionamide	Manufacturer's Recommendation/ TWA			
	Manufacturer's Recommendation/ CEILING		2	
Polyethylene Glycol	AIHA/WEEL/TWA		10	

* A skin notation refers to the potential significant contribution to overall exposure by the cutaneous route, including mucous membranes and the eyes.

ENGINEERING MEASURES :
General ventilation is recommended. Use local exhaust ventilation if necessary to control airborne mist and vapor.

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: Organic vapor 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 :
Wear chemical resistant apron, chemical splash goggles, impervious gloves and boots. A full slicker suit is recommended if gross exposure is possible.

EYE PROTECTION :
Wear a face shield with chemical splash goggles, unless wearing a full-face respirator.

HYGIENE RECOMMENDATIONS :
Use good work and personal hygiene practices to avoid exposure. Eye wash station and safety shower are necessary. 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.

HUMAN EXPOSURE CHARACTERIZATION :
Based on our recommended product application and personal protective equipment, the potential human exposure is:
Low

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Liquid
APPEARANCE	Clear Colorless Amber
ODOR	Mild, Disinfectant
SPECIFIC GRAVITY	1.20 - 1.30 @ 73 °F / 23 °C
DENSITY	10.0 - 10.8 lb/gal
SOLUBILITY IN WATER	Complete
pH (100 %)	1.5 - 5.0
VISCOSITY	138 cps @ 68 °F / 20 °C
POUR POINT	-49 °F / -45 °C
FREEZING POINT	-58 °F / -50 °C
BOILING POINT	> 158 °F / > 70 °C Decomposes
VAPOR PRESSURE	< 0.1 mm Hg @ 70 °F / 21 °C
VOC CONTENT	9.85 % 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
Keep at temperature not exceeding 95 °F

MATERIALS TO AVOID :
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 :
Decomposes cyanogenbromide and dibromoacetonitrile, Bromine, Oxides of carbon

11. TOXICOLOGICAL INFORMATION

The following results are for the product along with results on the active substances.

ACUTE ORAL TOXICITY :

Species:	Rat
LD50:	178 - 235 mg/kg
Test Descriptor:	Active Substance

Species:	Guinea pig
LD50:	118 mg/kg
Test Descriptor:	Active Substance

Species:	Rabbit
LD50:	118 mg/kg
Test Descriptor:	Active Substance

Species:	Rat
LD50:	510 mg/kg
Test Descriptor:	Product

ACUTE DERMAL TOXICITY :

Species:	Rabbit
LD50:	> 2,000 mg/kg
Test Descriptor:	Product

ACUTE INHALATION TOXICITY :

Species:	Rat
LC50:	1.4 mg/l (4 hrs)
Test Descriptor:	Product
Species:	Rat
LC50:	1.25 mg/l (4 hrs)

Test Descriptor: Product

SENSITIZATION :
Repeated or prolonged contact may cause skin sensitization.

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).

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 along with results on the hazardous components. The following results are for the active components.

Acute Fish Results :

Species	Exposure	Test Type	Value	Test Descriptor
Bluegill Sunfish	96 hrs	LC50	8.9 mg/l	Product
Rainbow Trout	96 hrs	LC50	3.6 mg/l	Product
Sheepshead Minnow	96 hrs	LC50	7.5 mg/l	Product
Fathead Minnow	96 hrs	LC50	1.36 mg/l	Active Substance
Rainbow Trout	96 hrs	LC50	1 mg/l	Active Substance
Sheepshead Minnow	96 hrs	LC50	1.4 mg/l	Active Substance
Bluegill Sunfish	96 hrs	LC50	1.3 mg/l	Active Substance
Gold Orfe	96 hrs	LC50	4.7 mg/l	Product

ACUTE INVERTEBRATE RESULTS :

Species	Exposure	Test Type	Value	Test Descriptor
Mysid Shrimp (Mysidopsis bahia)	96 hrs	LC50	4.2 mg/l	Product
Daphnia magna	48 hrs	LC50	4.3 mg/l	Product
Daphnia magna	48 hrs	LC50	1.24 mg/l	Active Substance
Grass Shrimp	96 hrs	LC50	11.5 mg/l	Active Substance
Acartia tonsa	48 hrs	LC50	1.78 mg/l	Product
Ceriodaphnia dubia	48 hrs	LC50	6.67 mg/l	Product
Mysid Shrimp (Mysidopsis bahia)	96 hrs	EC50	3.2 mg/l	Product
Daphnia magna	48 hrs	EC50	2.5 mg/l	Product

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: D002

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.

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 :	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical Name(s) :	2,2-DIBROMO-3-NITRILOPROPIONAMIDE
UN/ID No :	UN 3265
Hazard Class - Primary :	8
Packing Group :	III
Flash Point :	> 182 °C / > 360 °F

AIR TRANSPORT (ICAO/IATA) :

Proper Shipping Name :	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical Name(s) :	2,2-DIBROMO-3-NITRILOPROPIONAMIDE
UN/ID No :	UN 3265
Hazard Class - Primary :	8
Packing Group :	III

MARINE 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
Hazard Class - Primary :	8
Packing Group :	III
*Marine Pollutant :	2,2-Dibromo-3-nitrilopropionamide

2,2-Dibromo-3-nitrilopropionamide	10222-01-2	10.0 - 30.0

TOXIC SUBSTANCES CONTROL ACT (TSCA) :
This product is exempted under TSCA and regulated under FIFRA. The inerts are on the Inventory List.

FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA) :
EPA Reg. No. 1706-138

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 (Hazardous Air Pollutants, as amended by 40 CFR 63), 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.

CALIFORNIA PROPOSITION 65 :
This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels, which would require a warning under the statute.

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.

INTERNATIONAL CHEMICAL CONTROL LAWS :

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) :
Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

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

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.

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.

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.

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

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