

Appendix B Nalco EC6106A Material Safety Data Sheet



MATERIAL SAFETY DATA SHEET

PRODUCT

EC6106A

EMERGENCY TELEPHONE NUMBER(S)

(800) 424-9300 (24 Hours) CHEMTREC

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : **EC6106A**

COMPANY IDENTIFICATION :
Nalco Energy Services, L.P.
P.O. Box 87
Sugar Land, Texas
77487-0087

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

NFPA 704M/HMIS RATING

HEALTH : 3 / 3 FLAMMABILITY : 3 / 3 INSTABILITY : 0 / 0 OTHER :
0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

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)
Isopropanol	67-63-0	10.0 - 30.0
Fatty amine salt	Proprietary	10.0 - 30.0
N-Coco Alkyl-1,3-Propylenediamine Acetate	61791-64-8	30.0 - 60.0

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER

Flammable. Corrosive. May cause tissue damage. **CORROSIVE. CAUSES EYE AND SKIN DAMAGE.** Harmful or fatal if swallowed. Do not get in eyes, on skin or on clothing. Wear goggles or face shield, rubber gloves and protective clothing when handling. Avoid contamination of food.

Do not get in eyes, on skin, on clothing. Do not take internally. Avoid breathing vapor. Use with adequate ventilation. Keep container tightly closed. Keep away from heat. Keep away from sources of ignition - No smoking. 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 suitable protective clothing, gloves and eye/face protection.

May evolve oxides of carbon (COx) under fire conditions. Flammable Liquid; may release vapors that form flammable 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.

PRIMARY ROUTES OF EXPOSURE :
Eye, Skin



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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.

INGESTION :

Not a likely route of exposure. Corrosive, causes burns to gastro-intestinal tract. Nausea, vomiting and stomach pain may occur. In severe cases blood may be vomited.

INHALATION :

Irritating to the eyes, nose, throat and lungs.

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 :

A review of available data does not identify any worsening of existing conditions.

4. FIRST AID MEASURES

EYE CONTACT :

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

SKIN CONTACT :

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. Get immediate medical attention. Contaminated clothing, shoes, and leather goods must be discarded or cleaned before re-use.

INGESTION :

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

INHALATION :

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

IF IN EYES: Hold eyes 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. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a 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 by a poison control center or doctor.



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IF ON SKIN: 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 INHALED: Move person to fresh air. If person is not breathing, call 911 or ambulances, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice, NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

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 : 77 °F / 25 °C (PMCC)

EXTINGUISHING MEDIA :

Alcohol 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.

Keep containers cool by spraying with water.

FIRE AND EXPLOSION HAZARD :

May evolve oxides of carbon (COx) under fire conditions. Flammable Liquid; may release vapors that form flammable 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.

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. Ensure clean-up is conducted by trained personnel only. Ventilate spill area if possible. Do not touch spilled material. Remove sources of ignition. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). 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 :

Prevent material from entering sewers or waterways.



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7. HANDLING AND STORAGE

HANDLING :

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

STORAGE CONDITIONS :

Store the containers tightly closed. Store in suitable labelled containers. Store away from heat and sources of ignition. Store separately from oxidizers. Have appropriate fire extinguishers available in and near the storage area.

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.

ACGIH/TLV :

Substance(s)

Isopropanol

TWA: 200 ppm , 492 mg/m³

STEL: 400 ppm , 983 mg/m³

OSHA/PEL :

Substance(s)

Isopropanol

TWA: 200 ppm , 492 mg/m³

STEL: 400 ppm , 983 mg/m³

ENGINEERING MEASURES :

Use general ventilation with local exhaust ventilation.

RESPIRATORY PROTECTION :

If significant mists, vapors or aerosols are generated an approved respirator is recommended. Wear an organic vapor/mist respirator when spraying. 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 :

FACE SHIELD, NEOPRENE, NITRILE, NATURAL RUBBER OR PVC GLOVES

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.



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HYGIENE RECOMMENDATIONS :

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.

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	Yellow Clear
ODOR	Mild
SPECIFIC GRAVITY	0.94 @ 68 °F / 20 °C
DENSITY	7.83 lb/gal
SOLUBILITY IN WATER	Complete
VISCOSITY	16 cst @ 100 °F /
BOILING POINT	205 °F /

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.

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.

HAZARDOUS DECOMPOSITION PRODUCTS :

Under fire conditions: Oxides of carbon

11. TOXICOLOGICAL INFORMATION

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



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ACUTE ORAL TOXICITY :

Species LD50
Rat 5,840 mg/kg
Rating : Non-Hazardous

Test Descriptor
Hazardous component Isopropanol

ACUTE DERMAL TOXICITY :

Species LD50
Rabbit 13,000 mg/kg
Rating : Non-Hazardous

Test Descriptor
Hazardous component Isopropanol

ACUTE INHALATION TOXICITY :

Species LC50
Rat 12000 ppm (8 hrs)
Rating : Non-Hazardous

Test Descriptor
Hazardous component Isopropanol

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.

ACUTE INVERTEBRATE RESULTS :

Species	Exposure	LC50	EC50	Test Descriptor
Mysid Shrimp (Mysidopsis bahia)	96 hrs	> 9,999 mg/l		Product

Rating : Essentially non-toxic

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION

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

Based on our recommended product application and the product's characteristics, the potential environmental exposure is: Low

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.



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Hazardous Waste: D001

Hazardous wastes must be transported by a licensed hazardous waste transporter and disposed of or treated in a properly licensed hazardous waste treatment, storage, disposal or recycling facility. Consult local, state, and federal regulations for specific requirements.

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 :	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Technical Name(s) :	ISOPROPANOL, ALKYL AMINES
UN/ID No :	UN 2924
Hazard Class - Primary :	3
Hazard Class - Secondary :	8
Packing Group :	III
Flash Point :	25 °C / 77 °F

AIR TRANSPORT (ICAO/IATA) :

Proper Shipping Name :	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Technical Name(s) :	ISOPROPANOL, ALKYL AMINES
UN/ID No :	UN 2924
Hazard Class - Primary :	3
Hazard Class - Secondary :	8
Packing Group :	III
IATA Cargo Packing Instructions :	310
IATA Cargo Aircraft Limit :	60 L (Max net quantity per package)

MARINE TRANSPORT (IMDG/IMO) :

Proper Shipping Name :	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Technical Name(s) :	ISOPROPANOL, ALKYL AMINES
UN/ID No :	UN 2924
Hazard Class - Primary :	3
Hazard Class - Secondary :	8
Packing Group :	III

15. REGULATORY INFORMATION

NATIONAL REGULATIONS, USA :



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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.

Isopropanol : Flammable, Eye irritant

Fatty amine salt : Corrosive

N-Coco Alkyl-1,3-Propylenediamine Acetate : Corrosive to eyes, Skin irritant

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) :

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA) :

EPA Reg. No. 68708-6

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 :

None of the substances are specifically listed in the regulation.

CLEAN AIR ACT, Sec. 111 (40 CFR 60, Volatile Organic Compounds), Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :

This product contains the following substances listed in the regulation:



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Substance(s)	Citations
• Isopropanol	Sec. 111

CALIFORNIA PROPOSITION 65 :

This product does not contain substances which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS :

None of the substances are specifically listed in the regulation.

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 :

B2 - Flammable Liquids, E - Corrosive Material

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.

16. OTHER INFORMATION

Due to our commitment to Product Stewardship, we have evaluated the human and environmental hazards and exposures of this product. Based on our recommended use of this product, we have characterized the product's general risk. This information should provide assistance for your own risk management practices. We have evaluated our product's risk as follows:

* The human risk is: Low

* The environmental risk is: Low

Any use inconsistent with our recommendations may affect the risk characterization. Our sales representative will assist you to determine if your product application is consistent with our recommendations. Together we can implement an appropriate risk management process.

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.



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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.

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 : 07/02/2004

Version Number : 1.7