

## SAFETY DATA SHEET

**NALCO® EC5624A PLUS**

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® EC5624A PLUS

Other means of identification : Not applicable.

Recommended use : CORROSION INHIBITOR

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 : 04/09/2020

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids : Category 2

Acute toxicity (Oral) : Category 3

Acute toxicity (Inhalation) : Category 3

Acute toxicity (Dermal) : Category 3

Skin corrosion : Category 1A

Serious eye damage : Category 1

Specific target organ toxicity - single exposure : Category 1 (Eyes)

Specific target organ toxicity - single exposure : Category 3 (Respiratory system, Central Nervous System)

#### GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Highly flammable liquid and vapour.  
Toxic if swallowed, in contact with skin or if inhaled  
Causes severe skin burns and eye damage.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Causes damage to organs (Eyes).

Precautionary Statements : **Prevention:**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not

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breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. 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. IF exposed: Call a POISON CENTER or doctor/ physician.

**Storage:**

Store in a well-ventilated place.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

| Chemical Name               | CAS-No.     | Concentration: (%) |
|-----------------------------|-------------|--------------------|
| Methanol                    | 67-56-1     | 30 - 60            |
| Alkylamine                  | Proprietary | 10 - 30            |
| Tetrapropenyl-Succinic Acid | 27859-58-1  | 5 - 10             |

### 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

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- Suitable 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.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Fire Hazard  
Keep away from heat and sources of ignition.  
Flash back possible over considerable distance.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- 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 : Use water spray to cool unopened containers. 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. Remove all sources of ignition. 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 : Eliminate all ignition sources if safe to do so. 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.

#### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Do not ingest. Keep away from fire, sparks and heated surfaces. 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.
- Conditions for safe storage : Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

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Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Shipping and long term storage compatibility with construction 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

| Components | CAS-No. | Form of exposure | Permissible concentration        | Basis     |
|------------|---------|------------------|----------------------------------|-----------|
| Methanol   | 67-56-1 | TWA              | 200 ppm                          | ACGIH     |
|            |         | STEL             | 250 ppm                          | ACGIH     |
|            |         | TWA              | 200 ppm<br>260 mg/m <sup>3</sup> | NIOSH REL |
|            |         | STEL             | 250 ppm<br>325 mg/m <sup>3</sup> | NIOSH REL |
|            |         | TWA              | 200 ppm<br>260 mg/m <sup>3</sup> | OSHA Z1   |

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 : Use local exhaust ventilation or other engineering controls as necessary to control airborne vapour and mist.  
When significant vapours are generated, an approved air purifying respirator is recommended to supplement other control measures for short term exposure. Use a particulate pre-filter where operations generate significant mists or aerosols.  
Recommended gas and vapour cartridge:  
Multi-purpose combination filter  
Methanol Warning! Protection provided by air purifying respirators is limited due to methanol's ability to break through filter media and its poor warning properties. For prolonged exposures, entry into unknown environments or where methanol is suspected to exceed exposure limits, use a positive pressure, full-facepiece SCBA or supplied-air respirator.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove

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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.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                         |                                                       |
|-----------------------------------------|-------------------------------------------------------|
| Appearance                              | : Liquid                                              |
| Colour                                  | : red                                                 |
| Odour                                   | : Alcoholic                                           |
| Flash point                             | : 10.0 °C, Method: ASTM D 93, closed cup              |
| pH                                      | : no data available                                   |
| Odour Threshold                         | : no data available                                   |
| Melting point/freezing point            | : POUR POINT: -59.4 °C, <                             |
| Initial boiling point and boiling range | : 63.8 °C                                             |
| Evaporation rate                        | : no data available                                   |
| Flammability (solid, gas)               | : Not applicable.                                     |
| Upper explosion limit                   | : no data available                                   |
| Lower explosion limit                   | : no data available                                   |
| Vapour pressure                         | : 172.2 mm Hg, (37.7 °C),                             |
| Relative vapour density                 | : no data available                                   |
| Relative density                        | : 0.89, (15.5 °C),                                    |
| Density                                 | : 7.4 lb/gal                                          |
| Water solubility                        | : no data available                                   |
| Solubility in other solvents            | : no data available                                   |
| Partition coefficient: n-octanol/water  | : no data available                                   |
| Auto-ignition temperature               | : no data available                                   |
| Thermal decomposition                   | : no data available                                   |
| Viscosity, dynamic                      | : no data available                                   |
| Viscosity, kinematic                    | : 5.1 mm <sup>2</sup> /s (4.4 °C), Method: ASTM D 445 |
| Molecular weight                        | : no data available                                   |
| VOC                                     | : 67.0 %, Calculation method                          |

#### Section: 10. STABILITY AND REACTIVITY

|            |                                                               |
|------------|---------------------------------------------------------------|
| Reactivity | : No dangerous reaction known under conditions of normal use. |
|------------|---------------------------------------------------------------|

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|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chemical stability                 | : Stable under normal conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Possibility of hazardous reactions | : No dangerous reaction known under conditions of normal use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Conditions to avoid                | : Heat, flames and sparks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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.<br>Acids<br>Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.<br>Avoid contact with SO <sub>2</sub> or acidic bisulfite products, which may react to form visible airborne amine salt particles.<br>Bases<br>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. |
| Hazardous decomposition products   | : In case of fire, hazardous decomposition products may be produced such as:<br>Carbon oxides<br>nitrogen oxides (NO <sub>x</sub> )<br>Sulphur oxides<br>Oxides of phosphorus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

|                  |                                                                                                                                                                                                                                                                                                                                   |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin             | : Toxic in contact with skin. Causes severe skin burns. May cause numbness, weakness, shooting pain in stomach and/or extremities, and blindness.                                                                                                                                                                                 |
| Ingestion        | : Toxic if swallowed. Causes digestive tract burns. May cause numbness, weakness, shooting pain in stomach and/or extremities, and blindness.                                                                                                                                                                                     |
| Inhalation       | : Toxic if inhaled. May cause nose, throat, and lung irritation. Inhalation may cause central nervous system effects. May cause numbness, weakness, shooting pain in stomach and/or extremities, and blindness. High vapor concentrations can cause headaches, dizziness, drowsiness, and nausea and may lead to unconsciousness. |
| Chronic Exposure | : May cause damage to organs. May cause genetic defects.                                                                                                                                                                                                                                                                          |

#### Experience with human exposure

|              |                            |
|--------------|----------------------------|
| Eye contact  | : Redness, Pain, Corrosion |
| Skin contact | : Redness, Pain, Corrosion |

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Ingestion : Corrosion, Abdominal pain  
Inhalation : Respiratory irritation, Cough, Dizziness, Drowsiness

#### Toxicity

##### Product

Acute oral toxicity : Acute toxicity estimate: 230.71 mg/kg  
Acute inhalation toxicity : Acute toxicity estimate: 6.98 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Acute dermal toxicity : Acute toxicity estimate: 697.67 mg/kg  
Skin corrosion/irritation : no data available  
Serious eye damage/eye irritation : no data available  
Respiratory or skin sensitization : no data available  
Carcinogenicity : no data available  
Reproductive effects : no data available  
Germ cell mutagenicity : no data available  
Teratogenicity : no data available  
STOT - single exposure : no data available  
STOT - repeated exposure : no data available  
Aspiration toxicity : no data available

### Section: 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Components

Toxicity to fish : Methanol  
LC50: 15,400 mg/l  
Exposure time: 96 h  
  
Tetrapropenyl-Succinic Acid  
LC50 Oncorhynchus mykiss (rainbow trout): > 100 mg/l  
Exposure time: 96 h

##### Components

Toxicity to daphnia and other aquatic invertebrates : Methanol  
EC50 : > 10,000 mg/l  
Exposure time: 48 h  
  
Tetrapropenyl-Succinic Acid  
EC50 Daphnia magna (Water flea): > 100 mg/l  
Exposure time: 48 h

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#### Components

Toxicity to algae : Methanol  
EC50 : 22,000 mg/l  
Exposure time: 72 h

Tetrapropenyl-Succinic Acid  
EC50 *Pseudokirchneriella subcapitata* (algae): 100 mg/l  
Exposure time: 96 h

#### Components

Toxicity to bacteria : Methanol  
> 1,000 mg/l

#### Components

Toxicity to fish (Chronic toxicity) : Methanol  
NOEC: 7,900 mg/l  
Exposure time: 8.3 d

#### Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

#### 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 : 30 - 50%  
Soil : 50 - 70%

The portion in water is expected to float on the surface.

#### Bioaccumulative potential

Component substances have a potential to bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The classification or waste code may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated at the time of disposal to determine the proper waste identification and disposal methods in compliance with applicable regulations.

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- Disposal methods : 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.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

##### Land transport (DOT)

- Proper shipping name : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
Technical name(s) : METHANOL, Alkylamine  
UN/ID No. : UN 3286  
Transport hazard class(es) : 3, 6.1, 8  
Packing group : II  
Reportable Quantity (per package) : 11,628 lbs  
RQ Component : METHANOL

##### Air transport (IATA)

- Proper shipping name : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
Technical name(s) : METHANOL, Alkylamine  
UN/ID No. : UN 3286  
Transport hazard class(es) : 3, 6.1, 8  
Packing group : II  
Reportable Quantity (per package) : 11,628 lbs  
RQ Component : METHANOL

##### Sea transport (IMDG/IMO)

- Proper shipping name : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.  
Technical name(s) : METHANOL, Alkylamine  
UN/ID No. : UN 3286  
Transport hazard class(es) : 3, 6.1, 8  
Packing group : II

#### Section: 15. REGULATORY INFORMATION

- TSCA list : No substances are subject to a Significant New Use Rule.
- No substances are subject to TSCA 12(b) export notification requirements.

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#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|------------|---------|--------------------|-----------------------------|
| Methanol   | 67-56-1 | 5000               | 11627                       |

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Flammable (gases, aerosols, liquids, or solids)  
Acute toxicity (any route of exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Specific target organ toxicity (single or repeated exposure)

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

|          |         |           |
|----------|---------|-----------|
| Methanol | 67-56-1 | 30 - 50 % |
|----------|---------|-----------|

#### California Prop. 65

 **WARNING:** Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

|          |         |
|----------|---------|
| Methanol | 67-56-1 |
|----------|---------|

#### INTERNATIONAL CHEMICAL CONTROL LAWS :

##### United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

##### Canadian Domestic Substances List (DSL)

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

##### Australia. Industrial Chemical (Notification and Assessment) Act

On the inventory, or in compliance with the inventory

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

##### Japan. ENCS - Existing and New Chemical Substances Inventory

On the inventory, or in compliance with the inventory

##### Korea. Korean Existing Chemicals Inventory (KECI)

On the inventory, or in compliance with the inventory

##### China Inventory of Existing Chemical Substances

On the inventory, or in compliance with the inventory

##### Taiwan Chemical Substance Inventory

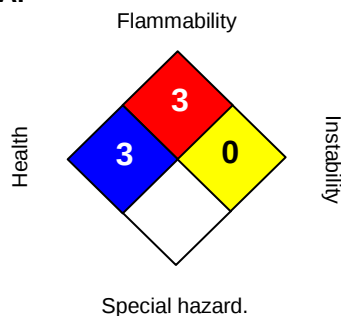
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not determined

### Section: 16. OTHER INFORMATION

#### NFPA:



#### HMIS III:

|                 |   |
|-----------------|---|
| HEALTH          | 3 |
| FLAMMABILITY    | 3 |
| PHYSICAL HAZARD | 0 |

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

Revision Date : 04/09/2020  
Version Number : 1.1  
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 SDS visit [www.nalco.com](http://www.nalco.com) and request access.