SAFETY DATA SHEET

EC1317A CORROSION INHIBITOR

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : EC1317A CORROSION INHIBITOR
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 Champion Company
7705 Highway 90-A
Sugar Land, Texas 77478
USA
TEL: (281) 263-7000
Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC
Issuing date : 03/06/2015

Section: 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids : Category 3
Acute toxicity (Oral) : Category 3
Acute toxicity (Inhalation) : Category 3
Acute toxicity (Dermal) : Category 3
Skin corrosion : Category 1B
Serious eye damage : Category 1
Skin sensitization : Category 1
Specific target organ toxicity - single exposure : Category 1 (Eyes)
Specific target organ toxicity - single exposure : Category 2
Specific target organ toxicity - single exposure : Category 3 (Central Nervous System)

GHS Label element
Hazard pictograms : 

Signal Word : Danger
Hazard Statements : Flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
Causes damage to organs (Eyes).
May cause damage to organs.
Precautionary Statements:

**Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed: Call a POISON CENTER or doctor/physician. Immediately call a POISON CENTER or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**

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

**Other hazards:**
None known.

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration: (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Tall Oil, DETA Imidazoline Acetates</td>
<td>68140-11-4</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Benzyl-Dimethyl-Dodecyl-Ammonium Chloride</td>
<td>139-07-1</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Thioglycolic Acid</td>
<td>68-11-1</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Benzyl-Dimethyl-Tetradecyl-Ammonium Chloride</td>
<td>139-08-2</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

### 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.
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

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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.
- Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition.

Hazardous combustion products: Decomposition products may include the following materials:
- Carbon oxides
- Nitrogen oxides (NOx)
- Sulphur oxides

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. Flush away traces with water.

**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 labeled containers. Connections must be grounded to avoid electrical charges. Avoid direct sunlight. At temperatures greater than 30°C a component of this product may degrade leading to the production of hydrogen sulfide (H2S).

**Suitable material**: The following compatibility data is suggested based on similar product data and/or industry experience: Stainless Steel 304, Stainless Steel 316L, Nitrile, EPDM, Perfluorooelastomer, PTFE, TFE, FEP (encapsulated), Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

**Unsuitable material**: The following compatibility data is suggested based on similar product data and/or industry experience: Neoprene, Carbon Steel C1018, Fluoroelastomer

**Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>TWA</td>
<td>200 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>250 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 200 ppm</td>
<td>325 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>325 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 200 ppm</td>
<td>260 mg/m3</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Thioglycolic Acid</td>
<td>68-11-1</td>
<td>TWA</td>
<td>1 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1 ppm</td>
<td>NIOSH REL</td>
</tr>
</tbody>
</table>

**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: When workers are facing concentrations above the exposure limit
they must use appropriate certified respirators.

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

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid
Colour: clear
Odour: Alcoholic, Pungent
Flash point: 30 °C
Method: ASTM D 93, Pensky-Martens closed cup

pH: 3.4, 100 %

Odour Threshold: no data available
Melting point/freezing point: POUR POINT: -46 °C
Initial boiling point and boiling range: no data available
Evaporation rate: no data available
Flammability (solid, gas): no data available
Upper explosion limit: no data available
Lower explosion limit: no data available
Vapour pressure: 12.7 kPa (38 °C)
Relative vapour density: no data available
Relative density: 0.95 (15.6 °C)
Density: 0.95 g/cm3
7.9 lb/gal
Water solubility: completely soluble
Solubility in other solvents: no data available
Partition coefficient: n-octanol/water: no data available
Auto-ignition temperature: no data available
**SAFETY DATA SHEET**

**EC1317A CORROSION INHIBITOR**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>2 mm²/s (38 °C) Method: ASTM D 445</td>
</tr>
<tr>
<td>VOC</td>
<td>no data available</td>
</tr>
</tbody>
</table>

**Section: 10. STABILITY AND REACTIVITY**

- **Chemical stability**: At temperatures greater than 30°C a component of this product may degrade leading to the production of hydrogen sulfide (H2S).
- **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.
- **Hazardous decomposition products**: Decomposition products may include the following materials: Carbon oxides, nitrogen oxides (NOx), sulphur oxides. May evolve toxic fumes. Hydrogen sulfide (H2S).

**Section: 11. TOXICOLOGICAL INFORMATION**

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

**Potential Health Effects**

- **Eyes**: Causes serious eye damage.
- **Skin**: Toxic in contact with skin. Causes severe skin burns. May cause allergic skin reaction.
- **Ingestion**: May cause blindness if swallowed. Toxic if swallowed. Causes digestive tract burns.
- **Inhalation**: Toxic if inhaled. May cause nose, throat, and lung irritation. Inhalation may cause central nervous system effects.
- **Chronic Exposure**: May cause damage to organs.

**Experience with human exposure**

- **Eye contact**: Redness, Pain, Corrosion
- **Skin contact**: Redness, Pain, Irritation, Corrosion, Allergic reactions
- **Ingestion**: Corrosion, Abdominal pain
- **Inhalation**: Respiratory irritation, Cough, Dizziness, Drowsiness
Toxicity

Product
Acute oral toxicity : Acute toxicity estimate : 262.63 mg/kg
Acute inhalation toxicity : Acute toxicity estimate : 3.08 mg/l
Exposure time: 4 h
Acute dermal toxicity : Acute toxicity estimate : 800.53 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
Environmental Effects : Very toxic to aquatic life.
                      : Toxic to aquatic life with long lasting effects.

Product
Toxicity to fish : LC50 Fish: 0.85 mg/l
                  : Exposure time: 96 hrs
                  : Test substance: Hazardous component
Toxicity to daphnia and other aquatic invertebrates : EC50 Daphnia magna (Water flea): 0.02 mg/l
                                                      : Exposure time: 48 hrs
                                                      : Test substance: Hazardous component
Toxicity to algae : LC50 Algae: < 1 mg/l
                   : Exposure time: 72 hrs
                   : Test substance: Hazardous component

Components
Toxicity to bacteria : Methanol
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 readily 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: 70 - 90%

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

Bioaccumulative potential
The product will not 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 to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Hazardous Waste: D001

Disposal methods: The product should not be allowed to enter drains, water courses or the soil. 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.

**Land transport (DOT)**

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

- **Proper shipping name**: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
- **Technical name(s)**: METHANOL, QUATERNARY AMMONIUM COMPOUND
- **UN/ID No.**: UN 2924
- **Transport hazard class(es)**: 3, 8
- **Packing group**: III
- **Reportable Quantity (per package)**: 14,280 lbs
- **RQ Component**: METHANOL

**Air transport (IATA)**

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

- **Proper shipping name**: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
- **Technical name(s)**: METHANOL, QUATERNARY AMMONIUM COMPOUND
- **UN/ID No.**: UN 2924
- **Transport hazard class(es)**: 3, 8
- **Packing group**: III
- **Reportable Quantity (per package)**: 14,280 lbs
- **RQ Component**: METHANOL

**Sea transport (IMDG/IMO)**

- **Proper shipping name**: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
- **Technical name(s)**: METHANOL, QUATERNARY AMMONIUM COMPOUND
- **UN/ID No.**: UN 2924
- **Transport hazard class(es)**: 3, 8
- **Packing group**: III

Section: 15. REGULATORY INFORMATION

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

**CERCLA Reportable Quantity**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>5000</td>
<td>14286</td>
</tr>
</tbody>
</table>

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

**SARA 311/312 Hazards**: Fire Hazard
SAFETY DATA SHEET
EC1317A CORROSION INHIBITOR

Acute Health Hazard

SARA 302  : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Reporting Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>30 - 60 %</td>
</tr>
</tbody>
</table>

California Prop 65
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
</tr>
</tbody>
</table>

INTERNATIONAL CHEMICAL CONTROL LAWS:

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

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)
The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

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

CHINA
All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

EUROPE
The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

JAPAN
All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

KOREA
All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

PHILIPPINES
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).

Section: 16. OTHER INFORMATION
SAFETY DATA SHEET

EC1317A CORROSION INHIBITOR

NFPA:

HMIS III:

![NFPA and HMIS III symbols]

Special hazard.

Revision Date : 03/06/2015
Version Number : 1.0
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 MSDS visit www.nalco.com and request access.