



## SAFETY DATA SHEET

PRODUCT

**EC1447W CORROSION**

Wearner Field - II

EMERGENCY TELEPHONE NUMBER(S)

(800) 424-9300 (24 Hours) CHEMTREC

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME : EC1447W CORROSION

APPLICATION : CORROSION INHIBITOR

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

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NFPA 704M/HMIS RATING

HEALTH : 3/3\* FLAMMABILITY : 3/3 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)
Methanol	67-56-1	10.0 - 30.0
Imidazoline Salts	Proprietary	5.0 - 10.0
Organic sulfur compound	Proprietary	1.0 - 5.0
Quaternary ammonium compound	Proprietary	1.0 - 5.0

**3. HAZARDS IDENTIFICATION****\*\*EMERGENCY OVERVIEW\*\*****DANGER**

Flammable. Toxic by inhalation, in contact with skin and if swallowed. Risk of serious damage to eyes. Irritating to skin. May cause sensitization by skin contact. Contains methanol. Methanol may cause central nervous system effects or permanent vision damage if inhaled, swallowed or absorbed through the skin in large amounts.

Keep away from heat. Keep away from sources of ignition - No smoking. Keep container tightly closed. Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Avoid breathing vapor. 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. Use a mild soap if available.

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

Flammable Liquid; may release vapors that form flammable mixtures at or above the flash point. Vapors can travel to a source of ignition and flash back. 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) and sulfur (SOx) under fire conditions.



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#### PRIMARY ROUTES OF EXPOSURE :

Eye, Skin, Inhalation

#### HUMAN HEALTH HAZARDS - ACUTE :

##### EYE CONTACT :

Severely irritating. If not removed promptly, will injure eye tissue and may result in permanent eye damage.

##### SKIN CONTACT :

Can cause moderate irritation. Repeated or prolonged contact may cause skin sensitization. Toxic in contact with skin. Methanol may be absorbed through the skin and cause central nervous system effects which may result in permanent visual changes including blindness.

##### INGESTION :

Not a likely route of exposure. There may be irritation to the gastro-intestinal tract with nausea and vomiting. Toxic if swallowed. The main hazard of methyl alcohol arises from its misuse as a drinking substitute for ethyl alcohol. As little as 15 ml of 40% methyl alcohol may cause death. Sublethal doses may cause central nervous system effects and may result in permanent visual changes including blindness.

##### INHALATION :

Repeated or prolonged exposure may irritate the respiratory tract. Toxic by inhalation.

#### SYMPTOMS OF EXPOSURE :

##### Acute :

Inhalation of high concentrations of organic solvents can cause nausea, dizziness, vomiting, stupor or unconsciousness.

##### Chronic :

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

## 4. FIRST AID MEASURES

##### EYE CONTACT :

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

##### SKIN CONTACT :

Immediately flush with plenty of water for at least 15 minutes. Use a mild soap if available. For a large splash, flood body under a shower. Get medical attention. Contaminated clothing, shoes, and leather goods must be discarded or cleaned before re-use.

##### INGESTION :

Get immediate medical attention. Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink.

##### INHALATION :

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

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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 :** 98 °F / 36.7 °C**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 :**

Flammable Liquid; may release vapors that form flammable mixtures at or above the flash point. Vapors can travel to a source of ignition and flash back. 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) and sulfur (SOx) 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). 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. Remove sources of ignition. 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. Clean contaminated surfaces with water or aqueous cleaning agents. 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 :**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment., Prevent material from entering sewers or waterways., If drains, streams, soil or sewers become contaminated, notify local authority.

**7. HANDLING AND STORAGE****HANDLING :**

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks,



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etc.) readily available. Ensure all containers are labeled. Do not use, store, spill or pour near heat, sparks or open flame.

#### STORAGE CONDITIONS :

Store in suitable labeled containers. Store the containers tightly closed. Store away from heat and sources of ignition. Have appropriate fire extinguishers available in and near the storage area. Connections must be grounded to avoid electrical charges.

#### SUITABLE CONSTRUCTION MATERIAL :

Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

## 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)	Category:	ppm	mg/m3	Non-Standard Unit
Methanol	ACGIH/TWA	200		
	ACGIH/STEL	250		
	ACGIH/Skin*			
	OSHA Z1/PEL	200	260	
Organic sulfur compound	AIHA/WEEL/TWA	0.2	0.6	

\* Can be absorbed through the skin.

#### ENGINEERING MEASURES :

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

#### RESPIRATORY PROTECTION :

Where concentrations in air may exceed the limits given in this section, the use of air supplied breathing apparatus is recommended. 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.

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Keep an eye wash fountain available. Keep a safety shower 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                Clear Amber

ODOR                        Pungent

SPECIFIC GRAVITY                0.952 - 0.992 @ 60 °F / 15.6 °C

DENSITY                        8.08 lb/gal

SOLUBILITY IN WATER                Complete

pH (100 %)                        5.5

INITIAL BOILING POINT                175 °F / 79.4 °C

VAPOR PRESSURE                51.7 mm Hg @ 100 °F / 37.8 °C

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, Oxides of sulfur, Oxides of nitrogen

**11. TOXICOLOGICAL INFORMATION**

No toxicity studies have been conducted on this 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).

#### HUMAN HAZARD CHARACTERIZATION :

Based on our hazard characterization, the potential human hazard is: High

## 12. ECOLOGICAL INFORMATION

#### ECOTOXICOLOGICAL EFFECTS :

No toxicity studies have been conducted on this product.

#### 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	Water	Soil/Sediment
<5%	30 - 50%	50 - 70%

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

#### ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION

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

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

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. Dispose of in accordance with local, state, and federal regulations.



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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.

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.

## LAND TRANSPORT :

Proper Shipping Name : FLAMMABLE LIQUID, N.O.S.  
Technical Name(s) : METHANOL  
UN/ID No : UN 1993  
Hazard Class - Primary : 3  
Packing Group : III

Flash Point : 36.7 °C / 98 °F

DOT Reportable Quantity (per package) : 25,000 lbs  
DOT RQ Component : METHANOL

## AIR TRANSPORT (ICAO/IATA) :

Proper Shipping Name : FLAMMABLE LIQUID, N.O.S.  
Technical Name(s) : METHANOL  
UN/ID No : UN 1993  
Hazard Class - Primary : 3  
Packing Group : III  
IATA Cargo Packing Instructions : 310  
IATA Cargo Aircraft Limit : 220 L (Max net quantity per package)

## MARINE TRANSPORT (IMDG/IMO) :

Proper Shipping Name : FLAMMABLE LIQUID, N.O.S.  
Technical Name(s) : METHANOL  
UN/ID No : UN 1993  
Hazard Class - Primary : 3  
Packing Group : III

\*Marine Pollutant : QUATERNARY AMMONIUM COMPOUND

\*Note: This product is regulated as a Marine Pollutant when shipped by Rail, Highway, or Air in bulk quantities (greater than 119 gallons) and when shipped by water in all quantities.



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## 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.

Methanol : Flammable, Target Organ Effect - Eye

Imidazoline Salts : Irritant

Organic sulfur compound : Target Organ Effect - Liver, Target Organ Effect - Kidney, Dermal Sensitizer

Quaternary ammonium compound : Corrosive

#### CERCLA/SUPERFUND, 40 CFR 302 :

This product contains the following Reportable Quantity (RQ) Substance. Also listed is the RQ for the product. If a reportable quantity of product is released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D.C. (1-800-424-8802).

<u>RQ Substance</u>	<u>RQ</u>
Methanol	25,000 lbs

### 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
X	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 contains the following substance(s), (with CAS # and % range) which appear(s) on the List of Toxic Chemicals





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Hazardous Substance(s)

Methanol

CAS NO

67-56-1

% (w/w)

10.0 - 30.0

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

This product may contain trace levels (&lt;0.1% for carcinogens, &lt;1% all other substances) of the following substance(s) listed under the regulation. Additional components may be unintentionally present at trace levels.

Substance(s)	Citations
• Benzyl Chloride	Sec. 311

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) :

This product contains the following substances listed in the regulation. Additional components may be unintentionally present at trace levels.

Substance(s)	Citations
• Methanol • Benzyl Chloride	Sec. 112

## CALIFORNIA PROPOSITION 65 :

This material contains trace amounts of chemicals known to the State of California to cause cancer.

Substance(s)	Concentration	EFFECTS
• Benzyl Chloride	< .01 %	Causes Cancer

## 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 :

The following substances are disclosed for compliance with State Right to Know Laws:

Methanol

67-56-1

Organic sulfur compound

Proprietary

## INTERNATIONAL CHEMICAL CONTROL LAWS :

Nalco Company 1601 W. Diehl Road • Naperville, Illinois 60563-1198 • (630)305-1000

For additional copies of an MSDS visit [www.nalco.com](http://www.nalco.com) and request access

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### 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.

### 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).

## 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.

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.



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

Prepared By : Product Safety Department

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