



JUN 06 2002

# MATERIAL SAFETY DATA SHEET

PRODUCT  
**SOLUTION S0234 TDS-1**

Emergency Telephone Number  
Medical (800) 462-5378 (24 hours) (800) I-M-ALERT

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**SECTION 01 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**  
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TRADE NAME: SOLUTION S0234 TDS-1  
DESCRIPTION: TDS-1, dilute citric acid and phenolphthalein in water and denatured ethanol  
NFPA 704M/HMIS RATING: 1/1 HEALTH 3/3 FLAMMABILITY 0/0 REACTIVITY 0 OTHER  
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

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**SECTION 02 COMPOSITION AND INFORMATION ON INGREDIENTS**  
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Our hazard evaluation has identified the following chemical ingredient(s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 15 for the nature of the hazard(s).

INGREDIENT(S)	CAS #	APPROX. %
Ethanol-denatured	64-17-5	20-40
Methanol	67-56-1	1-5

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**SECTION 03 HAZARD IDENTIFICATION**  
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EMERGENCY OVERVIEW:  
WARNING: FLAMMABLE. Keep away from heat, sparks and flame. May cause skin and eye irritation. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Do not take internally. Keep container closed when not in use. In case of contact, flush with plenty of water; for eyes, get medical attention.

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin, Inhalation

EYE CONTACT: May cause irritation with prolonged contact.  
SKIN CONTACT: May cause irritation with prolonged contact.  
INGESTION: Can cause blindness. Can cause central nervous system depression, nausea, dizziness, vomiting or unconsciousness depending on the length of exposure and on the first aid action given. Can be harmful.  
INHALATION: Prolonged inhalation of mist or vapor may cause nausea, dizziness, light-headedness, vomiting or unconsciousness depending on the length of exposure and the first aid action given.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not



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identify any worsening of existing conditions.

## SECTION 04 FIRST AID INFORMATION

**EYES:** Immediately flush for at least 15 minutes while holding eyelids open. Call a physician at once.

**SKIN:** Immediately flush with water for at least 15 minutes. For a large splash, flood body under a shower. Call a physician at once.

**INGESTION:** Induce vomiting. Give water. Call a physician at once.

**INHALATION:** Remove to fresh air. Treat symptoms. Call a physician at once.

**NOTE TO PHYSICIAN:** Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

**CAUTION:** If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

## SECTION 05 FIRE FIGHTING MEASURES

**FLASH POINT:** 76 Degrees F (TCC) ASTM D-56

**EXTINGUISHING MEDIA:** Based on the NFPA guide, use dry chemical, foam, carbon dioxide or other extinguishing agent suitable for Class B fires. Use water to cool containers exposed to fire. For large fires, use water spray or fog, thoroughly drenching the burning material.

**UNUSUAL FIRE AND EXPLOSION HAZARD:** Treat like an alcohol fire, flammable liquid.

## SECTION 06 ACCIDENTAL RELEASE MEASURES

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (800) I-M-ALERT or (800) 462-5378.

**SPILL CONTROL AND RECOVERY:**

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Combine with ignitable plant wastes.

Keep the spill away from heat, sparks, flames and welding operations.

## SECTION 07 HANDLING AND STORAGE

**Storage :** Keep container closed when not in use.



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## SECTION 08 EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION: Respiratory protection is not normally needed.

VENTILATION: General ventilation is recommended. Additionally, local exhaust ventilation is recommended where vapors, mists or aerosols may be released.

PROTECTIVE EQUIPMENT: Wear gloves and safety glasses.

The availability of an eye wash fountain and safety shower is recommended.

HUMAN EXPOSURE CHARACTERIZATION: Based on Nalco's recommended product application and our recommended personal protective equipment, the potential human exposure is: HIGH.

## SECTION 09 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Colorless	FORM: Liquid	ODOR: Alcohol
SOLUBILITY IN WATER:	Soluble	
pH (NEAT) =	Slightly acidic	
FLASH POINT:	76 Degrees F (TCC)	ASTM D-56

NOTE: These physical properties are typical values for this product.

## SECTION 10 STABILITY AND REACTIVITY

INCOMPATIBILITY: Avoid contact with strong oxidizers (eg. chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions and the release of toxic fumes.

STORAGE: Do not store near ignition sources.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO<sub>2</sub> may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

## SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY STUDIES: Acute toxicity studies have not been conducted on this product, but toxicity studies of the ingredient(s) in Section 2 have been reviewed. The results are shown below.

ACUTE ORAL TOXICITY (ALBINO RATS):  
Ethanol LD50 = 7,060 mg/kg

HUMAN HAZARD CHARACTERIZATION: Based on our hazard characterization, the potential human hazard is: HIGH.



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## SECTION 12 ECOLOGICAL INFORMATION

If released into the environment, see CERCLA in Section 15.

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION: Based on our Hazard Characterization, the potential environmental hazard is: LOW.  
Based on Nalco's recommended product application and the product's characteristics, the potential environmental exposure is: LOW.

## SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL: If this product becomes a waste, it meets the criteria of a hazardous waste as defined under the Resources Conservation and Recovery Act (RCRA) 40 CFR 261. Hazardous Waste D001.

Combine with other plant ignitable wastes for disposal. Can be incinerated in accordance with local, state and federal regulations.

Empty product containers should be punctured, if plastic, and placed in the garbage collection containers.

## SECTION 14 TRANSPORTATION INFORMATION

PROPER SHIPPING NAME/HAZARD CLASS MAY VARY BY PACKAGING, PROPERTIES, AND MODE OF TRANSPORTATION. TYPICAL PROPER SHIPPING NAMES FOR THIS PRODUCT ARE:

ALL TRANSPORTATION MODES : FLAMMABLE LIQUID, N.O.S.

UN/ID NO : UN 1993

HAZARD CLASS - PRIMARY : 3 - FLAMMABLE LIQUID

PACKING GROUP : III

IMDG PAGE NO : 3345

IATA PACKING INSTRUCTION : CARGO: 310

IATA CARGO AIRCRAFT LIMIT : 220 L (MAX NET QUANTITY PER PACKAGE)

FLASH POINT : 76 F 24.4 C

TECHNICAL NAME(S) : ETHANOL

RQ LBS (PER PACKAGE) : NONE

RQ COMPONENT(S) : NONE

## SECTION 15 REGULATORY INFORMATION

The following regulations apply to this product.



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## FEDERAL REGULATIONS:

OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following ingredient in this product is hazardous and the reason is shown below.

Ethanol - Flammable

Methanol - Flammable, inhalation hazard, toxic by ingestion

Ethanol = TWA 1,000 ppm, 1,900 mg/m3 ACGIH/TLV

Methanol = TWA 200 ppm, STEL 250 ppm ACGIH/TLV  
262 mg/m3, 328 mg/m3 ACGIH/TLV

Ethanol = TWA 1,000 ppm, 1,900 mg/m3 OSHA/PEL

Methanol = TWA 200 ppm, STEL 250 ppm OSHA/PEL  
260 mg/m3, 325 mg/m3 OSHA/PEL

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 ingredients 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 EPA hazard categories:

- XX Immediate (acute) health hazard
- Delayed (chronic) health hazard
- XX 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 ingredient(s), (with CAS # and % range) which appear(s) on the List of Toxic Chemicals.

Methanol            67-56-1            1-5



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TOXIC SUBSTANCES CONTROL ACT (TSCA):  
The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:  
Consult Section 13 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (formerly Sec. 307), 40 CFR 116 (formerly Sec. 311):  
None of the ingredients are specifically listed.

CLEAN AIR ACT, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments), Sec. 611 (40 CFR 82, CLASS I and II Ozone depleting substances):  
This product contains the following ingredients covered by the Clean Air Act:

Ethyl alcohol - Section 111  
Methanol - Section 111

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:  
This product contains phenolphthalein, known to the State of California to cause cancer.

MICHIGAN CRITICAL MATERIALS:  
This product does not contain ingredients listed on the Michigan Critical Materials Register.

STATE RIGHT TO KNOW LAWS:  
Regulated in those states using the TLV for ethanol as a criteria for listing.

INTERNATIONAL REGULATIONS:

This is a WHMIS controlled product under The House of Commons of Canada Bill C-70 (Class B2 and Class D2B). The product contains the following substance(s), from the Ingredient Disclosure List or has been evaluated based on its toxicological properties, to contain the following hazardous ingredients(s):

Chemical Name	CAS #	% Concentration Range
Ethanol-denatured	64-17-5	20-40
Methanol	67-56-1	1-5

SECTION 16 OTHER INFORMATION

None



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## SECTION 17 RISK CHARACTERIZATION

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: HIGH.
- \* The environmental risk is: LOW.

Any use inconsistent with Nalco's recommendations may affect our 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 use, 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.

## SECTION 18 REFERENCES

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (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. (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



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Hazardous Substances, Occupational Safety and Health Administration (OSHA).

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, Ohio (CD-ROM version),  
Micromedex, Inc., Englewood, CO.

Shepard's Catalog of Teratogenic Agents (CD-ROM version),  
Micromedex, Inc., Englewood, CO.

Suspect Chemicals Sourcebook (a guide to industrial chemicals covered under major regulatory and advisory programs), Roytech Publications (a Division of Ariel Corporation), Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, Washington (CD-ROM version), Micromedex, Inc., Englewood, CO.

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