



MATERIAL SAFETY DATA SHEET

PRODUCT

SOLUTION S0447 LH-3 TITRANT LO

Emergency Telephone Number

Medical (800) 462-5378 (24 hours)

(800) I-M-ALERT

SECTION 01 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: SOLUTION S0447 LH-3 TITRANT LO

DESCRIPTION: LH-3, aqueous solution of low level hardness titrant

NFPA 704M/HMIS RATING: 0/0 HEALTH 0/0 FLAMMABILITY 0/0 REACTIVITY 0 OTHER
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

SECTION 02 COMPOSITION AND INFORMATION ON INGREDIENTS

Our hazard evaluation of the ingredient(s) under OSHA's Hazard Communication Rule, 29 CFR 1910.1200 has found none of the ingredient(s) hazardous.

SECTION 03 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

Do not take internally.

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin

EYE CONTACT: Non-irritating.

SKIN CONTACT: Non-irritating.

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

SECTION 04 FIRST AID INFORMATION

Flush contacted area with water.

SECTION 05 FIRE FIGHTING MEASURES

FLASH POINT: None

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARD: None

SECTION 06 ACCIDENTAL RELEASE MEASURES



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

SPILL CONTROL AND RECOVERY:

Flush to laboratory drain or sewer with water.

SECTION 07 HANDLING AND STORAGE

Storage : Keep container closed when not in use.

SECTION 08 EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION: Respiratory protection is not needed.

VENTILATION: General ventilation is recommended.

PROTECTIVE EQUIPMENT: Safety glasses should be worn when handling any liquid product.

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

SECTION 09 PHYSICAL AND CHEMICAL PROPERTIES

COLOR:	Colorless	FORM:	Liquid
ODOR:	Odorless		
SOLUBILITY IN WATER:	Completely		
FLASH POINT:	None		

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

SECTION 10 STABILITY AND REACTIVITY

INCOMPATIBILITY: None known

THERMAL DECOMPOSITION PRODUCTS: Not applicable



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SECTION 11 TOXICOLOGICAL INFORMATION

TOXICITY STUDIES: No toxicity studies have been conducted on this product.

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

SECTION 12 ECOLOGICAL INFORMATION

None

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 does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Flush to laboratory drain or sanitary sewer with water.

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 : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

SECTION 15 REGULATORY INFORMATION



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The following regulations apply to this product.

FEDERAL REGULATIONS:

OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, none of the ingredients in this product are hazardous.

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 that this product is not hazardous under 29 CFR 1910.1200.

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 ingredients on the List of Toxic Chemicals.

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.



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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 does not contain ingredients covered by the Clean Air Act.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:

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

MICHIGAN CRITICAL MATERIALS:

This product does not contain ingredients listed on the Michigan Critical
Materials Register.

STATE RIGHT TO KNOW LAWS:

This product does not contain ingredients listed by State Right To Know Laws.

SECTION 16 OTHER INFORMATION

None

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: LOW.
- * 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.



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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.

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 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



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(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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