TEMPORARY MSDS

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Clariant Corporation AZ Electronic Materials 2.O. Box 3700 0 Meister Avenue omerville, NJ 08876-1258

Material Safety Data Sheet

THE EMERGENCY PHONE NUMBERS ARE: CHEMTREC CLARIANT CORPORATION (800) 835-5235 MATION CALL: (800) 235-2637 FOR (NON EMERGENCY) PRODUCT INFORMATION CALL:

(800) 424-9300

-----PRODUCT IDENTIFICATION-

VERSION DATE: 09/11/97 DATE PRINTED: 09/11/97 MSDS NUMBER: 5000703E

PRODUCT NAME: AZ 915 MIF DEVELOPER SYNONYMS: PHOTORESIST DEVELOPER CHEMICAL FAMILY: BASIC AQUEOUS SOLUTION

INGREDIENT: TETRAMETHYLAMMONIUM HYDROXIDE, TMAH CAS# 75-59-2

PERCENT: HAZARD DATA:

ALKALINE SOLUTION MAY BE HAZARDOUS BY CONTACT OR INHALATION OF MIST. SEE EFFECTS OF OVEREXPOSURE

OTHER: WATER(7732-18-5)

NJ AND PA RIGHT-TO-KNOW LISTINGS.
"OTHER" LISTINGS NOT ON ANY STATE
R-T-K LIST OR DEFINED AS HAZARDOUS

-----PHYSICAL DATA------

PHYSICAL DATA	LOW	HIGH	UNITS	COMMENT
BOILING POINT SOLUBILITY IN WATER		100	°C	SOLUBLE
PH		13.3		
% VOLATILE SPECIFIC GRAVITY (WATER =:	11	1.00		
EVAPORATION RATE		1.00		ABOUT SA

------------------------FIRE AND EXPLOSION HAZARDS-------

ABOUT SAME AS WATER

APPEARANCE AND ODOR: COLORLESS LIQUID, SLIGHT AMINE ODOR.

EXTINGUISHING MEDIA: NON-FLAMMABLE - COMPATIBLE WITH EXTINGUISHING AGENTS.

UNUSUAL HAZARDS: SEE HAZARDOUS DECOMPOSITION PRODUCTS.

-----HEALTH INFORMATION-------

PRIMARY ROUTE OF EXPOSURE: INHALATION: YES SKIN ABSORPTION: NO INGESTION: NO ALSO SKIN AND EYE CONTACT WITH LIQUID AND AEROSOLS.

EFFECTS OF OVEREXPOSURE:
ALKALINE SOLUTION. MAY CAUSE SEVERE IRRITATION OR CAUSTIC BURNS TO EYES AND MUCOUS MEMBRANES. SOLUTIONS OF PH GREATER THAN 10 ARE KNOWN TO CAUSE CORNEAL DAMAGE. D.O.T. FOUR HOUR RABBIT SKIN TEST OF THE HIGHEST COMMERCIAL CONCENTRATION OF THIS PRODUCT WAS NEGATIVE FOR CORROSION.

TOXICITY TEXT: ACUTE LC50(96H) FOR CERIODAPHNIA DUBIA(WATER FLEA): 210 PPB TMAH. ACUTE LC50(48H) FOR DAPHNIA MAGNA(WATER FLEA): 1.2 PPM AS TETRAMETHYLAMMONIUM CHLORIDE (TMCL). ACUTE LC50(96H) FOR FATHEAD MINNOW: 462 PPM AS TMCL. ACUTE TL50(96H) FOR RAINBOW TROUT: 35.1 PPM AS TMCL.

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PRODUCT NAME: MSDS NUMBER: 5000703E AZ 915 MIF DEVELOPER
(CONTINUED
CHRONIC LOEC(REPRODUCTION AND GROWTH) FOR DAPHNIA MAGNA: 50PPB AS TMCL CHRONIC NOEC(REPRODUCTION AND GROWTH) FOR DAPHNIA MAGNA: 30PPB AS TMCL
MEDICAL CONDITIONS AGGRAVATED: PREEXISTING SKIN, EYE AND RESPIRATORY CONDITIONS MAY BE AGGRAVATED.
CARCINOGEN: IARC: NO NTP: NO OSHA: NO
CCUPATIONAL EXPOSURE LIMITS
TEXT: NONE FOUND.
EMERGENCY AND FIRST AID PROCEDURE
INHALATION: CONSULT PHYSICIAN IF IRRITATION OF RESPIRATORY PASSAGES OCCURS.
EYE CONTACT: FLUSH THOROUGHLY WITH WATER FOR 15 MINUTES.GET IMMEDIATE MEDICAL HELP.
SKIN CONTACT: INMEDIATELY REMOVE CONTAMINATED CLOTHING AND WASH AFFECTED AREA CONSULT PHYSICIAN IF IRRITATION OR OTHER SYMPTOMS OCCUR.
INGESTION: IF PERSON IS CONSCIOUS, GIVE WATER OR MILK TO DILUTE STOMACH CONTENTS. DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL HELP.
ADDITIONAL MEASURES: NONE FOUND.
REACTIVITY DATA
CHEMICAL STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: AVOID CONTACT WITH STRONG ACIDS. THIS PRODUCT IS EXPECTED, BY TEST OR ANALOGY, TO SLOWLY ATTACK ALUMINUM AND PERHAPS OTHER NONFERROUS METALS, RELEASING HYDROGEN GAS.
HAZARDOUS DECOMPOSITION PRODUCTS: IF HEATED TO DRYNESS, TMAH MAY DECOMPOSE TO TRIMETHYLAMINE AND METHANOL. TMAH REPORTEDLY DECOMPOSES IN BOILING WATER, RATE UNKNOWN.
SPILL OR LEAK PROCEDURES/WASTE DISPOSAL
SPILL OR LEAK PROCEDURES: WEARING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT, CONTAIN SPILL, COLLECT ONTO INERT ABSORBENT. PLACE IN SUITABLE CONTAINER. RINSE RESIDUAL WITH WATER.
WASTE DISPOSAL: DISPOSE OF OR INCINERATE IN ACCORDANCE WITH REGULATIONS. PRODUCT WOULD BE CONSIDERED A HAZARDOUS WASTE UNDER RCRA DUE TO HIGH

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-----CONTINUED)

PH UNLESS NEUTRALIZED PRIOR TO DISPOSAL.

------EMPLOYEE PROTECTION -----

RESPIRATORY PROTECTION: WHERE MIST IS PRESENT, PROVIDE LOCAL VENTILATION OR A RESPIRATOR CERTIFIED FOR MIST BY NIOSH.

PROTECTIVE CLOTHING: CLOTHING SUITABLE TO PREVENT SKIN CONTACT. SAFETY GOGGLES OR FULL FACE SHIELD. RUBBER GLOVES.

ADDITIONAL PROTECTIVE MEASURES: USE LOCAL EXHAUST VENTILATION. CONTACT LENSES SHOULD NOT BE WORN WHEN WORKING WITH THIS CHEMICAL.

THE TETRAMETHYLAMMONIUM ION (TMA), AS TMAH, IN THIS DEVELOPER IS TOXIC AT LOW LEVELS TO THE WATER FLEA CERIODAPHNIA DUBIA (CD) USED IN THE WHOLE EFFLUENT TOXICITY (WET) BIOMONITORING TEST. DATA FROM THE SUPPLIER SUGGESTS THAT CONTINUOUS INPUT OF 60-100 PPH TMA TO A SMALL POTW SHOULD NOT CAUSE WET TOXICITY. IT IS EXPECTED THAT DISCHARGES TO A SIZABLE POTW WILL NOT AFFECT THE ABILITY TO PASS THE WET TESTS. HOWEVER, DISCHARGES TO A SMALL POTW OR DIRECT DISCHARGES TO SURFACE WATERS SHOULD BE CAREFULLY REVIEWED. CONTACT AZ ELECTRONIC MATERIALS PRODUCT SAFETY FOR ADDITIONAL INFORMATION (908-429-3593 OR 908-429-3562).

------SPECIAL PRECAUTIONS-----

-----OTHER REGULATORY CONTROLS-----

OTHER REGULATORY CONTROLS:
THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

THIS PRODUCT IS NOT SUBJECT TO SARA TITLE III SECTION 313 REPORTING REQUIREMENTS UNDER 40 CFR 372.

OSHA PHYSICAL HAZARDS: CORROSIVE

OSHA HEALTH HAZARDS: EYE HAZARD IRRITANT SKIN HAZARD

SARA HAZARD CLASS: ACUTE: YES CHRONIC: NO FIRE HAZARD: NO PRESSURE: NO REACTIVITY: NO