



MATERIAL SAFETY DATA SHEET



SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/SUPPLIER NAME: Clariant Corporation, AZ Electronic Materials
PO Box 3700, 70 Meister Avenue
Somerville, NJ 08878-1258

TELEPHONE NUMBERS: Emergency-CHEMTREC: (800) 424-9300
Product Safety Information: (908) 429-3593
Customer Service: (800) 515-4164

PRODUCT NAME: AZ(R) 421K DEVELOPER
SYNONYMS: None

MSDS NO. 70A1
REVISION DATE: 11/19/1999
DATE PRINTED: 04/25/2000

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name & CAS Number</u>	<u>Weight Percent</u>	<u>Hazardous?</u>	<u>NJ Trade Secret #</u>	<u>Ingredient Synonyms</u>	<u>Other Information:</u>
Potassium hydroxide 001310-58-3	1	Yes	NA	Caustic potash	None

<u>Chemical Name & CAS Number</u>	<u>Weight Percent</u>	<u>Hazardous?</u>	<u>NJ Trade Secret #</u>	<u>Ingredient Synonyms</u>	<u>Other Information:</u>
Water 007732-18-5	>98	No	NA	None	NJ/PA RTK listings, Not on any other state RTK list.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Clear, colorless liquid. Noncombustible. Water soluble. Causes severe eye irritation. Causes moderate skin irritation. No odor.

POTENTIAL HEALTH EFFECTS:

Eye:
Causes severe eye irritation

Skin:

Causes moderate skin irritation.

Ingestion:

No hazard in normal industrial use.

Inhalation:

May be hazardous by inhalation of mist.

Systemic Effects:

No hazard in normal industrial use.

Reproductive & birth defects:

Exposures having no adverse effect on the mother should have no effect on the fetus.

Relevant Routes of Exposure:

Liquid and mist contact with skin and eyes. Inhalation of mist.

Medical Conditions Aggravated:

Preexisting skin, eye, and respiratory conditions may be aggravated.

ENVIRONMENTAL OVERVIEW:

Harmful to fish.

SECTION 4. FIRST AID MEASURES

FIRST AID PROCEDURES:

Inhalation:

Remove victim to fresh air. Consult physician if irritation occurs.

Eye Contact:

Flush thoroughly with water for 15 minutes. Get immediate medical help.

Skin Contact:

Immediately remove contaminated clothing and wash affected area thoroughly with soap and water. Consult physician if exposure is extensive or if irritation occurs.

Ingestion:

If person is conscious, give water or milk to dilute stomach contents. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult physician.

SECTION 5. FIRE FIGHTING MEASURES

Noncombustible. Water-based material containing no combustible components. Compatible with extinguishing agents.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures:

Wearing appropriate personal protective equipment, contain spill, collect onto inert absorbent, and place in a suitable container. Rinse residual with water.

SECTION 7. HANDLING AND STORAGE

Handling:

Avoid contact with skin, eyes, and clothing. Use only with adequate ventilation and proper protective eyewear, gloves, and clothing. Wash thoroughly after handling. Keep container closed.

Storage:

Store in original container. Store at appropriate temperature. See label for details. Keep from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Where mist is present, provide local exhaust ventilation or a respirator certified for mist by NIOSH.

Personal Protective Equipment (PPE):

Clothing suitable to prevent skin contact. Safety goggles or full face shield to protect against splashes. Rubber gloves.

Exposure Guidelines:

<u>Chemical Name & CAS Number</u>	<u>Weight Percent</u>	<u>Manufacturer's TWA TLV*</u>	<u>ACGIH TWA TLV*</u>	<u>OSHA PEL*</u>	<u>NIOSH REL*</u>	<u>AIHA WEEL*</u>
Potassium hydroxide 001310-58-3	1		2 mg/m3		2 mg/m3	

<u>Chemical Name & CAS Number</u>	<u>Weight Percent</u>	<u>Manufacturer's TWA TLV*</u>	<u>ACGIH TWA TLV*</u>	<u>OSHA PEL*</u>	<u>NIOSH REL*</u>	<u>AIHA WEEL*</u>
Water 007732-18-5	>98					

*TWA TLV = Time Weighted Average Threshold Limit Value

ACGIH = American Conference of Governmental Industrial Hygienists

OSHA PEL = Occupational Safety and Health Administration Permissible Exposure Limit

NIOSH REL = National Institute of Occupational Safety and Health Recommended Exposure Limit

AIHA WEEL = American Industrial Hygiene Association Workplace Environmental Exposure Level

**Skin Notation

***Hoechst Celanese Workplace Exposure Level (HCC WEL); included is a "no contact" recommendation for NMP due to its skin absorption properties.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid.
Odor:	No odor.
Physical State:	Liquid with dissolved solids.
pH	13.2
Vapor Pressure	About the same as water.
Boiling Point:	100 deg C
Solubility in water:	Soluble.
Specific gravity:	1.007
VOC:	0
Evaporation rate (butyl acetate=1):	About the same as water.
Viscosity:	Similar to water.
% Volatile:	99%

SECTION 10. STABILITY AND REACTIVITY

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.

SECTION 11. TOXICOLOGICAL INFORMATION

Carcinogen:

IARC: NO NTP: NO OSHA: NO

Ingredient Toxicity Data:

<u>Chemical Name & CAS Number</u>	<u>Weight Percent</u>	<u>oral rat LD50</u>	<u>skin rbt LD50</u>	<u>inh rat LC50</u>
Potassium hydroxide 001310-58-3	1	1230 mg/kg		

<u>Chemical Name & CAS Number</u>	<u>Weight Percent</u>	<u>oral rat LD50</u>	<u>skin rbt LD50</u>	<u>inh rat LC50</u>
Water 007732-18-5	>98			

TOXICITY HAZARD STATEMENTS FOR PRODUCT:

Eye Effects:

Testing in rabbits shows that the material is a severe eye irritant.

Skin Effects:

Testing in animals shows that this material is a moderate skin irritant.

Acute Oral Effects:

Testing in animals shows that this material is toxic (rat acute oral LD50 between 50 and 500 mg/kg)

SECTION 12. ECOLOGICAL INFORMATION

Ingredient Ecological Toxicity Data:

<u>Chemical Name & CAS Number</u>	<u>Weight Percent</u>	<u>Fish LC50</u>	<u>Daphnia EC50</u>	<u>Algae IC50</u>
Potassium hydroxide 001310-58-3	1	80 mg/L		

<u>Chemical Name & CAS</u>	<u>Weight Percent</u>	<u>Fish LC50</u>	<u>Daphnia EC50</u>	<u>Algae IC50</u>
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Number

Water >GB
007732-18-5

Environmental hazard information statements (using EU classification criteria):

Toxicity to fish:

Harmful (LC50 between 10 and 100 mg/L).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal:

Consult local, state, and federal regulations. This product would be considered a hazardous waste under RCRA due to high pH unless neutralized prior to disposal.

SECTION 14. TRANSPORT INFORMATION

DOT/IATA Shipper Entry:

Potassium hydroxide solution, 8, UN1814, III

SECTION 15. REGULATORY INFORMATION

TSCA Inventory Status:

All components of this product are listed on the TSCA Inventory.

SARA Title III section 313:

This product is not subject to SARA Title III Section 313 reporting requirements under 40CFR372.

OSHA Physical Hazards:

None

OSHA Health Hazards:

Irritant, Eye Hazard, Skin Hazard.

SARA (311, 312) Hazard Class(es):

Acute health hazard.

SECTION 16. OTHER INFORMATION

HMIS Ratings:

Health = 2; Flammability = 0; Reactivity = 0; PPE=G

NFPA Ratings:

Health = 2; Flammability = 0; Reactivity = 0; Special Hazard = None.

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