Material Safety Data Sheet
#M-23014

***SECTION I* - General Information**

Product Name: Autex RP Developer Replenisher, Concentrate
Catalog No. 23014

Chemical Family:
Photographic Developer

Formula:
Aqueous Mixture

Transportation Information:

Regulated by U.S. Department of Transportation? Yes
Proper Shipping Name: Acetic Acid Solution
U.N. Identification Number: UN2790
Hazard Class: 8
Packing Group: II
Exceptions: Limited Quantity

Manufacturer:
ALLIED Diagnostic Imaging Resources, Inc.
5440 Oakbrook Parkway
Norcross, GA 30093

Manufacturer's Phone Number:
(770) 448-0250

CHEMTREC Phone Number:
(800) 424-9300

***SECTION II* - Product and Hazardous Ingredients Information**

Item #1503 (Part A)	CAS#	PERCENT	PEL (TWA)	SARA RQ/TPQ	
Potassium Hydroxide	1310-58-3	1-5	2 mg/m3	1000#	N/A
Sodium Sulfite	7757-83-7	5-10	N/A	N/A	N/A
Potassium Sulfite	10117-38-1	10-15	N/A	N/A	N/A
Sodium Carbonate	497-19-8	1-5	N/A	N/A	N/A
Hydroquinone	123-31-9	5-10	2mg/m3	1#-500#	
Water	7732-18-5	50-55	N/A	N/A	N/A

Contains less than 0.05% Nitrilotriacetic acid, trisodium salt (CAS# 5064-31-3). The International Agency for Research on Cancer (IARC) lists Nitrilotriacetic acid, trisodium salt as Group 2B (Possible Carcinogen). Carcinogens present on 0.1% or more are required to be listed on Material Safety Data Sheets.

Item #1603 (Part B)					
Acetic Acid	64-19-7	55-60	10 ppm (STEL 15 ppm)	5000#	N/A
1-Phenyl-3-Pyrazolidone	92-43-3	10-15	N/A	N/A	N/A
Water	7732-18-5	20-25	N/A	N/A	N/A

Item #1725 (Part C)					
Glutaraldehyde	111-30-8	20-25	0.2 ppm (ceiling)	N/A	N/A
Water	7732-18-5	75-80	N/A	N/A	N/A

***SECTION III* - Physical Data**

Boiling Point: >212° F.-Part A&C; Part B-N/A

Vapor Pressure (mmHg): Part A&C-17.0; Part B-15.0
Vapor Density (mmHg): Part A&C-0.6; Part B-1.83
Solubility in Water: Complete
Appearance and Odor: Part A-Pale yellow, odorless; Part B-Amber color, vinegar odor; Part C-Clear, aldehyde odor

Specific Gravity: Part A-1.29, Part B-1.080; Part C-1.080

Percent Volatile by Weight: 55%
Evaporation Rate: N/A
pH: Part A-11.40; Part B-2.5; Part C-3.0

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***SECTION IV* - Fire and Explosion Hazard Data**

Parts A & C

Flash Point: None

Extinguishing Media: Use method appropriate for surrounding fire.

Special Fire Fighting Procedures: Use protective clothing to prevent contact with skin and eyes.

Unusual Fire and Explosions Hazards: When heated to decomposition, it can emit toxic fumes of SO_2.

Part B

Flash Point: >225°F

Extinguishing Media: Water spray, alcohol foam, dry chemical, carbon dioxide.

Special Fire Fighting Procedures: Use protective clothing to prevent contact with skin and eyes. Use self-contained breathing apparatus.

Unusual Fire and Explosions Hazards: When heated to decomposition, it can emit toxic fumes. Will produce CO_2, and possible CO. Reacts vigorously with oxidizing materials.

***SECTION V* - Health Hazard Data**

TLV (ACGIH): Hydroquinone (2mg/m3), Potassium Hydroxide (2 mg/m3)

Effects of Overexposure: (Part A)

Inhalation: Low hazard for ordinary industrial handling.

Eyes: Vapor may cause irritation. Contact may cause burns.

Skin: Repeated and prolonged contact may cause irritation and burns.

Ingestion: Do **Not** take internally. Harmful if swallowed. Drink water to dilute concentration. Induce vomiting only as directed by medical personnel.

Pure Component Toxicology Information

Hydroquinone**:** Moderately toxic by oral ingestion. It is a skin and eye irritant and may cause an allergic reaction in sensitive individuals. Hydroquinone also may cause brown staining of the conjunctiva following prolonged direct eye contact with the solid and may depigment the skin following repeated skin contact under some circumstances. Hydroquinone is a CNS stimulant based on animal studies. Although hydroquinone is not listed as a human carcinogen, it has caused cancer in some animal studies.

Sodium Carbonate: Slightly toxic by oral ingestion. It is a moderate to strong skin, eye, and respiratory tract irritant.

Potassium Sulfite and Sodium Sulfite: Slightly toxic by oral ingestion. It is a slight to moderate skin, eye, and respiratory tract irritant. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, hives, weakness and diarrhea following ingestion.

Potassium Hydroxide- Potassium hydroxide is corrosive to the skin, eyes and mucous membranes. It can cause severe burns and deep ulceration to the skin if not removed immediately. Contact with eyes can cause corneal and conjunctival ulceration with loss of sight if not washed out immediately. Ingestion is corrosive to the mouth and upper gastrointestinal tract and can cause severe abdominal pain, vomiting, diarrhea, collapse and death. Inhalation can cause irritation of the nose and throat.

TLV (ACGIH): Acetic Acid (25 mg/m3)

Short-Term Exposure Limit (STEL): Acetic Acid (15 ppm)

Effects of Overexposure: (Part B)

Inhalation: Vapor may cause severe irritation to nose and throat. May cause difficulty breathing.

Eyes: Vapor may cause irritation. Contact causes severe burns.

Skin: Repeated and prolonged contact may cause irritation and burns.

Ingestion: Do **Not** take internally. May cause severe burns to upper respiratory tract. Do **Not** induce vomiting. Drink water to dilute.

Pure Component Toxicology Information

Acetic Acid: Acetic acid is a skin and eye corrosive. Vapor irritates the eyes and respiratory system. Ingestion causes internal irritation and damage. The compound has been infrequently associated with skin sensitization in humans.

1-Phenyl-3-Pyrazolidone: This compound is an eye irritant. Ingestion of large doses may cause red blood cell

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destruction and anemia, and liver, kidney, spleen or testicular abnormalities. May cause adverse reproductive effects – such as infertility based on animal data.

TLV (ACGIH): Glutaraldehyde (0.2 ppm)

Effects of Overexposure: (Part C)

Inhalation: Vapor may cause severe irritation to nose and throat. May cause difficulty breathing.
Eyes: Vapor may cause irritation. Contact may cause irritation and burns.
Skin: Repeated and prolonged contact may cause irritation and burns.
Ingestion: Do **Not** take internally. May cause severe burns to upper respiratory tract. Do **Not** induce vomiting. Drink water to dilute.

Pure Component Toxicology Information

Glutaraldehyde: Acute effects of overexposure: Eye and skin contact with glutaraldehyde causes severe irritation; burns and permanent injury may result. Prolonged or repeated skin contact with glutaraldehyde may result in dermatitis. Inhalation of the mists causes irritation of the respiratory tract and inflammation of the lungs may result. Ingestion may cause moderate to severe gastric irritation. Ulceration or perforation of the gastrointestinal tract may occur. Glutaraldehyde is a strong irritant to the skin, eyes and respiratory tract. Repeated dermal contact may produce sensitization. Allergic dermatitis has been known to occur in humans.
Chronic effects of overexposure: Overexposures have been known to produce liver damage in animal studies.

Medical Conditions Aggravated by Exposure: Persons with preexisting eye, skin or respiratory tract disorders may be more susceptible to the effects of this product.
Carcinogenicity Information**:** None of the components present in this material at concentrations equal to or greater than 0.1 % are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Evidence of:

Carcinogen: Hydroquinone
Teratogenicity: N/A
Reproductive Toxicity: 1-Phenyl-3-Pyrazolidone
Mutagenicity: Sodium Sulfite, Hydroquinone
Synergistic Products: N/A

Emergency First Aid Procedures:

Skin: Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.
Eyes: Immediately flush with water, lifting upper and lower lids occasionally, get medical attention.
Ingestion: For Part A ONLY - Immediately drink two glasses of water to dilute concentration. Induce vomiting only as directed by medical personnel.
For Parts B & C-Do **Not** induce vomiting. Drink water to dilute concentration. **Get medical attention immediately. Never give anything by mouth to an unconscious person.**
Inhalation: Move to fresh air.
Primary route(s) of entry: Skin contact.

***SECTION VI* - Reactivity Data**

Stability: Stable.
Incompatibility: Strong acids, strong bases.
Hazardous Decomposition Products: When heated to decomposition, it can emit toxic fumes. Will produce CO_2, and possibly CO, SO_2.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: Keep away from heat or flame. Keep away from alkalis, amines, alcohols, and strong oxidizers.

***SECTION VII* - Spill or Leak Procedures**

Steps to be Taken in Case Material is Released or Spilled: Wear protective clothing as specified in Section VIII. Neutralize with sodium bicarbonate. If federal, state and local laws permit, flush to sewer with large amounts of water.

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Waste Disposal: Neutralize with sodium bicarbonate. If federal, state, and/or local laws permit, flush to sewer with large amounts of water. Otherwise, dispose of contaminated product and materials used in cleaning up the spill in a manner approved for this material. Consult proper federal, state and/or local regulatory agencies to ascertain proper disposal procedures.

***SECTION VIII* -Special Protection Information:**

Respiratory Protection (Specify Type): Should not be necessary under normal conditions. If exposed to vapors that exceed TLV or PEL, wear approved organic vapor/ mist respirator or an air supplied respirator as appropriate.

Ventilation: Use local exhaust to control vapors or mists to the PEL

Protective Equipment:
Gloves: Impervious gloves.
Eyes: Wear protective goggles.
Other: As necessary to prevent skin contact. Eyewash facilities in vicinity of use.

***SECTION IX* –Regulatory Information**

U.S. California Prop 65: none

Carcinogenicity Classification (components present at 0.1% or more):

The International Agency for Research on Cancer (IARC):
Sodium Sulfite: 3 (Classification not possible from current data)
Potassium Sulfite: 3 (not classifiable as to carcinogenicity to humans)
Hydroquinone: 3 (not classifiable as a carcinogen)
NOTE: Contains less than 0.05% Nitrilotriacetic acid, trisodium salt (CAS# 5064-31-3). The International Agency for Research on Cancer (IARC) lists Nitrilotriacetic acid, trisodium salt as Group 2B (Possible Carcinogen).

U.S. National Toxicology Program (NTP): none

U.S. Occupational Safety and Health Administration (OSHA): none

***SECTION X* -Special Precautions**

Precautions to be Taken in Handling and Storage: Do not store or consume food, drink or tobacco in surrounding area. Do not store near strong acids or bases. Wash thoroughly after use.

The information contained in this material safety data sheet is furnished without warranty of any kind. The user should consider this data a supplement to other information gathered and must make independent determination of suitability and completeness of information from this and other sources to assure proper use and disposal of the materials and the health and safety of employees and customers. This statement is incorporated as part of this Material Safety Data Sheet.

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