



## Material Safety Data Sheet

#M-24117

### SECTION I - General Information

**Product Name:** CPAC Imaging NDT Industrial Fixer Concentrate  
Catalog No. 24117

**Chemical Family:**  
Photographic Fixer

**Formula:**  
Aqueous Mixture

**Proper D.O.T. Shipping Name:**  
Not Regulated

**D.O.T. Hazard Classification:**  
Not Applicable

**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

<u>Item #2205 (Part A)</u>	<u>CAS#</u>	<u>PERCENT</u>	<u>PEL (TWA)</u>	<u>SARA</u>	
				<u>RO</u>	<u>TPO</u>
Ammonium Thiosulfate	7783-18-8	50-60	N/A	N/A	N/A
Sodium Sulfite	7757-83-7	4-8	N/A	N/A	N/A
Acetic Acid	64-19-7	2-6	10 ppm (STEL 15 ppm)	5000#	N/A
Citric Acid	77-92-9	1-5	N/A	N/A	N/A
Sodium Tetraborate	1303-96-4	1-5	2 mg/m <sup>3</sup> (STEL-6mg/m <sup>3</sup> )	N/A	N/A
Water	7732-18-5	25-30	N/A	N/A	N/A
<b>Item #2101 (Part B)</b>					
Aluminum Sulfate	10043-01-3	25-30	2 mg/m <sup>3</sup> (as Al)	5000#	N/A
Water	7732-18-5	70-75	N/A	N/A	N/A

### SECTION III - Physical Data

**Boiling Point:** >212° F  
**Vapor Pressure (mmHg):** 17.0  
**Vapor Density (mmHg):** 0.6  
**Solubility in Water:** Complete  
**Appearance and Odor:**  
Part A-Clear, slight vinegar odor; Part B-Clear, odorless

**Specific Gravity:** Part A-1.32; Part B-1.32

**Percent Volatile by Weight:** 65%

**Evaporation Rate:** N/A

**pH:** Part A-5.2; Part B-3.0

### SECTION IV - Fire and Explosion Hazard Data

**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. In case of fire wear a self-contained breathing apparatus to protect against poisonous gases that may be produced.

**Unusual Fire and Explosions Hazards:** When heated to decomposition, it can emit irritating toxic fumes, i.e. ammonia, oxides of sulfur and nitrogen. IDLH Ammonia – 500 ppm

### SECTION V - Health Hazard Data

**TLV (ACGIH):** Acetic Acid (10 ppm), Aluminum Sulfate (2 mg/m<sup>3</sup> - as Al).

**Short-Term Exposure Limit (STEL):** 15 ppm

### Effects of Overexposure:

**Inhalation:** Low hazard for ordinary industrial handling. Contact with strong acids, or if heated, sulfites may liberate sulfur dioxide gas. Sulfur dioxide gas can irritate the respiratory tract. Some asthmatics or hypersensitive individuals may experience difficult breathing.



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

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

**Ingestion:** Do **Not** take internally. May be harmful if swallowed. Sulfite sensitive individuals may experience wheezing, chest tightness, upset stomach and weakness.

### **Pure Component Toxicology Information:**

#### **Part A:**

**Ammonium Thiosulfate:** Ammonium Thiosulfate is considered to have a low toxicity to humans by ingestion. Inhalation of mist may cause irritation of the nose, throat and respiratory tract. Contact with eyes may cause irritation or a burning sensation. Prolonged or repeated contact with skin may cause irritation.

**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.

**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.

**Citric Acid:** Pure material is corrosive to the eyes and skin. Can cause permanent eye damage, including blindness, or permanent scarring of the skin.

**Sodium Tetraborate:** Ingestion or absorption through large areas of damaged skin may cause nausea, vomiting, and diarrhea, with delayed effects of skin redness and peeling. Mild irritation to nose and throat may occur when inhaled above PEL or TLV. Sodium tetraborate presents little or no hazard (to humans) and has low acute oral and dermal toxicities. May be harmful if swallowed. May cause reproductive harm or birth defects based on animal data.

#### **Part B:**

**Aluminum Sulfate:** Can cause oral and gastrointestinal irritation if swallowed. Nausea, vomiting, and diarrhea may occur. Skin contact will cause irritation. Long term exposure to skin by concentrated solutions will cause irritation. Prolonged contact with dilute solutions may cause irritation.

**Evidence of Carcinogen:** N/A

**Teratogenicity:** N/A

**Reproductive Toxicity:** Sodium Tetraborate

**Mutagenicity:** Sodium Sulfite

**Synergistic Products:** N/A

### **Emergency First Aid Procedures:**

**EYES:** Flush with large amounts of water for 15 minutes. Seek medical attention.

**SKIN:** Wash skin with soap and water. If irritation occurs, seek medical attention.

**INGESTION:** For **Part A:** Induce vomiting as directed by medical personnel.

For **Part B:** Have victim drink large amounts of water to dilute concentration. Seek medical attention giving full details of amount ingested and toxicity. Induce vomiting only as directed by medical personnel.

**INHALATION:** Move to fresh air. Treat symptomatically.

### **SECTION VI - Reactivity Data**

**Stability:** Stable.

**Incompatibility:** Strong acids, strong bases.

**Hazardous Decomposition Products:** When heated to decomposition, it can emit toxic fumes of SO<sub>2</sub> and ammonia. Contact with strong bases may release ammonia.

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** None known.

### **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. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Collect in a noncombustible container for prompt disposal. Clean surface thoroughly to remove residual contamination.



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For Large spills: Flush with plenty of water.

**Waste Disposal:** Discharge, treatment, or disposal may be subject to federal, state, or local laws.

### **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 vapor respirator.

**Ventilation:** Good general ventilation should be used. Ventilation should be sufficient so the applicable occupational exposure limits are not exceeded. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protective may be needed in special circumstances.

### **Protective Equipment:**

**Gloves:** Impervious gloves.

**Eyes:** Wear protective goggles.

**Other:** As necessary to prevent skin contact. Eyewash facilities in vicinity of use.

### **SECTION IX -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 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.

**Revised: May 14, 2007**