

# MATERIAL SAFETY DATA SHEET

This MSDS complies with OSHA'S Hazard Communication Standard 29 CFR 1910.1200 and OSHA Form 174

IDENTITY AND MANUFACTURER'S INFORMATION						
<b>NFPA Rating:</b> Health-1; Flammability-0; Reactivity-0; Special-- <b>Manufacturer's Name:</b> AMREP, INC. <b>Address:</b> 990 Industrial Park Drive Marietta, GA 30062			<b>HMIS Rating:</b> Health-1; Flammability-0; Reactivity-0; Personal Protection-B <b>DOT Hazard Classification:</b> ORM-D <b>Identity</b> (trade name as used on label): <b>MISTY CONTACT &amp; CIRCUIT BOARD CLEANER IV</b>			
<b>Date Prepared:</b> 01/06/03 <b>Prepared By:</b> AH/WB <b>Information Calls:</b> (770)422-2071 <b>EMERGENCY RESPONSE NUMBER:</b> 1(800)255-3924			<b>MSDS Number:</b> A00369 <b>Revision:</b> 1 <b>NOTICE:</b> JUDGMENT BASED ON INDIRECT TEST DATA			
SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION						
COMPONENTS-CHEMICAL NAMES AND COMMON NAMES (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)		CAS Number	SARA III LIST	OSHA PEL (ppm)	ACGIH TLV (ppm)	Carcinogen Ref. Source **
1,1,1,2-TETRAFLUOROETHANE		811-97-2	No	NE	NE	d
TRANS 1,2-DICHLOROETHYLENE		156-60-5	No	200	200	d
1,1,1,3,3-PENTAFLUOROBUTANE		406-58-6	No	NE	NE	d
1,1,1,2,2,3,4,5,5,5-DECAFLUOROPENTANE		138495-42-8	No	NE	NE	d
ETHANOL		64-17-5	No	1000	1000	d
SECTION 2 - PHYSICAL/CHEMICAL CHARACTERISTICS						
<b>Bolling Point:</b> N/A			<b>Specific Gravity (H<sub>2</sub>O=1):</b> Concentrate Only = 1.24			
<b>Vapor Pressure:</b> PSIG @ 70°F (Aerosols): 50-60			<b>Vapor Pressure (Non-Aerosols)(mm Hg and Temperature):</b> N/A			
<b>Vapor Density (Air = 1):</b> greater than 1			<b>Evaporation Rate ( = 1):</b> N/E			
<b>Solubility in Water:</b> None			<b>Water Reactive:</b> No			
<b>Appearance and Odor:</b> Clear, forceful, conical mist spray with ethereal odor. (Extension tube attachment delivers narrow forceful mist.)						
SECTION 3 - FIRE AND EXPLOSION HAZARD DATA						
<b>FLAMMABILITY</b> as per USA FLAME PROJECTION TEST (aerosols): extinguishes flame: categorized as NON-FLAMMABLE		<b>Auto Ignition Temperature</b> N/E	<b>Flammability Limits in Air by % in Volume:</b> % LEL: N/E      % UEL: N/E			
<b>FLASH POINT AND METHOD USED</b> (non-aerosols): N/A		<b>EXTINGUISHER MEDIA:</b> Foam, dry chemical, carbon dioxide.				
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b> Self-contained breathing apparatus.						
<b>Unusual Fire &amp; Explosion Hazards:</b> Do not expose aerosols to temperatures above 130°F or the container may rupture.						
SECTION 4 - REACTIVITY HAZARD DATA						
<b>STABILITY</b> <input checked="" type="checkbox"/> STABLE <input type="checkbox"/> UNSTABLE		<b>HAZARDOUS POLYMERIZATION</b> <input type="checkbox"/> WILL <input checked="" type="checkbox"/> WILL NOT OCCUR				
<b>Incompatibility</b> (Mat. to avoid): Strong oxidizing agents, strong bases (sodium hydroxide, potassium hydroxide), alkaline earth metals, finely powdered metals such as aluminum, magnesium or zinc.		<b>Conditions to Avoid:</b> Open flame, glowing metal surfaces, welding arcs, heat, sparks.				
<b>Hazardous Decomposition Products:</b> Carbon dioxide, carbon monoxide, hydrofluoric acid, hydrochloric acid, chlorine and possible carbonyl fluoride.						
SECTION 5 - HEALTH HAZARD DATA						
<b>PRIMARY ROUTES OF ENTRY:</b> <input checked="" type="checkbox"/> INHALATION <input type="checkbox"/> INGESTION <input checked="" type="checkbox"/> SKIN ABSORPTION <input type="checkbox"/> EYE <input type="checkbox"/> NOT HAZARDOUS						
ACUTE EFFECTS						
<b>Inhalation:</b> Excessive inhalation of vapors can cause central nervous system depression, dizziness, weakness, confusion, incoordination or unconsciousness. Irregular heart beat with a strange sensation in the chest, "heart thumping", apprehension, lightheadedness, feeling of fainting, dizziness, weakness may progress to loss of consciousness and death. Suffocation if air is displaced by vapors.						
<b>Eye Contact:</b> Irritation with tearing, pain or blurred vision. "Frostbite-like" effects may occur if vapors contact eyes.			<b>Skin Contact:</b> Slight irritation with itching, redness or swelling. Prolonged exposure may result in defatting of the skin. Overexposure to vapors may cause frostbite.			
<b>Ingestion:</b> Aspiration which may cause "chemical pneumonia". Symptoms include coughing, gasping, choking, shortness of breath, bluish discoloration of skin, rapid breathing and heart rate, and fever.						
<b>CHRONIC EFFECTS:</b> (Effects due to excessive exposure to the raw materials of this mixture) Excessive inhalation may result in central nervous system effects.						
<b>Medical Conditions Generally Aggravated by Exposure:</b> May aggravate existing eye, skin, or upper respiratory conditions.						
EMERGENCY FIRST AID PROCEDURES						
<b>Eye Contact:</b> Flush with water for 15 minutes. If irritated, seek medical attention.						
<b>Skin Contact:</b> Wash with soap and water. If irritated, seek medical attention.						
<b>Inhalation:</b> Remove to fresh air. Resuscitate if necessary. Get medical attention.						
<b>Ingestion:</b> DO NOT INDUCE VOMITING. Drink two large glasses of water. Get immediate medical attention.						
SECTION 6 - CONTROL AND PROTECTIVE MEASURES						
<b>Respiratory Protection (specify type):</b> If vapor concentration exceeds TLV, use respirator approved by NIOSH for organic vapor.						
<b>Protective Gloves:</b> Neoprene or other as recommended compatible by glove manufacturer.			<b>Eye Protection:</b> Safety glasses recommended.			
<b>Ventilation Requirements:</b> Adequate ventilation to keep vapor concentration below TLV.						
<b>Other Protective Clothing &amp; Equipment:</b> None						
<b>Hygienic Work Practices:</b> Wash hands with soap and water before handling food.						
SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE						
<b>Steps To Be Taken If Material Is Spilled Or Released:</b> Absorb with suitable medium. Incinerate or landfill according to local, state or federal regulations. DO NOT FLUSH TO SEWER.						
<b>Waste Disposal Methods:</b> Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.						
<b>Precautions To Be Taken In Handling &amp; Storage:</b> Do not puncture or incinerate containers. Do not store at temperatures above 130°F.						
<b>Other Precautions &amp;/or Special Hazards:</b> KEEP OUT OF REACH OF CHILDREN.						

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind.  
 \*\* Chemical Listed as Carcinogen or Potential Carcinogen. [a] NTP [b] IARC Monograph [c] OSHA [d] Not Listed [e] Animal Data Only



# TECHNICAL DATA SHEET

## A00369 Contact & Circuit Board Cleaner IV

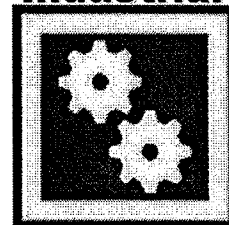
**Description:** This premium precision cleaner provides a solution for your most demanding industrial and electronics maintenance problems. The completely nonflammable formula utilizes the latest innovations in HFC chemistry to create a high purity, nonresidue, fast dry formula, that is completely plastics safe.

- Premium HFC Chemistry
- Removes Dirt, Dust, Flux, and Light Oils
- Nonflammable Formula will Not "Freeze Out"
- Nonconductive to Over 20 KV

**General Directions:** See Example Label & MSDS for specific information regarding product usage. Always test in an inconspicuous area before general use.

<b>Market Info:</b>	Can Size & Net Weight	16 oz./10 oz.
	USDA's Category Under Former Rating Program	N/A
<b>Physical Properties:</b>	General Appearance	Clear Spray
	Color	Colorless
	Fragrance/Odor	Ethereal
	Evaporation Rate (Water=1)	N/E
	Solubility In Water	Complete
	pH	N/A
	Specific Gravity (concentrate only)	1.24
	Spray Pattern	Forceful mist
	Shelf Life	Minimum 1 yr.
<b>Environmental Profile:</b>	2-Butoxyethanol (Butyl), E-Series or other Glycol Ethers	None
	% Phosphorus (elemental) (If < 0.5%, then express as PPM)	None
	Ozone Depleting Compounds	None
	Chlorinated Solvents, Phenol Compounds	None
	Works at room temperature	Yes
	Dibutyl Phthalate; NTA; EDTA; APE; NPE; DEA	None
	Acidic; Caustic; Alkaline; Corrosive; Reactive	No
	Contains heavy metals	No
	Recyclable Packaging	Yes
	% VOC (by weight)	17.0%
<b>Regulatory:</b>	Meets Current Consumer Products VOC Guidelines (CA OTC & Federal)	Yes
	EPA Registered	No
	USA CPSC Flame Extension	Not flammable
	NFPA Code 30B Storage Level	1
	HAPs (Hazardous Air Pollutants)	None
	CA Safe Drinking Water (PROP. 65) Ingredients	None
	Carcinogens, Mutagens, Teratogens (NTP, IARC, OSHA)	None
	SARA TITLE III, Sect. 313 Reportable	No
	DOT Hazard Classification	ORM-D
	<i>Note: Additional unknown trace elements may alter results.</i>	

### Industrial



#### HMIS Rating

Health=1  
 Flammability=0  
 Reactivity=0  
 Personal Protection=B

#### NFPA Rating

Health=1  
 Flammability=0  
 Reactivity=0

Manufactured by:



990 Industrial Park Drive • Marietta, GA 30062  
800-241-7766 • 770-422-2071 • Fax: 770-422-1737

11/05