SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Address: 8125 Cobb Center Drive Kennesaw, GA 30152

Product Information:	800-TECH-401
Customer Service:	800-645-5244

Emergency: Revision Date: (Chemtrec) 800-424-9300 February 17, 2010

В

Product Identification

Electro-Wash® PN						
Product Code: ES1678						
SECTION 2: COMPOSITION/INFORMATION ON IN	IGREDIENTS					
Chemical Name	CAS#	Wt. % Range				
Pentafluorobutane	406-58-6	20.0-50.0				
HCFC-225ca	422-56-0	10.0-20.0				
HCFC-225cb	507-55-1	10.0-20.0				
Perfluorocarbons	86508-42-1	10.0-20.0				
Trans-1,2-dichloroethylene	156-60-5	10.0-20.0				
Isohexanes	8030-30-6	1.0-5.0				
1,1,1,2-Tetrafluoroethane	811-97-2	5.0-30.0				
Carbon Dioxide	124-38-9	1.0-5.0				

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Clear, colorless liquid with faint ethereal odor. This product is nonflammable. Liquid may irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product vapor may produce dizziness and nausea. Potential Health Effects:

 Eyes:
 Liquid, aerosols and vapors of this product may be irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation.

 Skin:
 Prolonged contact can cause skin irritation, including redness, burning, drying and/or cracking of skin..

Ingestion: May be harmful if swallowed. Swallowing this material may result in nausea, vomiting and weakness followed by central nervous system depression. Inhalation: Can be harmful if inhaled. High concentrations of vapors in immediate area can cause dizziness, nausea, vomiting, unconsciousness and death.

SECTION 4: FIRST AID MEASURES

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.

Skin: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persist. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting. If conscious, give 2 glasses of water. Never give anything by mouth to an unconscious person. Keep head below knees to minimize chance of aspirating material into the lungs. Get medical attention immediately.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: None to boiling(TCC)

Extinguishing Media: Use water spray or fog, CO2, dry chemical or water stream when fighting fires involving this material.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

<u>Spills:</u> Shut off leak if possible and safe to do so. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

SECTION 7: HANDLING AND STORAGE

Avoid prolonged or repeated contact with eyes, skin, and clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor or mist. Do not reuse this container. Store in a cool dry place away from heat, sparks and flame. Do not store in direct sunlight.

KEEP OUT OF REACH OF CHILDREN.

Personal Protection

SECTION 8: EXPOSURE CONT	TROLS/PERSONAL PROTECTION				
Exposure Guidelines:					
CHEMICAL NAME	ACGIH TLV	OSHA PEL	OTHER		
HCFC-225ca	not established	not established	100 ppm*		
HCFC-225cb	not established	not established	100 ppm*		
Pentafluorobutane	not established	not established			
Perfluorocarbons	not established	not established			
trans-1,2-Dichloroethylene	200 ppm	200 ppm			
1,1,1,2-Tetrafluoroethane	not established	not established	1000 ppm*		
Isohexanes	500 ppm	not established	1000 ppm		
* Supplier's Occupational Exposure Limit					
Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. If vapor concentration exceeds TLV, use NIOSH approved organic					
vapor cartridge respirator. Wear safety glasses with side shields (or goggles) and rubber or other chemically resistant gloves.					
NFPA and HMIS Codes:	NFPA	HMI	S		
Health	1	1			
Flammability	0	0			
Reactivity	1	1			

	®							
ITW CHE	MTRONICS						MSDS #1	1678
SECTION	9: PHYSICAL AND C	HEMICAL PROPERT	IES					
	tate: Clear, colorless liqu			Solubility in W	Vater: Negligible			
Odor: Eth	ereal Odor			Specific Gravi	<u>ty:</u> 1.35			
<u>pH:</u> NA				(Water =1)				
	ssure: 294 mm Hg @ 68 I	7			ate: >1 (Butyl aceta	te=1)		
Boiling Po	<u>int:</u> 99°F (37C)			Percent Volati	<u>le:</u> 100%			
SECTION	10: STABILITY AND	REACTIVITY						
	This product is stable.							
	s to Avoid: Steam, oxidiz							
	<u>oility:</u> Do not mix with al	kali metals, pure oxygen,	strong base, open fl	ames, and welding arcs	. This product shou	ld not be used in lo	ong term con	tact with
	or zinc or their alloys.	-1.4			·	4 1	11 1 1	1-1!
	<u>f Decomposition</u> : Therm ic acid vapor.	al decomposition may rel	ease carbon monoxi	ide, carbon dioxide and	incompletely burne	a hydrocardons as	well as hydro	ochioric and
	Polymerization: Will not	toccur						
	to Avoid: Finely divided		alkaline earth meta	ls				
	11: TOXICOLOGICA							
Inhalation:		LINFORMATION		Ingestion:				
AK225ca /		LC50 rat 37,300 ppm/	36.800 ppm (4hr)*	AK225ca / AK225cb	LD	50/rat >5000 mg/	ko*	
	Dichloroethylene	LC50 rat 24,100 ppm		trans-1,2-Dichloroet		50/rat > 5,000 mg/		
Tetrafluoro	5	Rat ALC 567,000ppn		Pentafluorobutane		50 rat >2,000 mg/		
Pentafluor	obutane	LC50 rat >10% / 4hr	*			-	•	
Skin				Eye:				
AK225ca/	AK225cb	LD50rabbit >2,0)00 mg/kg*	AK225ca / AK225ct	n Not	an irritant*		
	Dichloroethylene		000 mg/kg*	trans-1,2-Dichloroet		D-SEV*		
Pentafluor	2		ot an irritant*	Pentafluorobutane	2	oit SL*		
*Informati	on provided by manufactu	irer.						
Cancer Inf	ormation: No ingredients	in this product are listed						
Reproduct	ive effects: none		Teratogenic effect	ts: none	Ν	Autagenic effects:	none	
SECTION	12: ECOLOGICAL IN	FORMATION						
Avoid rune	off into storm sewers and	ditches which lead to wa	terways. Water runc	off can cause environme	ental damage.			
REPORT								
	tions require reporting spi							
The toll fre	ee number for the US Coa	st Guard National Respor	se Center is: 1-800-	-424-8802				
	13: DISPOSAL CONS							
Dispose of	in accordance with all fe	deral, state and local regu	lations. Water rund	off can cause environme	ental damage.			
SECTION	14: TRANSPORTATI	ON INFORMATION						
	Proper		Su	8	Hazard	Pkg.	Max.	
	Shipping Name	UN Number	Class Ri	I	Label	Instr.	Quantity	
<u>Air:</u>	Aerosols non-flammable	UN 1950	2.2 NA		Non-flammable	203	75 k.g; 15	U
Ground:	Consumer Commodity		NA	ORM-D NA	NA	ORM-D	Pkg.	173.306
	ORM-D					Auth.		
	15: REGULATORY I							
	313 SUPPLIER NOTIFIC							
-	ct contains the following	chemicals subject to the	reporting requireme	ents of Section 313 of th	he Emergency Plann	ing and Communi	ty Right-To-	Know Act of
1986 (40 C Chemical	· · · · · · · · · · · · · · · · · · ·		C	AS No.		Vt. % Range		
HCFC-225				2-56-0		0.0-20.0		
HCFC-225				2 50 0 7-55-1		0.0-20.0		
	nation should be included	on all MSDSs copied an				2010		
TOXIC SUBSTANCES CONTROL ACT (TSCA).								
All ingredients of this product are listed on the TSCA Inventory.								
WHMIS: Class A; Class D2B								
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.								
SECTION 16: OTHER INFORMATION This product is a Level 1 aerosol. Do not puncture or incinerate containers. Normal ventilation for standard manufacturing practices is usually adequate. Local								
			ate containers. Nor	mal ventilation for stan	dard manufacturing	practices is usually	adequate. I	Local
	ould be used when large a							
To the bes	t of our knowledge, the in	formation contained here	ein is accurate Hoy	vever all materials may	v present unknown k	azards and should	be used with	h caution In

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.