SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Address:
8125 Cobb Center Drive
Kennesaw, GA 30152

Product Information: 800-TECH-401 Emergency: (Chemtrec) 800-424-9300
Customer Service: 800-645-5244 Revision Date: April 1, 2011

Product Identification

ELECTRO-WASH ® VZ

Product Code: ES6100, ES6119

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt. % Range
1,1,1,2,2,3,4,5,5,5-decafluoropentane (HFC-43-10mee)	138495-42-8	1.0-25.0
1,1,1,3,3-pentafluorobutane (HFC-365mfc)	406-58-6	0.0-40.0
trans-1,2-dichloroethylene	156-60-5	15.0-40.0
1,1,1,2-tetrafluoroethane (HFC-134a)	811-97-2	25.0-60.0
methanol	67-56-1	0.1-1.0

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.

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 and vomiting.

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, CO_2, 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

Spills: 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. Keep container closed when not in use. Do not store in direct sunlight.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

CHEMICAL NAME	ACGIH TLV	OSHA PEL	OTHER
1,1,1,2,2,3,4,5,5,5-decafluoropentane	NE	NE	200 ppm*
trans-1,2-dichloroethylene	200 ppm	200 ppm	
1,1,1,3,3-pentafluorobutane	NE	NE	
1,1,1,2-tetrafluoroethane	NE	NE	1000 ppm*
methanol	200 ppm	200 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 when handling this material.

NFPA and HMIS Codes:	NFPA	HMIS
Health	1	1
Flammability	0	0
Reactivity	1	1
Personal Protection	-	B

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear, colorless liquid
Odor: Ethereal Odor
pH: NA
Vapor Pressure: 220 mmHg@ 70 F (Liquid)
Boiling Point: 95°F (35C) (initial)
Viscosity: NA

Solubility in Water: Negligible
Specific Gravity: 1.29
(Water =1)
Evaporation Rate: >1
(Butyl acetate=1)
Percent Volatile: 100%

SECTION 10: STABILITY AND REACTIVITY

Stability - This product is stable.
Conditions to Avoid: Steam, oxidizers, elevated temperatures. Keep away from elevated temperatures. Do not spray near open flames, red hot surfaces or other sources of ignition.
Incompatibility: Do not mix with chemically active metals such as potassium, magnesium, zinc and powdered aluminum, strong base, caustic soda, caustic potash or oxidizing.
Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen fluoride.
Hazardous Polymerization: Will not occur
Conditions to Avoid: Finely divided active metals, alkali and alkaline earth metals

SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation:

Tetrafluoroethane	Rat ALC	567,000 ppm/4hrs
trans-1,2-dichloroethylene	LC50 rat	24,100 ppm/4hrs
decafluoropentane	Rat LC50	11,100 ppm/4hrs
pentafluorobutane	LC50 rat	>10%/ 4hrs
methanol	LC50 rats	64,000 ppm/4hrs

Ingestion:

trans-1,2-dichloroethylene	LD50 rats	>5,000 mg/kg
decafluoropentane	DL50 rats	>5,000 mg/kg
pentafluorobutane	LD50 rats	>2,000 mg/kg
methanol	LD50 rats	5,628 mg/kg

Skin

methanol	20mg/24H	MLD
trans-1,2-dichloroethylene	LD50 rabbit	>5,000 mg/kg
decafluoropentane	Rabbits ALD	>5,000 mg/kg

Eye:

methanol	40 mg MOD
trans-1,2-dichloroethylene	MOD-SEV

Cancer Information: No ingredients listed as human carcinogens by NTP or IARC
Reproductive effects: none Teratogenic effects: none Mutagenic effects: none

SECTION 12: ECOLOGICAL INFORMATION

Avoid runoff into storm sewers and ditches which lead to waterways. Water runoff can cause environmental damage.

REPORTING

US regulations require reporting spills of this material that could reach any surface waters.
The toll free number for the US Coast Guard National Response Center is: **1-800-424-8802**

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

SECTION 14: TRANSPORTATION INFORMATION

	Proper Shipping Name	UN Number	Class	Sub. Risk	Pkg. Group	Hazard Label	Pkg. Instr.	Max. Quantity
Air:	Aerosols non-flammable n.o.s.	UN 1950	2.2	NA	NA.	Non-flammable Gas	203 Y203	75 k.g; 150k.g. 30 kg
Ground:	Consumer Commodity ORM-D	NA	ORM-D	NA	NA	ORM-D	Pkg. Auth.	173.306

SECTION 15: REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION
This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).
Methanol CAS # 67-56-1 0.1-1.0%
This information should be included on all MSDSs copied and distributed for this material.
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 exhaust should be used when large amounts are released.

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.