

Electronics



Electro-Wash® MX

The extra-strength, plastic safe universal cleaner with a moderate evaporation time

- Safe on plastics
- Flammable
- Xtra cleaning strength
- Ozone safe
- Moderate evaporation rate increases cleaning power
- Leaves no residue
- Removes organic and ionic soils

Applications:

- Removes oils and hydraulic fluids from mechanical assemblies, tools
- Cleans handling soils from circuitry before reassembly
- Removes grease from assembly lines
- Cleans Hard-line coax cable
- Cleans Metal and fiber optic cable splices

ES1621 10 oz / 283 g aerosol

CP421 25 - 8" (20.3 cm) x 10" (25.4 cm) premoistened wipes (9 ml each)

T021 100 - 6" (15.2 cm) x 8.5" (21.5 cm) wipes/tub

FW2150 9 g (0.32 oz.) pen



SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Information: 800-TECH-401

Product Identification

Electro-Wash MX (Aerosol)

Product Code: ES1621

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Wt. % Range
Naphtha	64741-66-8	60.0-90.0
Ethanol	64-17-5	1.0-25.0
Ethyl acetate	141-78-6	0.1-10.0
Isopropanol	67-63-0	1.0-20.0
1,1-difluoroethane	75-37-6	5.0-25.0
Carbon dioxide	124-38-9	1.0-5.0

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Clear, colorless liquid with mild hydrocarbon odor. This product is extremely flammable. Liquid may irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product may produce drowsiness and a headache.

Potential Health Effects:

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

Skin: Contact causes skin irritation.

Ingestion: Harmful if swallowed. Irritating to the mouth, throat and stomach. May cause vomiting.

Inhalation: Harmful if inhaled. High concentrations in immediate area can displace oxygen and cause dizziness, unconsciousness and even death, with longer exposure. Keep people away from such vapors without self-contained breathing apparatus.

Pre-Existing Medical Conditions Aggravated by Exposure: Heart, lung, skin, eye.

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 separately before reuse.

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

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: 45 F (7C) TCC **LEL/UEL:** 0.9/6.2 (% by volume in air)

Extinguishing Media: Use alcohol foam, carbon dioxide or water spray 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

Large Spills: Shut off leak if possible and safe to do so. Wear a self-contained breathing apparatus and appropriate personal protective equipment. Absorb spill with inert material (i.e. 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 that lead to waterways.

Small Spills: Absorb spill with inert material (i.e. dry sand or earth), then place in a chemical waste container for proper disposal.

SECTION 7: HANDLING AND STORAGE

Avoid prolonged or repeated contact with skin, eyes or clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor. Do not reuse this container. Store in a cool dry place, away from heat, sparks or flames. 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	ACGIH STEL	OTHER
Naphtha	NA	NA	NA	281 ppm (Exxon)
Ethanol	1000 ppm	1000 ppm	NA	
Isopropanol	200 ppm	400 ppm	400ppm	
Ethyl acetate	400 ppm	400 ppm	NA	
1,1-difluoroethane	NA	NA	NA	1,000 ppm (DuPont)

Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. If vapor concentration exceeds TLV, use NIOSH approved organic vapor cartridge respirator. Wear safety glasses with side shields, goggles and rubber or other chemically resistant gloves when handling this material.

NFPA and HMIS Codes:

	NFPA	HMIS
Health	1	1
Flammability	3	3
Reactivity	1	1
Personal Protection	-	B

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear, colorless liquid

Odor: Mild hydrocarbon solvent

pH: NA

Vapor Pressure: 43 mm Hg @ 68 F (liquid)

Vapor Density: 3.9 (Air 1)

Boiling Point: 239° F (116C) (initial)

Solubility in Water: Negligible

Specific Gravity: 0.735 @ 68F

Evaporation Rate: 1.9

(Butyl acetate=1)

Percent Volatile: 100%

SECTION 10: STABILITY AND REACTIVITY

Stability: This product is stable. Conditions to Avoid: Do not spray near open flames, red hot surfaces or other sources of ignition.

Incompatibility: Do not mix powdered alkali and alkaline earth metals or strong oxidizing agents.

Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide and incompletely burned hydrocarbons.

Hazardous Polymerization: Will not occur. Conditions to avoid: NA

SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation:

Ethanol	LC50 rats	20,000 ppm/10 hr
Ethyl acetate	LC50 rats	200gm/m ³
Isopropanol	LC50 rats	12,000 ppm/8 hrs
1,1-difluoroethane *	Rat ALC	383,000 ppm/4hrs

Ingestion:

Ethanol	LD50 rats	7060 mg/kg
Ethyl acetate	LD50 rats	5620 mg/kg
Isopropanol	LD50 rats	5,800mg/kg
1,1-difluoroethane *	Rat ALD	>1500 mg/kg
Naphtha*	LD50 rats	>5000 mg/kg

Skin:

Isopropanol	rabbit	MILD
Ethanol	rabbit	400 mg open MILD
Ethyl acetate	LD50 rabbit	>20 mL/kg
Naphtha*	LD50 rabbit	>3,160 mg/kg

Eyes:

Isopropanol	rabbit	SL-MODERATE
Ethanol	rabbit	500 mg SEVERE

*Information from manufacturer

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

Environmental Impact 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 CONSIDERATION

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
<u>Air:</u> Aerosols flammable	UN 1950	2.1	NA	NA	Flammable Gas	203	75/150kg
<u>Ground:</u> 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 no 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).

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 B3; 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 3 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.