



MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

PRODUCT NAME: ELECTRIC CONTACT CLEANER
PART #: N4830

(NFPA RATINGS)	(HMIS RATINGS)
HEALTH: 2	HEALTH: 2
FIRE: 0	FIRE: 0
REACTIVITY: 0	REACTIVITY: 0

HMIS PROTECTIVE EQUIPMENT: B

PRODUCT INFORMATION (800) 262-0012	MEDICAL EMERGENCY (856) 455-4555
TRANSPORTATION EMERGENCY CHEMTREC (800) 424-9300	DISTRIBUTOR / MANUFACTURER NATIONAL REFRIGERANTS, INC. 661 KENYON AVE. ROSENHAYN, NJ

HAZARDOUS INGREDIENTS

OSHA Hazardous Components (29 CFR 1910.1200)

	CAS NUMBER	EXPOSURE LIMITS: 8 HR. TWA	
		OSHA PEL	ACGIH TLV
1,1,1,2-Tetrafluoroethane	811-97-2	Not established	Not established
1-Bromopropane	106-94-5	* Not established	Not established
3,3-Dichloro-1,1,1,2,2-Pentafluoropropane	422-56-0	Not established	Not established
1,3-Dichloro-1,1,2,2,3-Pentafluoropropane	507-55-1	Not established	Not established

*Manufacturer's suggested Exposure Limit = 25 ppm over 8 hours.

HAZARDS IDENTIFICATIONS

PRIMARY ROUTES OF ENTRY: (X) INHALATION () INGESTION (X) SKIN ABSORPTION (X) EYE

ACUTE EFFECTS:

INHALATION: 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 or fainting, dizziness, weakness may progress to loss of consciousness and death. Suffocation if air is displaced by vapors.

EYE CONTACT: Irritation with tearing, pain or blurred vision.

SKIN CONTACT: Slight irritation with itching, redness or swelling. Prolonged exposure and direct spraying of skin may result in defatting of the skin and/or frostbite.

INGESTION: Aspiration which may cause "chemical pneumonia". Symptoms include coughing, gasping, choking, shortness of breath, bluish discoloration of skin, rapid breathing and increased heart rate.

CHRONIC EFFECTS: (Effects due to excessive exposure to the raw materials of this mixture) Excessive inhalation may result in central nervous system effects.

MEDICAL CONDITION GENERALLY AGGRAVATED BY EXPOSURE: May aggravate existing eye, skin, or upper respiratory conditions.

CARCINOGENICITY: LISTED IN NTP: No IARC: No OSHA: No

WARNING: This product contains a chemical or chemicals known to the State of California to cause birth defects or other reproductive harm.



FIRST AID MEASURES

INHALATION: Remove to fresh air. Resuscitate if necessary. Get medical attention.
EYE CONTACT: Flush with water for 15 minutes. If irritated, seek medical attention.
SKIN CONTACT: Wash with soap and water. If irritated, seek medical attention.
INGESTION: DO NOT INDUCE VOMITING. Drink two large glasses of water. Get immediate medical attention.

FIRE FIGHTING MEASURES

FLAMMABILITY as per USA FLAME PROJECTION TEST (aerosols):
extinguishes flame: NOT categorized as FLAMMABLE
FLASHPOINT (TEST METHOD): (non-aerosols) N/A
FLAMMABLE LIMITS: LOWER: N/E UPPER: N/E
AUTOIGNITION TEMPERATURE: N/E
SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus.
EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical or foam.
UNUSUAL FIRE & EXPLOSION HAZARDS: Do not expose aerosols to temperatures above 130 deg. F or the container may rupture.

ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED: Absorb with suitable medium. Incinerate or landfill according to local, state or federal regulation. DO NOT FLUSH TO SEWER.

HANDLING AND STORAGE

Do not puncture or incinerate containers. Do not store at temperatures above 130 deg. F.

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Adequate ventilation to keep vapor concentration below TLV.

PERSONAL PROTECTION:

Respiratory Protection: If vapor concentration exceeds TLV, use respirator approved by NIOSH for organic vapor.

Protective Gloves: Neoprene or other as recommended compatible by glove manufacture.

Eye Protection: Safety glasses recommended.

Other Protective Clothing & Equipment: None

Hygienic Work Practices: Wash hands with soap and water before handling food.

PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE: psig @ 70°F (aerosols): 50-60

SPECIFIC GRAVITY (H₂O=1): Concentrate Only = 1.33

SOLUBILITY IN WATER: Negligible

APPEARANCE & ODOR: Spray as a clear, forceful, stream with solvent odor.

BOILING POINT: N/A

VAPOR DENSITY (Air=1) : >1

EVAPORATION RATE (H₂O=1): >1

WATER REACTIVE: No

VAPOR PRESSURE: (non-aerosols) N/A



STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Strong oxidizing agents, strong bases sodium hydroxide, potassium hydroxide, alkaline earth metals, finely powdered metals such as aluminum, magnesium or zinc.

CONDITIONS TO AVOID: Open flame, glowing metal surfaces, welding arcs, heat, sparks.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrofluoric acid, hydrochloric acid, chlorine, bromine and possible carbonyl halides.

HAZARDOUS POLYMERIZATION: Will not occur.

DISPOSAL CONSIDERATIONS

Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.

TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Consumer commodity, ORM-D

REGULATORY INFORMATION

SARA TITLE III (Superfund Amendments and Reauthorization Act): Chemical components of this product are not listed on the SARA Title III list.

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DATE OF LATEST REVISION/REVIEW:
PERSON RESPONSIBLE FOR MSDS:

10/09
Ray Madariaga