

**Aerove 417 Contact Cleaner (NF) & Crown 8376 Electronic Component Cleaner - Aerosol**



# Material Safety Data Sheet

TO: MSDS USERS

Please find below the material safety data sheet as per your request.

The information presented in these forms is believed to be correct and sufficient to meet the requirements of OSHA Hazard Communication standard (29 CFR 1910.1200) concerning worker's right to know. In order for the information contained in the MSDS to be most helpful we recommend that these forms be made available to all those who handle or may otherwise be exposed to the product.

This MSDS covers the following Aerove aerosol products.

**PRODUCT NAME:** Aerove - 417 Contact Cleaner (NF)  
Crown - 8376 Electronic Component Cleaner

**SECTION I - MANUFACTURER IDENTIFICATION**

**MANUFACTURER'S NAME:** Aerove Industries Inc. **ADDRESS:** 1198 Mark Circle, Gardnerville, NV 89410  
**INFORMATION PHONE:** 775-782-0100 **EMERGENCY PHONE:** 1-800-424-9300  
**DATE REVISED:** 12-06-02 **REASON REVISED:** Updated

**SECTION II - HAZARDOUS INGREDIENTS / SARA III INFORMATION  
OCCUPATIONAL EXPOSURE LIMITS**

HAZARDOUS COMPONENTS	WEIGHT PERCENT	OSHA PEL	ACGIH TLV	OTHER	LD50 SPECIES & ROUTE	LC50 SPECIES & ROUTE
*Dichlorofluorethane (CAS 1717 00 6)	60 - 100	N/A	N/A	500 ppm TWA	> 5000 mg / kg (Rat-Oral)	301 mg / liter , 4 hr (Rat-Inha.)
Carbon Dioxide (CAS 124-38-9)	1 - 5	5000 ppm	5000 ppm		N/A	N/A

\*Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

**NOTE:** N/A applies to not available or not applicable

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**SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS**

**BOILING POINT:** N/A **SPECIFIC GRAVITY (H2O=1):** 1.2 **COEFFICIENT OF WATER/OIL DIST:** N/A  
**ODOR THRESHOLD:** N/A **VAPOR DENSITY:** Heavier than air **SOLUBILITY IN WATER:** Negligible  
**EVAPORATION RATE:** Faster than n-Butyl Acetate **APPEARANCE AND ODOR:** Clear liquid with slight ethereal odor  
**FREEZING POINT:** N/A **pH:** N/A

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** None **METHOD USED:** Estimated **AUTOIGNITION TEMPERATURE:** 989° F (532° C)  
**FLAMMABLE LIMITS IN AIR BY VOLUME - LOWER:** 5.6% **UPPER:** 17.7% **EXTINGUISHING MEDIA:** Foam, CO<sub>2</sub>, Dry Chemical  
**SPECIAL FIRE FIGHTING PROCEDURES:** Water spray may be used to cool containers exposed to heat or fire to prevent pressure build up. Self-contained breathing apparatus should be used if product is involved in fire.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Closed containers may rupture due to pressure build up from extreme heat or fire.  
**FLAMMABILITY:** No **SENSITIVITY TO STATIC DISCHARGE:** Primarily vapors  
**SENSITIVITY TO IMPACT:** Do not puncture

**SECTION V - REACTIVITY DATA**

**STABILITY:** Stable **CONDITIONS TO AVOID:** High temperatures  
**INCOMPATIBILITY (MATERIALS TO AVOID):** Alkali metals, metallic powders, ferric chloride.  
**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Carbon Dioxide, Hydrochloric Acid, Phosgene and Fluorophosgene.  
**HAZARDOUS POLYMERIZATION:** Will not occur

**SECTION VI - HEALTH HAZARD DATA**

**SYMPTOMS OF EXPOSURE:** INHALATION - At elevated concentrations: feeling of intoxication, restlessness, dizziness and drowsiness, risk of cardiac arrhythmia, risk of asphyxia by lack of oxygen. EYES - Moderate irritation. Skin - Repeated contact: dry & chapped skin, risk of chronic dermatitis. INGESTION - No data available.  
**CARCINOGENICITY:** The ingredients are not listed as a human carcinogen by IARC, ACGIH, NTP, or OSHA.  
**TERATOGENICITY:** N/A **MUTAGENICITY:** N/A **TOXICOLOGICALLY SYNERGISTIC PRODUCT:** N/A  
**MEDICAL CONDITION GENERALLY AGGRAVATED BY EXPOSURE:** None known  
**EMERGENCY AND FIRST AID PROCEDURES:** INHALATION - Remove from exposure, seek medical attention if signs/symptoms persist.  
**SPLASH - (SKIN)** Wash affected area with soap and water, remove contaminated clothing, seek medical attention if irritation persists.  
**SPLASH - (EYES)** Flush immediately with water for 15 minutes, seek medical attention if irritation persists.  
**INGESTION -** Do NOT induce vomiting, rinse mouth with water, seek medical attention.

**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Remove all sources of ignition. Ventilate area. Prevent from entering a watercourse. Use an inert absorbent material and non-sparking type tools.  
**WASTE DISPOSAL METHOD:** Dispose of in accordance with local, state and federal regulations. Do not incinerate closed containers.  
**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Do not store above 120° F (49° C). Do not store or use near heat, sparks or flame.  
**OTHER PRECAUTIONS:** Do not get in eyes. Do not breathe vapors. Avoid skin contact. Do not take internally. Smoking while using this product must be strictly prohibited.

**SECTION VIII - CONTROL MEASURES**

**RESPIRATORY PROTECTION:** In areas with poor ventilation, use a NIOSH approved Organic Vapor Cartridge Respirator. For concentrations above the TLV (as defined in Section II), use a positive air supplied respirator.  
**VENTILATION:** All application areas should be adequately ventilated in order to keep the items in SECTION II below their exposure limits.  
**PROTECTIVE GLOVES:** Chemical resistant gloves such as Neoprene or Nitrile rubber.  
**EYE PROTECTION:** Safety glasses with side shields are recommended to prevent eye contact.  
**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Chemical resistant apron (rubber) is recommended to prevent skin contact. Eye wash fountain and safety shower.  
**WORK / HYGIENIC PRACTICES:** Avoid prolonged or repeated contact. Do not breathe vapors. Wash contaminated clothing prior to reuse.

**SECTION IX - DISCLAIMER**

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE SO. NOTHING CONTAINED HEREIN CONSTITUTES A SPECIFICATION NOR IS IT INTENDED TO WARRANT SUITABILITY FOR THE INTENDED USE.

IT IS A VIOLATION OF FEDERAL LAW TO SELL, DISTRIBUTE, OR OFFER TO SELL OR DISTRIBUTE, ANY AEROSOL HYDROCHLOROFLUOROCARBON CONTAINING CLEANING FLUID FOR ELECTRONIC AND PHOTOGRAPHIC EQUIPMENT TO ANYONE WHO IS NOT A COMMERCIAL USER OF THIS PRODUCT. THE PENALTY FOR VIOLATING THIS PROHIBITION CAN BE UP TO \$25,000 PER UNIT SOLD. INDIVIDUALS PURCHASING SUCH PRODUCTS MUST PRESENT PROOF OF THE COMMERCIAL STATUS IN ACCORDANCE WITH §82.68(c).