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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE® Nonflammable Electrical Contact Cleaner Product type: Cleaner Company address: Henkel Corporation 1001 Trout Brook Crossing Rocky Hill, Connecticut 06067	Item No. : 1174633 / IDH No. 1174633 Region: United States Contact Information: Telephone: 860.571.5100 Emergency telephone: 860.571.5100 Internet: www.loctite.com
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2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous components</u>	<u>%</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER</u>
Decafluoropentane 138495-42-8	30-60	None	None	AEL- 200 ppm 8 & 12 hour TWA. 400 ppm ceiling.
1,1,1,2-Tetrafluoroethane 811-97-2	30-60	None	None	AEL- 1000 ppm 8 & 12 hour TWA. WEEL 1000 ppm 8 & 12 hour TWA (AIHA), 1000 ppm TWA, (WEEL) None
Trans-Dichloroethylene 156-60-5	10-30	None	None	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Aerosol Liquid
Color: Colorless
Odor: Characteristic

HMS:

HEALTH: 2
FLAMMABILITY: 0
PHYSICAL HAZARD: 1
Personal Protection: See Section 8

WARNING: CONTENTS UNDER PRESSURE.
 MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
 HARMFUL IF INHALED.

Relevant routes of exposure: Inhalation, Eye contact, Skin contact

Potential Health Effects

Inhalation: Vapors and mists will irritate the respiratory tract and nasal passages. Exposure to high doses may cause central nervous system depression. Such doses may also cause adverse effects in the liver, kidneys, and lungs. Extreme overexposure may result in unconsciousness and possibly death. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Skin contact: Repeated contact may cause skin irritation Prolonged or repeated contact has caused severe dermatitis including blisters, cracking, edema and redness.

Eye contact: Liquid or vapor can cause moderate to severe irritation.

Ingestion: Not expected under normal conditions of use. Harmful if swallowed.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders. Kidney disorders.

See Section 11 for additional toxicological information.

4. FIRST AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
Skin contact:	Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. If skin irritation persists, call a physician.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Obtain medical attention.
Notes to physician:	Chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmia may occur. Careful consideration of this potential adverse should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

5. FIRE-FIGHTING MEASURES

Flash point:	Not flammable by flame extension method.
Flashback:	This product exhibits no flashback when tested for flame extension.
Autoignition temperature:	Not determined
Flammable/Explosive limits-lower %:	Not applicable
Flammable/Explosive limits-upper %:	Not applicable
Extinguishing media:	Foam, dry chemical or carbon dioxide.
Special fire fighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Water should be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
Unusual fire or explosion hazards:	Closed containers may explode when exposed to extreme heat.
Hazardous combustion products:	Irritating organic fragments. Oxides of carbon. Halogenated compounds.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:	Do not allow material to contaminate ground water system.
Clean-up methods:	Remove all ignition sources. Maintain good ventilation for large spills. Soak up with inert absorbent. Store in a closed container until ready for disposal.

7. HANDLING AND STORAGE

Handling:	Keep away from heat, spark and flame. Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mist. Wash thoroughly after handling. Wash thoroughly after handling. Do not puncture or incinerate containers.
Storage:	Keep in a cool, well ventilated area. Keep container closed.
Incompatible products:	Water, alkalis, oxidizing agents, reactive metals. Strong acids or bases.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Skin protection:	Chemical resistant, impermeable gloves. Impervious clothing

Eye/face protection:

Safety goggles or safety glasses with side shields.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Aerosol Liquid
Color: Colorless
Odor: Characteristic
Vapor pressure: <1 mmHg @ 20°C (68°F)
pH: Not applicable
Boiling point/range: 75°C (155°F)
Melting point/range: Not applicable
Specific gravity: 1.35 at 20 deg. C
Vapor density: Heavier than air
Evaporation rate: Not available
Solubility in water: Slight
Partition coefficient (n-octanol/water): Not available
VOC content: 60%; 805 grams/liter

10. STABILITY AND REACTIVITY

Stability: Stable at normal conditions
Hazardous polymerization: Will not occur.
Hazardous decomposition products: Hydrogen halides Oxides of carbon.
Incompatibility: Strong acids and strong bases. Oxidizing agents. Light and/or alkaline metals.
Conditions to avoid: Heat, flames and sparks. Storage with incompatible materials.

11. TOXICOLOGICAL INFORMATION

Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Decafluoropentane 138495-42-8	No	No	No
1,1,1,2-Tetrafluoroethane 811-97-2	No	No	No
Trans-Dichloroethylene 156-60-5	No	No	No

Literature Referenced Target Organ & Other Health Effects

Hazardous components	Health Effects/Target Organs
Decafluoropentane 138495-42-8	Central nervous system
1,1,1,2-Tetrafluoroethane 811-97-2	Cardiac, Central nervous system, Irritant, Respiratory, Skin
Trans-Dichloroethylene 156-60-5	No data

12. ECOLOGICAL INFORMATION

Ecological information:

No specific studies have been conducted by Henkel on the ecotoxicity or environmental fate of this material; however, commonly available data on the material indicate that uncontrolled releases to soil, groundwater, or surface waters could entail acute and/or chronic ecological effects, depending on the quantity and concentration of such releases. Releases of volatile components to the atmosphere are not believed to entail significant ecological consequences provided such releases are within the exposure levels set forth in this document. Accordingly, all appropriate measures should be taken to avoid uncontrolled releases to the environment, and any spills or other uncontrolled releases which may occur should be contained and cleaned up immediately in accordance with Section 6.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Depressurize cans. Do not incinerate. Dispose of in accordance with Federal, State and local regulations.

EPA hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR):

Proper shipping name: Aerosols, non-flammable
Hazard class or division: 2.2
Identification number: UN 1950
Packing group: None
Exceptions: Aerosols, not more than 1 L - Consumer Commodity ORM-D

International Air Transportation (ICAO/IATA):

Proper shipping name: Aerosols, non-flammable
Hazard class or division: 2.2
Identification number: UN 1950
Packing group: None

Water Transportation (IMO/IMDG):

Proper shipping name: Aerosols, Non-flammable
Hazard class or division: 2.2
Identification number: UN 1950
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 5 (a) (2) SNUR: 1,1,1,2,2,3,4,5,5,5-DECAFLUOROPENTANE (CAS# 138495-42-8) is controlled by TSCA Section 5, Significant New Use Rule (SNUR; 40 CFR 721.5645) The approved uses are: precision and general cleaning, carrier fluid, displacement drying, printed circuit board cleaning, particulate removal and film cleaning, process medium, heat transfer fluid (dielectric and non-dielectric), and test fluid. Processors and users of this substance must also comply with the applicable general SNUR requirements set forth in 40 CFR 721 subpart A, including export notification requirements if applicable (40 CFR 721.20), and the applicable record keeping requirements set forth at 40 CFR 721.125.

TSCA 12 (b) Export Notification: Decafluoropentene (CAS# 138495-42-8).

CERCLA/SARA Section 302 EHS: None above reporting de minimus.
CERCLA/SARA Section 311/312: Immediate Health Hazard, Pressure
CERCLA/SARA 313: None above reporting de minimus.

California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Domestic Substances List.
WHMIS hazard class: A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 15

Prepared by: Lou Fabrizio, Senior Health & Regulatory Affairs Specialist

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