



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number 709
Product name **Electronic Contact Cleaner**
Effective date 04-Feb-2009
Company information Claire Mfg.
1005 Westgate
Addison, IL 60101 United States
Company phone General Assistance 630-543-7600
Emergency telephone US 800-424-9300
Emergency telephone outside US 703-527-3887
Version # 04
Supersedes date 13-Nov-2007

2. Hazards Identification

Emergency overview FLAMMABLE
CONTENTS UNDER PRESSURE. Aerosol. Pressurized container may explode when exposed to heat or flame. Harmful in contact with eyes. Prolonged exposure may cause chronic effects.

Potential health effects

Eyes Contact may irritate or burn eyes. Eye contact may result in corneal injury.

Skin Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Prolonged inhalation may be harmful.

Ingestion Exposure by ingestion of an aerosol is unlikely. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause delayed lung damage.

Target organs Central nervous system. Respiratory system.

Chronic effects Conjunctiva. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. May cause delayed lung damage.

3. Composition / Information on Ingredients

Components	CAS #	Percent
n-Pentane	109-66-0	30 - 40
Isohexane	107-83-5	20 - 30
Cyclohexane	110-82-7	15 - 20
Aliphatic Petroleum Solvent	64742-89-8	3 - 5
Carbon Dioxide	124-38-9	3 - 5
Non-hazardous and other components below reportable levels		2.5 - 10

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin contact Wash off with warm water and soap. Get medical attention if irritation develops or persists.

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Ingestion

Have victim rinse mouth thoroughly with water. Get medical attention immediately. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. Fire Fighting Measures

Flammable properties Not a fire hazard. The product is not flammable.

Extinguishing media

Suitable extinguishing media Foam. Dry chemical. Carbon dioxide (CO2). Do not use water.

Protection of firefighters

Protective equipment and precautions for firefighters Containers should be cooled with water to prevent vapor pressure build up.

6. Accidental Release Measures

Methods for containment Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable.

Methods for cleaning up Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

7. Handling and Storage

Handling Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Use only with adequate ventilation. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure.

Storage Level 3 Aerosol.
Contents under pressure. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Store in cool place. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Exposure limits**ACGIH**

Components	CAS #	TWA	STEL	Ceiling
n-Pentane	109-66-0	600 ppm	Not established	Not established
Isohexane	107-83-5	500 ppm	1000 ppm	Not established
Cyclohexane	110-82-7	100 ppm	Not established	Not established
Carbon Dioxide	124-38-9	5000 ppm	30000 ppm	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
n-Pentane	109-66-0	1000 ppm	Not established	Not established
Cyclohexane	110-82-7	300 ppm	Not established	Not established
Carbon Dioxide	124-38-9	5000 ppm	Not established	Not established

Personal protective equipment

Eye / face protection Wear chemical goggles.

Skin protection Wear appropriate chemical resistant gloves.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

9. Physical & Chemical Properties

Appearance Compressed liquefied gas.

Boiling point 143.6 °F (62.2 °C) estimated

Color Clear.

Flammability (HOC)	43.3048 kJ/g estimated
Flash back	No
Flash point	-40F (Concentrate)
Form	Aerosol.
Odor	Characteristic.
pH	Not applicable
Physical state	Liquid.
Pressure	55 - 65 psig @ 70F
Solubility	Partially
Specific gravity	0.6769 estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Hazardous decomposition products	May include oxides of oxides of carbon.

11. Toxicological Information

Acute effects	Acute LD50: 3696 mg/kg estimated, Rat, Dermal Acute LC50: 32 mg/l/4h estimated, Rat, Inhalation
Sensitization	Not expected to be hazardous by OSHA criteria.
Reproductive effects	Not expected to be hazardous by OSHA criteria.
Teratogenicity	Not expected to be hazardous by OSHA criteria.

12. Ecological Information

Ecotoxicity	LC50 13.75 mg/L estimated, Fish, 96.00 Hours, EC50 11.78 mg/L estimated, Daphnia, 48.00 Hours, IC50 2497 mg/L estimated, Algae, 72.00 Hours, Components of this product have been identified as having potential environmental concerns.
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13. Disposal Considerations

Disposal instructions	Contents under pressure. Do not puncture, incinerate or crush. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
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14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name	Consumer commodity
Hazard class	ORM-D
Subsidiary hazard class	None
Additional information:	
Packaging exceptions	156, 306
Packaging non bulk	156, 306
Packaging bulk	None

IMDG**Basic shipping requirements:**

Proper shipping name AEROSOLS
Hazard class 2.1
UN number 1950
Additional information:
Packaging exceptions LTD QTY
Item 5F
Labels required None
Transport Category 2

**IATA****Basic shipping requirements:**

Proper shipping name Aerosols, flammable
Hazard class 2.1
UN number 1950
Additional information:
Packaging exceptions LTD QTY
Labels required 2.1



15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Cyclohexane 110-82-7 1.0 % de minimis concentration

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

Cyclohexane: 1000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - Yes
 Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations**U.S. - Pennsylvania - RTK (Right to Know) List**

Carbon Dioxide	124-38-9	Present
Cyclohexane	110-82-7	Environmental hazard
Isohexane	107-83-5	Present
n-Pentane	109-66-0	Present

16. Other Information

HMIS® ratings

Health: 2*
Flammability: 4
Physical hazard: 0

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

MSDS sections updated

Hazards Identification: Emergency overview
Handling and Storage: Storage
Physical & Chemical Properties: Concentrate/Propellant
Transport Information: Agency Name and Packaging Type/Transport Mode Selection