Super Cold 134A

403A

Chills to -51°C (-60°F)

Used for locating thermal intermittence, locate PCB cracks, and cool solder joints. Protects heat-sensitive components during soldering. Also freezes gums and adhesives for easy removal.

- 100% HFC 134A gas
- Ozone safe
- Non-flammable
- Non-conductive
- Zero residue
- Variable valve allows greater user control

Available Sizes

Catalog Number	Sizes Available	Description
403A-285G	285g (10 oz)	Aerosol
403A-400G	400g (14 oz)	Aerosol

Material Safety Data Sheet

Section 1: Product Identification

MSDS Code: 403A - aerosol **Name: Super Cold 134 Plus**

Related Part Numbers: 403A-285G; 403A-400G

Use: For locating thermal intermittents.

Section 2: Hazardous Ingredients

CAS#	Chemical Name	Percentage by weight	ACGIH TWA	Osha Pel	Osha Stel
811-97-2	1,1,1,2 - tetrafluoroethane	>99%	N/e	N/e	N/e

Section 3: Hazards Identification

WHMIS Codes: A

NFPA Ratings: Health 1 Flammability 0 Reactivity 0

HMIS Ratings: Health 1 Flammability 0 Reactivity 0

Eyes: Contact with eye may cause severe tissue damage because of frostbite.

Skin: Contact with liquid or escaping vapor can cause frostbite, indicated by pallor or redness, loss of sensation, and swelling.

Inhalation: Low in toxicity in concentrations up to 40000ppm. When oxygen levels in air are reduced to 12% - 14% symptoms of asphyxiation will occur: loss of coordination, increased pulse rate, and deeper respiration.

Ingestion: Improbable due to low boiling point (-26.2°C, -15°F)

Chronic: Over exposure may cause dizziness and loss of concentration. At higher levels, CNS depression and cardiac arrhythmia may result from exposure.

Section 4: First Aid Measure

Eyes: In event of frostbite, immediately bathe with lukewarm water. Cover and get medial attention.

Skin: In event of frostbite, immediately bathe with lukewarm water. Cover and get medial attention.

Inhalation: Immediately remove from exposure to fresh air. If breathing is difficult, give oxygen. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Get medical aid immediately.

Ingestion: Improbable due to low boiling point (-26.2°C, -15°F)

Section 5: Fire Fighting Measures

Autoignition Temperature >750°C **Flash Point:** N/a **LEL / UEL:** N/a

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

General Information: This material may become flammable when mixed with air under pressure and exposed to strong ignition sources. Containers may explode in the heat of a fire.

Section 6: Accidental Release Measures

Spill Procedure: Avoid breathing vapors. Ventilate area thoroughly.

Section 7: Handling and Storage

Handling: Contents under pressure. Use with sufficient ventilation to keep employee exposure below recommended limits.

Storage: Keep away from direct sunlight, heat, and sources of ignition. Store in a cool, dry, well-ventilated area.

Section 8: Exposure Controls

Routes of entry: Eyes, inhalation, and skin.

Ventilation: Use adequate general or local exhaust ventilation to keep airborne concentrations below exposure limits.

Personal Protection: None required.

Section 9: Physical and Chemical Properties

Physical State:	Aerosol	**Odor:**	Ethereal	**Solubility:**	0.15%	**Evaporation Rate:**	1 (ether=1)		
Boiling Point:	-26.2°C	**Specific Gravity:**	1.22	**Vapor Pressure:**	86 PSI @21°C	**Vapor Density:**	3.5 (Air=1)	**pH:**	7

Section 10: Stability and Reactivity

Stability: Stable at normal temperatures and pressures. Do not mix with oxygen or air above atmospheric pressure. Any source of high temperature, such as lit cigarettes, flames, or welding may yield toxic and/or corrosive decomposition products.

Conditions to avoid: Temperatures over 40°C, ignition sources, and incompatible materials.

Incompatibilities: Alkali and alkaline earth metals, powdered aluminum, zinc, magnesium, and beryllium.

Polymerization: Will not occur.

Decomposition: Decomposition products are hazardous. This material can be decomposed by high temperature (open flames, glowing metal surfaces, etc.) forming hydrofluoric acid and possibly carbonyl fluoride. These materials are toxic and irritating. Contact should be avoided.

Section 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

SARA (Superfund Amendments and Reauthorization Act of 1986, USA, 40 CFR 372.4)

None of the chemicals in this product have a reportable quantity.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45

This product does not contain any chemicals subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

CAA (Clean Air Act, USA)

This product does not contain any class 1-ozone depletors.

This product does not contain any class 2-ozone depletors.

This product does not contain any chemicals listed as hazardous air pollutants.

California Proposition 65 (Chemicals know to cause cancer or reproductive toxicity, May 1, 1997 revision, USA)

This product does not contain any chemicals listed.

Health Canada

Labeling and containers used in this product are listed in compliance with Consumer Chemicals and Container regulations.

Environment Canada

Chemicals in this product are listed on the Domestic Substances List in the Canadian Environmental Protection Act

This product does not contain any ozone depleting substances.

Industry and Science Canada

Labeling, product identity, net quantity declaration, minimum printing type size heights, and packaging of this product is in compliance with the Consumer Packaging and Labeling Act and Regulations. This product is not slack filled in accordance to chapter 4 prohibitions.

RoHS (The restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2004).

This product is RoHS compliant.

Section 16: Other Information

Definitions: N/a = not applicable, n/e = not established

Disclaimer: This material safety data sheet is provided as an information resource only. M.G. Chemicals believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with federal, state, and local regulations.