

# Micro•Freeze™ EU & Big•Blast™ EU

Fast, Convenient and Environmentally Progressive

**New!**



Micro•Freeze™ and Micro•Blast™ are drop-in replacements for today's old-style "canned air" and freeze spray aerosols.

- **Totally New Chemistry for Circuit Cleaning and Troubleshooting**
- **F-Gas Rule Compliant**
- **REACH & ELINCS Pre-Registered**
- **Nonflammable for Safety**
- **Available Only from MicroCare**

### General Information

These two products are the latest innovation in freeze sprays and "canned air." They are the first electronics cleaners in the world to feature tetrafluoropropene, an innovative new hydrofluoro-olefin (HFO) propellant with a very low global warming potential (see "Packaging"

notes). Available only in Europe, these products comply with the EU's new regulations to minimize global warming caused by industrial gasses (the "F-Gas rules").

MicroCare's products are excellent choices for trouble-shooting, cleaning and repairing electronics. They can be used on electronics, connectors, medical devices, keyboards, keypads, mechanical parts and hard-to-clean surfaces.

The propellant is double-filtered to 0.2 microns of purity. The products are noncorrosive, residue-free and, unlike less expensive products, are not flammable which enhances safety.

### Freeze Sprays

Micro•Freeze™ chills components instantly. It meets the mil spec target of -40°C and can get as low as -60°C under optimal conditions. Use Micro•Freeze to cool components, to test them for stress fractures and for troubleshooting intermittent failures on PCBs. This product is StatZAP™ compatible (#MCC-ZAP), for improved ESD control.

### Canned Air

Micro•Blast™ delivers reliable cleaning of dry contaminants. Nonabrasive Micro•Blast quickly removes dust, lint, dirt and other dry material from electronics and mechanical devices. The cans are equipped with a high-flow valve which enables significantly more "pushing power" than traditional aerosols.



## MicroCare Europe bvba

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MicroCare is  
 ISO 9001:2000  
 Registered

### Product Details

Chemical Family	Tetrafluoropropene HFO
	(CAS #1645-83-6; ELINCS #471-480-0)
Aroma	Slight, ethereal
Boiling Point	-19° C
Evaporation Rate	>>1
Vapor Pressure @ 20°C	4220 hPa

Micro•Freeze will deliver circuit chilling to as low at -40°C/-40°F under all conditions and as low as -60°C/-76°F under optimal conditions with a skilled operator.

### Health, Safety & Environmental Data

Toxicity Rating (ppm, 8-hr. TWA, REL)	1000 (Manufacturer specified)
Flashpoint (TCC)	None
Safety Rating	Nonflammable (ASTM ME-681, EU A-11)
NFPA Ratings	Health: 1; Fire: 0; Reactivity: 1
Ozone Impact	Zero
Non-Exempt Organic Content (g/L)	Zero
Global Warming Rating (100 yr)	6
REACH & ELINCS Pre-Registered (See MSDS)	Yes
RoHS and WEEE Compliant	Yes
F-Gas Compliant	Yes

### Packaging

Micro•Freeze™ Circuit Chiller	300 g MCC-FRZ107
Big•Blast™ Canned Air	300 g MCC-AIR107

These two products replace all earlier versions of these products packaged with HFC-134a. Packaged in cases of twelve (12) cans per box. Shelf life is unlimited. The propellant in these aerosols is one of the first F-gas rule compliant propellants, tetrafluoropropene (CAS#1645-83-6; ELINCS#471-480-0). Tetrafluoropropene is a drop-in replacement for HFC-134a (the industry standard for these products) and/or HFC-152b. It has a global warming impact of six (as opposed to a rating of 1,400 of HFC-134a) and does not contain smog-causing VOCs. The tetrafluoropropene formulation is protected under patent-pending status in the U.S.

Importantly, these products do not require the extra-strength high-pressure aerosol cans competing products use, and so are easier and less expensive to ship.

Micro•Freeze is compatible with the StatZAP™ dispenser, #MCC-ZAP, to minimize damage from static charges. Big•Blast is not StatZAP™ compatible.

### Product Notes

AVAILABILITY. This product is available from MicroCare distributors across Europe. Contact your local distributor at [www.MicroCare.com](http://www.MicroCare.com) for details.

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