

Bioact® EC-7M™ Flux Remover Technical Summary

General Information

Bioact® EC-7M™ is a patented cleaner based upon biodegradable citrus terpenes. Formulated to Micro Care specifications as a room-temperature defluxer by Petroferm, Inc., it is completely ozone-safe. Technicians like the convenient cleaning power of EC-7M while engineers choose it because of the superior results obtained at the lowest possible cost. Overall, Bioact EC-7M is an excellent ozone-safe cleaning choice.

Applications

Bioact EC-7M cleans all types of electronics: through-hole boards, surface mount assemblies, cables, connectors, discrete components and even bare boards. It removes flux residues, ionics, greases, oils and other contaminants. It also is extremely cost-effective as a screen cleaner and for removing some conformal coatings.

This powerful cleaner is the most versatile of the ozone-safe solvents, and it works well on rosin fluxes, synthetic fluxes, water-soluble fluxes and even some "no-clean" solders. Polar and non-polar contaminants are removed with non-corrosive EC-7M, as well as labels, tape residues and many glues. The solvent has passed the IPC Phase II benchmark tests.

EC-7M is the only terpene cleaner that is 100% volatile so water rinsing is not required. Solvent consumption is minimized because terpenes evaporate more slowly than old-style cleaners. For faster drying, use compressed air or absorb it into static-safe swabs and sponges. The cleaner has been formulated to minimize carbonic acid formation which improves the accuracy of ionic tests. Overall, Bioact can reduce benchtop cleaning costs 50% or more.

**Bioact® EC-7M™ Is
Your Best Choice for
Ozone-Safe
Electronics Cleaning**

Powerful But Non-Toxic

No Rinsing

**Works on All Types
of Fluxes**

Extremely Economical



Compatibility

Compatibility testing is recommended. The cleaner is safe for most types of plastics, cured epoxies, flex laminates, solder masks, metals and alloys. Recommended elastomers are Nitrile, Teflon and Viton. It is not suited for use on natural rubbers or silicones.

Health & Safety

Terpene-based Bioact EC-7M is essentially non-toxic. The cleaner's distinctive citrus aroma is no harmful. While no Threshold Limit Values (TLV) have been established all the ingredients are on the "Permitted" list issued by the Food

and Drug Administration. None of the ingredients are listed by NTP, IARC or OSHA as known or suspected carcinogens.

Bioact EC-7M is combustible, so good chemical management requires that users be trained in its safe and efficient use. To reduce costs, conserve solvent and minimize hazards it should only be used in cleaning machines designed for combustible solvents or with the Trigger Grip™ system.

Environmental

EC-7M contains no chlorine and has an Ozone Depletion Potential (O.D.P.) of zero, including any propellant. Produced from renewable resources, it is totally biodegradable. Some regulatory agencies classify EC-7M as a Volatile Organic Compound (VOC); check local regulations for details.

None of the materials in this product are subject to environmental warning labels (U.S. Clean Air Act, 1990, Section 611). When local regulations permit, Micro Care encourages recycling the dispensers and packaging materials for maximum environmental protection.



Bioact® EC-7M™ Flux Remover

Selected Technical Data

General Product Data

Product	Bioact EC-7M	Boiling Point	172°C / 340°F
Primary Use	Flux Remover	Freezing Point	<-40°C / -40°F
Chemical Family	d-Limonene Terpene	Stability Over Temperature	No Separation
Appearance	Pale Orange Liquid	Military Approvals	IPC Phase II
Odor	Citrus		

Solvency & Cleaning Data

K _p Value	70 (est)	Specific Gravity	0.84 @ 25°C
Percent Volatile	100%	Dielectric Constant	2.3
Surface Tension	33 dynes/cm	Viscosity	0.8 cp
pH	Neutral	Water Solubility	Insoluble
Evaporation Rate	<0.7 (Water = 1)	Vapor Density	>3.0 (Air = 1)

Health, Safety & Environmental Data

Flashpoint (TCC)	62°C / 143°F	Flammability Rating	Combustible
TLV or PEL	None Listed	NFPA Ratings: Health:	1
Ozone Impact (Inclg. Propellant, if Any)	Zero	Fire:	2
Propellant (Pressurized Containers Only)	HFC-134a	Reactivity:	0
Organic Content	845 g/l	TSCA Listed	Yes

NOTE: Bioact EC7M has a distinctive citrus aroma. While the aroma is not toxic in any way, Micro Care recommends the use of a Trigger Grip equipped with a Sto-Flo brush (#MCC-RBNB2) to minimize the aroma and to avoid skin contact.

General Compatibility with Plastics and Elastomers

LITTLE OR NO EFFECT			MODERATE EFFECT		NOT RECOMMENDED	
Nylon	Polyallomers	FR-4 Board	Viton	Acrylics	Polystyrenes	Butyl Rubber
Nitrile	Polysulfones	Vinyl	Polyethylenes	ABS	Polycarbonates	Silicones
Epoxies	Polypropylene	Teflon	Urethanes	Buna N	Natural Rubber	Neoprene
	Phenolic Resins		Viton	PVC	Polycarbonates	

Bioact EC-7M Packaging and Shipping

Availability

PART #	PACKAGING	WEIGHT (K)	WEIGHT (#)
MCC-EC7M	Aerosol	0.28 k	0.62 #
MCC-EC7MG	Minipail	2.70	6.00
MCC-EC7MP	Pail	15.80	35.00
MCC-EC7MD	Drum	176.90	390.00

Distributed Locally by:

SHIPPING: MCC-EC7M is shipped twelve (12) cans per carton. Packing instructions for ground shipments are "Consumer Commodity ORM-D". Air shipments are classified as "Aerosols, Flammable, N.O.S. (Terpene Hydrocarbons), Class 2.1, Flammable Gas Limited Quantity, UN-1950, Packing Instructions Y203 LTD QTY". Contact Micro Care when shipping bulk (unpressurized) quantities.

NOTES: Micro Care publishes this information from sources believed to be accurate. This data is intended for persons having the technical skills to evaluate and use the data properly. Micro Care does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred using it. Micro Care's liability is limited to the replacement of this product. Product specifications are subject to change without notice.

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