



Technical Data Sheet

FREH Freezer

Product description

Electrolube Freezer, **FREH**, is a powerful non-corrosive refrigerant for use as a rapid and safe method of cooling small components, particularly in electrical and electronic equipment, and to detect faulty soldered joints and overheating components.

FREH contains a non-flammable, fluorinated refrigerant that combines the low GWP (global warming potential) of hydrocarbons with the ultra-low MIR (maximum incremental reactivity) and POCP (photochemical ozone creation potential) of hydrofluorocarbons.

Features

- Non-toxic, corrosion inhibiting refrigerant.
- The refrigerant lowers the temperature down to at least -50°C in a matter of seconds. The time and final temperature is dependent on size, material and operating conditions of component being cooled.
- Prevents component damage from overheating during soldering.
- Extension tube aids access to components in confined and 'difficult to reach' areas.
- Saves time - 'dry' joint location involves measuring electrical resistance at each joint in a faulty circuit, which is both time consuming and not always conclusive due to parallel resistance paths making measurement of true joint resistance difficult, if not impossible. **EFREH** can eliminate this time consuming method.

Typical properties

Colour:	Colourless
Liquid density:	1.17 g/ml
Boiling Point:	-19°C
GWP (vs. CO ₂ , 100 year ITH)	6
Photochemical Reactivity (MIR gO ₃ /g VOC)	0.09
Photochemical Ozone Creation Potential (POCP)	6.4
Flammability	Non-flammable

Directions for use

Switch on and set up equipment so that the fault conditions caused by the 'dry' joint exist. Spray each joint in the circuit with the end of the extension tube approximately one inch from the joint. Spraying should continue until a layer of 'frost' appears on the joint, usually about 2 seconds. When the 'dry' joint is frozen, the fault condition will disappear but will return as the temperature of the joint returns to normal ambient.

A similar procedure is adopted for tracing faulty components that are overheating.

If it is necessary to cool a component for any length of time, a piece of plastic foam should be wrapped around the component and then saturated with **FREH**. If the foam is periodically re-saturated the temperature of the component may be held below 0°C as long as required.

Fractured copper tracks on PCBs can be located by spraying over the suspect area and the fracture will appear as the copper tracks contract and part.

Packaging

<u>Description</u>	<u>Order Code</u>	<u>Shelf Life</u>
200ml Aerosol	EFREH200	48 months

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