

FREH **Freezer Spray**

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. It can also be used for the testing of thermostats and other thermosensitive components and to detect faulty soldered joints and overheating components. FREH contains a non-flammable, fluorinated propellant 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.

- Non-flammable, environmentally friendly propellant; Low GWP, MIR and POCP values
- Cools rapidly down to at least -50°C; extension tube aids access to concealed components
- Prevents component damage due to overheating during soldering
- Non-flammable; can be used to find faulty solder joints and overheating components

Typical Properties

Colour	Colourless
Flash Point (°C)	None
Boiling Point (°C)	-19
GWP (vs. CO ₂ , 100yr ITH)	6
Photochemical Reactivity (MIRg O ₃ /gVOC)	0.09
Photochemical Ozone Creation Potential (POCP)	6.4

Description	Packaging	Order Code	Shelf Life
FREH Spray	200ml Aerosol	FRE200H	48 Months

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.

An alternative test method is to spray suspected faulty components until a good level of frost has been formed. The component which "defrosts" the most rapidly is the component which is overheating or faulty. 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.

Revision 1: Jan 2014

Copyright Electrolube 2013

All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification.

Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

Ashby Park, Coalfield Way,
Ashby de la Zouch,
Leicestershire LE65 1JR
T +44 (0)1530 419 600
F +44 (0)1530 416 640
BS EN ISO 9001:2008
Certificate No. FM 32082