

## HFFR

### Hexane-Free Flux Remover

#### DESCRIPTION

**HFFR** is a fast-drying, n-hexane free solvent cleaner specially formulated for the quick and efficient removal of flux residues present after soldering. Designed to eliminate the use of ozone depleting solvents such as CFC 113 and hazardous materials such as n-Hexane, it combines excellent cleaning performance of a wide range of flux residues with fast evaporation rates.

READ ENTIRE TECHNICAL BULLETIN BEFORE USING THIS PRODUCT

#### FEATURES AND BENEFITS

- n-Hexane free, non-halogenated cleaning solvent; safer for the operator and the environment
- Removes flux residues after soldering; ideal for manual PCB cleaning applications
- Dries without leaving any residue; leaves a clean, dry surface in one cleaning step
- Brush aerosol version available; removes stubborn deposits

#### APPROVALS

Standard	Status
RoHS Compliant (2015/863/EU)	Yes

#### PRODUCT INFORMATION

For available packaging sizes please visit:

[electrolube.com](http://electrolube.com)

### PHYSICAL PROPERTIES

Category	Results
<b>Typical Properties</b>	
Density @ 20 °C (g/mL)	0.78
Flash Point (°C)	7 (Estimate)
Inhalation Toxicity (ppm)	300
Residue on Evaporation (ppm)	<1
Evaporation Rate	11 (ether = 1)

### APPLICATION GUIDELINES

Suitable for removal of a range of flux residues after soldering. Product contains flammable solvent so do not spray onto live electrical equipment or other sources of ignition. Immerse surface to be cleaned or spray onto surface to excess and allow to evaporate. A brush or foam tipped bud may be used to remove any stubborn deposits. For use on large scale production, HFFR may be used in ultrasonic cleaning equipment which must be adapted for use with flammable liquids.

### ADDITIONAL INFORMATION

#### Shelf Life

Description	Shelf Life
Aerosol with Brush	48 Months
Bulk	72 Months

### SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available.**

### CONTACT INFORMATION

To confirm this document is the most recent version, please contact

**TechnicalSupportTeam@hkw.co.uk**

[www.electrolube.com](http://www.electrolube.com)

<b>North America</b> 109 Corporate Blvd. South Plainfield, NJ 07080, USA 1.800.367.5460	<b>Europe</b> Ashby Park Coalfield Way Ashby de la Zouch Leicestershire, LE65 1JR, UK 44.01530.41960	<b>Asia</b> 8/F., Paul Y. Centre 51 Hung To Road Kwun Tong, Kowloon, Hong Kong 852.3190.3100
--	---	--

Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE . Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

DISCLAIMER: All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. No statement or recommendation shall constitute a representation unless set forth in an agreement signed by officers of seller and manufacturer. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY IS MADE. The following warranty is made in lieu of such warranties and all other warranties, express, implied, or statutory. Products are warranted to be free from defects in material and workmanship at the time sold. The sole obligation of seller and manufacturer under this warranty shall be to replace any noncompliant product at the time sold. Under no circumstances shall manufacturer or seller be liable for any loss, damage or expense, direct, indirect, incidental or consequential, arising out of the inability to use the product. Notwithstanding the foregoing, if products are supplied in response to a customer request that specifies operating parameters beyond those stated above, or if products are used under conditions exceeding said parameters, the customer by acceptance or use thereof assumes all risk of product failure and of all direct, indirect, incidental and consequential damages that may result from use of the products under such conditions, and agrees to exonerate, indemnify, defend and hold harmless MacDermid, Incorporated and its affiliates therefrom. No suggestion for product use nor anything contained herein shall be construed as a recommendation to use any product in a manner that infringes any patent or other intellectual property rights, and seller and manufacturer assume no responsibility or liability for any such infringement.

© 2019 MacDermid, Inc. and its group of companies. All rights reserved. "(R)" and "TM" are registered trademarks or trademarks of MacDermid, Inc. and its group of companies in the United States and/or other countries.