

Introduction

3M™ Novec™ Flux Remover uses advanced 3M solvent technology to remove rosin solder fluxes, waxes and similar contaminants found in electronics manufacturing and repair. It is also effective in removing hydrocarbon, silicone and fluorochemical oils and greases encountered in the maintenance of electronic devices such as electric motors, generators, precision devices and other electromechanical or sensitive equipment. Novec Flux Remover evaporates quickly, and leaves no residue. It is non-corrosive and compatible with most plastics, with the exception of acrylics, polycarbonates, ABS and PS.

Novec Flux Remover is based on a non-flammable, high performance proprietary hydrofluoroether formulation that is non-ozone depleting and does not contain any Hydrochlorofluorocarbons (HCFCs), Hydrofluorocarbons (HFCs), Hazardous Air Pollutants (HAPs) or n-propyl bromide (nPB). This results in an affordable, industrial-strength flux remover, providing a wide margin of workplace safety and a favorable environmental profile.

Features

- Non-flammable
- Fast drying, very low residue
- Low odor
- Non-corrosive
- Non-ozone depleting (No HCFCs)
- Low toxicity (No nPB or HAPs)

Novec Flux Remover can be an effective substitute for many cleaners based on ozone depleting substances such as HCFC-141b, HCFC-225, or nPB. It also offers a greater margin of safety than many nPB-based cleaners or cleaners containing HAPs, such as perchloroethylene. Carbon dioxide is used as the propellant rather than a flammable hydrocarbon or an HFC greenhouse gas.

Environmental, Health and Safety Information

Properties	Novec Flux Remover	HCFC-141b	HCFC-225 ca	nPB	Perchloroethylene
Ozone Depletion Potential - ODP ¹	0.0	0.1	0.03	0.013-0.1	0.0
Global Warming Potential - GWP ²	41	700	180	Low	Low
Hazardous Air Pollutant ³	No	No	No	No	Yes
Exposure Guidelines (ppmV, TWA)	200	500	50	10	25
Margin of Safety ⁴ (MOS)	10	25	2.5	0.5	1.2

¹CFC-11 = 1.0

²GWP-100 year integration time horizon, CO₂ = 1.0

³As defined by the U.S. EPA in the Clean Air Act of 1990

⁴MOS in use = $\frac{\text{Exposure Guideline}}{\text{Assumed 20 ppmV 8hr TWA exposure}}$

Safety and Handling

3M™ Novec™ Flux Remover is nonflammable. When used as directed, in its intended applications, Novec Flux Remover has a wide margin of safety between anticipated exposures and the exposure guideline. Before using this product, be sure to read and follow all precautions and directions for use contained in the product label and Material Safety Data Sheet, which is available from your local 3M representative upon request.

More 3M™ Novec™ Aerosol Cleaners

3M™ Novec™ Contact Cleaner
3M™ Novec™ Electronic Degreaser

Resources

3M™ Novec™ Aerosol Cleaners are supported by global sales, technical and customer service resources, with fully-staffed technical service laboratories in the U.S., Europe, Japan, Latin America and Southeast Asia. Users benefit from 3M's broad technology base and continuing attention to product development, performance, safety and environmental issues.

For additional technical information on 3M™ Novec™ Flux Remover in the United States, call 3M Customer Service, **800 810 8513**.

For information on additional 3M fluids, coatings and other chemical products for the electronics industry, visit our web site at:

www.3M.com/electronics

Product Use: All statements, technical information and recommendations contained in this document are based on tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Warranty and Limited Remedy: Unless stated otherwise in 3M's product literature, packaging inserts or product packaging for individual products, 3M warrants that each 3M product meets the applicable specifications at the time 3M ships the product. Individual products may have additional or different warranties as stated on product literature, package inserts or product **packages. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE.** User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's application. If the 3M product is defective within the warranty period, your exclusive remedy and 3M's and seller's sole obligation will be, at 3M's option, to replace the product or refund the purchase price.

Limitation of Liability: Except where prohibited by law, 3M and seller will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental, or consequential regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.



3M Electronics

3M Center
Building 224-3N-11
St. Paul, MN 55144-1000

www.3M.com/electronics

3M and Novec are trademarks of 3M Company.
Used under license by 3M subsidiaries and affiliates.

Issued: 10/05

© 2005 3M

5049(HB)
60-5002-0093-0