

# No Flash No Flame



## Non-flammable / non-conductive aerosol solvents For mission critical electrical cleaning challenges

3M brings you two aerosol products that meet tough military aviation specs: 3M™ Novec™ Contact Cleaner and new Contact Cleaner/Lubricant. Both are designed to help you make the workplace safer; comply with green initiatives; and cut mission-critical electrical cleaning challenges down to size.

Meets all MIL-PRF 29608A requirements including:

- Cleaning efficiency
- Plastics compatibility
- Non-Flammable
- Low toxicity
- Non ozone-depleting

**Supports U.S. DOD initiatives to procure environmentally preferable products**

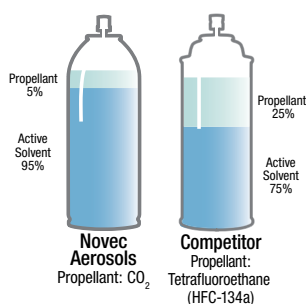
## Tough on soils – easy on people, parts & the environment

Because they are non-corrosive, non-conductive, and penetrate deep into tight clearances, 3M™ Novec™ Contact Cleaner and Contact Cleaner/Lubricant are effective on many aviation cleaning applications, including avionics, electro-mechanical devices, instrumentation, electrical contacts, connectors and more. Just as important, they combine low environmental impact with outstanding safety characteristics.

### With 3M™ Novec™ Aerosols, you get more cleans per can!

Every Novec aerosol product can contains over 95% active solvent – for more cleaning power and more cleans per can. Only 5% of the can contents is devoted to the propellant, which is ordinary CO<sub>2</sub>.

Compare this to many competitive aerosols, which often contain 75% or less active solvent in conjunction with propellants such as tetrafluoroethane (HFC-134a) – a formulating technique these products require in order to be defined as “nonflammable” and/or to achieve VOC limitations.



### Environmental, Health and Safety Information

Properties	Novec Contact Cleaner	Novec Contact Cleaner/Lubricant	Previous MIL-PRF 29608
Ozone Depletion Potential <sup>1</sup> (ODP)	None	None	0.10
Composite Global Warming Potential <sup>2</sup> (GWP)	297	71	5000
Flashpoint	None	None	None
Exposure Guideline (ppmV, 8 hr time weighted average)	750	200	500

<sup>1</sup>CFC-11 = 1.0, MIL-PRF 29608 based on ODP of HCFC-141b    <sup>2</sup>GWP-100 year integration time horizon, CO<sub>2</sub> = 1.0

### Product Information

Properties	Novec Contact Cleaner	Novec Contact Cleaner/Lubricant
NSN (National Stock Number)	6850-01-534-2919	6850-01-597-1998
3M ID Number	98-0212-3293-3	98-0212-3598-5
Typical Uses	Removes fluorinated oils and greases, light oils and silicones, dusts and particulates from sensitive systems and components. Fast drying with no residue.	Quickly cleans sensitive electrical/electronic equipment and leaves a thin protective silicone coating to help prevent excessive wear, abrasion and corrosion.

### Qualifications and Approvals

Specification/Approval	Novec Contact Cleaner	Novec Contact Cleaner/Lubricant
MIL-PRF 29608A	Class C – Electrical Contact Cleaning Compounds	Class L – Electrical contact cleaning and lubricating compounds
Boeing D6-17487	Exterior and general cleaning	
Gulfstream GAS115PC	Solvent compound – cleaner/degreaser	
AMCOM Maintenance Engineering Order #T5470	Cleaning of Army Aircraft Components	
RoHS/WEEE Compliant	Yes	Yes
Meets CA VOC Limits	No	Yes – Silicone-based multi-purpose lubricant
Meets OTC VOC Limits	Yes – Electrical Cleaner	Yes – Silicone-based multi-purpose lubricant
ASTM G72	Oxygen System Cleaning - Autogeneous ignition test	
NASA Handbook, 8060.1C Test 13	Oxygen System Cleaning - Impact test	

### The 3M™ Novec™ Brand Family

The Novec brand is the hallmark for a variety of patented 3M products. Although each has its own unique formula and performance properties, all Novec products are designed in common to address the need for safe, effective, sustainable solutions in industry-specific applications. These include precision and electronics cleaning, heat transfer, fire protection, lubricant deposition and several specialty chemical applications.

3M™ Novec™ Engineered Fluids • 3M™ Novec™ Aerosol Cleaners • 3M™ Novec™ 1230 Fire Protection Fluid • 3M™ Novec™ Electronic Coatings • 3M™ Novec™ Electronic Surfactants

United States	China	Europe	Japan	Korea	Singapore	Taiwan
3M Electronics Markets Materials Division 800 810 8513	3M China Ltd. 86 21 6275 3535	3M Belgium N.V. 32 3 250 7521	Sumitomo 3M Limited 813 3709 8250	3M Korea Limited 82 2 3771 4114	3M Singapore Pte. Ltd. 65 454 8611	3M Taiwan Limited 886 2 2704 9011

**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.



### Electronics Markets Materials Division

3M Center, Building 224-3N-11  
St. Paul, MN 55144-1000  
www.3M.com/novec

Please recycle. Printed in USA.  
© 3M 2011. All rights reserved.  
Issued: 7/11 8141HB  
60-5002-0504-6

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