

3M™ Novec™ Contact Cleaner

Introduction

3M™ Novec™ Contact Cleaner effectively removes fluorinated oils and greases, light oils and silicones, dust and particulates from sensitive electrical and electronic equipment, including connectors, printed circuit boards, electro-mechanical devices, scales, contacts, relays, switches, instrumentation and circuit breakers. Novec Contact Cleaner is compatible with plastics and other materials of construction. Based on proprietary 3M solvent technology, it is non-flammable, non-ozone depleting and contains no HCFCs, HFCs, nPB or HAPs.

- Fast drying, low odor
- Excellent plastics compatibility
- No rinsing and no residues
- Non-corrosive, non-conductive – ideal for electrical or energized components
- Non-flammable
- Low toxicity
- Non-chlorinated
- Exempt from the U.S. EPA's volatile organic compound (VOC) regulations

Plastics Compatibility

| Material | Compatibility | Material | Compatibility |
|----------------------|---------------|----------|---------------|
| ABS | Excellent | PMMA | Excellent |
| Nylon | Excellent | POM | Excellent |
| Lexan®/Polycarbonate | Excellent | PP | Excellent |
| HDPE | Excellent | PS | Excellent |
| CDPE | Excellent | PTFE | Excellent |
| C.E. Phenolic | Excellent | PVC | Excellent |



Environmental, Health and Safety Information

| Properties | Novec Contact Cleaner | HCFC-141b |
|---|-----------------------|-------------------------|
| Ozone Depletion Potential ¹ (ODP) | 0.00 | 0.1 |
| Global Warming Potential ² (GWP) | 297 | 725 |
| Atmospheric Lifetime - ALT (years) | 3.8 | 9.3 |
| Flashpoint | None | None |
| Flammability Range in Air | None | 7.6 - 17.7 ³ |
| Exposure Guideline (ppmV, 8 hr time weighted average) | 750 | 500 |

¹CFC-11 = 1.0

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

³Vol% by ASTM E681-94 @ 100°C

Regulatory Information

| | |
|-----------------------------|---|
| RoHS/WEEE Compliant | Yes |
| NSF Registration | Nonfood Compound Program Listed K2 Reg. #137246 |
| Meets CA VOC Limits | No |
| Meets OTC VOC Limits | Yes – Electrical Cleaner |
| NSN (National Stock Number) | 6850-01-534-2919 |



Physical Properties

| | |
|--|---------|
| Evaporation Rate (relative to n-Butyl Acetate) | 0.10 |
| Surface Tension (dynes/cm ²) | 13.6 |
| Specific Gravity (g/ml) | 1.52 |
| Dielectric Strength | >25 kV |
| Shelf Life | 5 years |

More 3M™ Novec™ Aerosol Cleaners

3M™ Novec™
Contact Cleaner Plus
3M™ Novec™
Electronic Degreaser
3M™ Novec™
Flux Remover

Safety and Handling

3M™ Novec™ Contact Cleaner is nonflammable. When used as directed, in its intended applications, Novec Contact Cleaner 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.

Transportation Classification

Ground: Consumer Commodity ORM-D **Air:** Aerosols, Nonflammable, 2.2, UN1950

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 Novec Contact Cleaner 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/novec

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 |
|--|----------------------------------|----------------------------------|--------------------------------------|------------------------------------|---------------------------------------|--------------------------------------|
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