

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

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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
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

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Electronics Markets Materials Division

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

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