







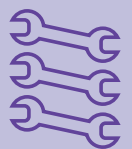



Science.
Applied to Life.™

Clean with confidence.

3M™ Novec™ 73DE Engineered Fluid
for aerospace maintenance and
service applications

The science of aerospace solvent cleaning with 3M™ Novec™ 73DE Engineered Fluid

Applications and Properties:	
 <p>Excellent performance for cleaning soils, oils and greases</p>	 <p>Non-flammable and non-corrosive</p>
 <p>Excellent performance on corrosion inhibiting compound (CIC) removal</p>	 <p>Low in toxicity</p>
 <p>Flexible application methods with pressure pots, sprayers or hand wipes</p>	 <p>Airframe masking not required during simple spray and wipe process</p>
 <p>Enables concurrent work activity on other areas of the aircraft while cleaning occurs*</p>	 <p>No structural rinsing needed</p>

3M™ Novec™ 73DE Engineered Fluid is a cleaning solvent used for heavy-duty aircraft cleaning, corrosion inhibiting compound (CIC) removal and vapor degreasing.

Optimized for difficult cleaning challenges

Because of its low surface tension, Novec 73DE fluid can penetrate tight spaces and thoroughly clean hard-to-reach areas. It evaporates quickly without leaving residue, or can be wiped off without needing structural rinsing. And its high solvency makes it easy to dissolve everything from soils and greases to difficult-to-remove CICs.

Leading-edge cleaning technology

Explore the potential of solvent cleaning with Novec 73DE fluid to save time, reduce costs and improve cleaning efficiency in your operations.

*Subject to appropriate Personal Protective Equipment and ventilation requirements

Tested and proven for aerospace compatibility

3M™ Novec™ 73DE Engineered Fluid conforms with many common ASTM tests for cleaning compatibility, demonstrating its value on a variety of aircraft materials.

Test Name	Test Method #	Novec 73DE Fluid Test Result	Test Comments	Notes
Sandwich Corrosion	ASTM F1110	Conforms	Rating of "1" for all alloys tested	Part of the SAE AMS 1526C test package
Total Immersion Corrosion	ASTM F483	Conforms	Less than 0.01 mg/cm ² weight change of all alloys tested after 24 h immersion	Part of the SAE AMS 1526C test package
Low-Embrittling Cadmium Plate	ASTM F1111	Conforms	Less than 0.01 mg/cm ² weight change of all alloys tested after 24 h immersion	Part of the SAE AMS 1526C test package
Hydrogen Embrittlement	ASTM F519	Conforms	No failures within 150 hours	Part of the SAE AMS 1526C test package
Flash Point (Tag closed-cup)	ASTM D56	Conforms ¹	No flash observed when tested up to initial boiling point	Part of the SAE AMS 1526C test package
Effect on Transparent Acrylic Surfaces	ASTM F484	Does not conform	Visible crazing	Part of the SAE AMS 1526C test package
Effect on Painted Surfaces	ASTM F502	Conforms	No hardness change, no streaking, no discoloration, no blistering	Part of the SAE AMS 1526C test package
Effect on Unpainted Surfaces	ASTM F485	Conforms	No streaking or staining for all alloys tested	Part of the SAE AMS 1526C test package
Effect of Cleaning Agents on Aircraft Engine Materials	SAE ARP 1755B	Conforms	Less than 0.000010 inches of stock loss for all alloys tested	
Stress Corrosion of Titanium Alloys	ASTM F945	Conforms	No evidence of cracking for all alloys tested	
Hot Corrosion Test for Metals	GE Aviation SPM 70-16-80-700-092	Conforms	Less than 0.0001 inches depth of intergranular attack	

¹ Although Novec 73DE fluid does not display a closed cup flash point (and therefore is not a flammable liquid), flammable air-vapor mixtures may form during use or in the event of a spill. Adequate ventilation must be provided to maintain vapor concentrations below the lower explosion limit, LEL. See SDS for details.

Typical CIC removal applications with 3M™ Novec™ 73DE Engineered Fluid



Optimized for MRO use

When planes arrive at an MRO facility for a heavy check, it is a large task to remove and then reapply corrosion inhibiting compounds (CICs) from the aircraft's surface for inspection and repair.

Quick, effective cleaning can help speed up the turnaround process and get the plane back in the air faster – helping save time and money.

Replaces alkaline soap cleaners

Technicians require clean surfaces when inspecting an aircraft for corrosion and or structural integrity. Removing corrosion inhibiting compounds can challenge your aircraft days out of service (DOS) schedule. Cleaning operations typically prevent technicians from performing maintenance in the cleaning work area and reduce applied aircraft maintenance hours.

Novec 73DE fluid is designed to address many of the key challenges posed by traditional alkaline soap cleaners – from the inability to perform concurrent work activity during CIC removal to the need for airframe masking, rinsing and more.

Helps enable concurrent work activity

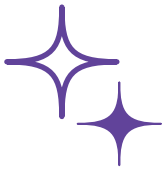
Novec 73DE fluid helps enable maintenance crews to work on multiple parts of the aircraft while cleaning or CIC removal processes are taking place in open, well ventilated spaces such as hangars. For safety purposes, ensure that there is proper ventilation and always use the correct PPE when working with Novec 73DE fluid in enclosed or poorly ventilated areas.

Get performance
and EHS info:



Effective vapor degreasing for landing gear assemblies

Landing gear cleaning is essential during inspection and maintenance periods, and vapor degreasing can be an optimal solution for removing difficult oils from complex part geometries.



Powerful cleaning performance

Vapor degreasing with 3M™ Novec™ 73DE Engineered Fluid provides powerful cleaning performance for landing gear and other aerospace parts.

Because of its low surface tension, it can penetrate tight spaces and thoroughly clean hard-to-reach areas. Then, it evaporates quickly and cleanly, reducing costly “drag out” solvent losses and leaving no residue behind.



A safer replacement for nPB and TCE

Put the safety of your workers first. Novec 73DE fluid has a margin of safety nearly 2000x greater than common solvents such as n-Propyl Bromide (nPB) and 20x greater than trichloroethylene (TCE). Plus, using nPB or TCE can require the need for costly facility upgrades and higher levels of personal safety equipment.



A more sustainable alternative to HFCs

In addition, Novec 73DE fluid has a much lower global warming potential (GWP) than other conventional solvents such as hydrofluorocarbons (HFCs) that have high global warming potential.

Choose a vapor degreasing solution
for your business and your people.

[3M.com/NovecCleaning](https://www.3M.com/NovecCleaning)

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