



# Aculon 73DE Offset

## Product Information

**Aculon 73DE Offset** is a fluorinated solvent blend designed for heavy-duty vapor degreasing or immersion cleaning applications. The fluid features high solvency, low surface tension, non-flammability and fluid stability. Vapor degreasing with Aculon 73DE fluid can also help save time and money over aqueous cleaning by offering faster cycle times, lower energy usage and improved cleaning of parts with complex geometries.

### Features and Applications

- For use in vapor degreasing and immersion cleaning.
- High solvency and low surface tension.
- Effective in cleaning heavy greases, oils, waxes, silicones, and non-polar flux residues.
- Easy maintenance and use in a vapor degreaser with stable bath composition during extended use.
- Non-flammable and low in toxicity.
- Environmentally sustainable with low global warming potential (GWP) and 0 ozone depletions potential (ODP).
- Replacement for Novec 73DE, nPB, TCE, ozone depleting HCFCs and high GWP HFCs.
- Faster throughput, lower energy usage and improved cleaning of parts compared to aqueous cleaning.
- Effective for lubricant deposition applications where increased solvency is desired.

Solids	Solvent	Color
none	Fluorosolvent, t-DCE	Clear/ Colorless

### Physical Properties

(all values @ 25°C unless otherwise specified)

Viscosity*	<1 cp
Boiling Point of Solvent	48°C
Heat of Vaporization (@boiling point)	54.2 cal/g
Specific Gravity	1.28 g/ml
Surface Tension	19.9 dynes/cm
Kauri-Butanol Value	83
Vapor Pressure	263 mm/Hg @20°C
Shelf Life	2 Years (Unopened container)

The technical information and data above should be considered representative or typical only and should not be used for specification purposes.

### Regulatory Status

Due to its favorable health and environmental properties, trans-1, 2-dichloroethylene (t-DCE) is subject to less stringent regulations in the areas noted compared to the other chlorinated solvents. The t-DCE content may be subject to VOC regulations and reporting requirements if t-DCE is emitted into water or if a spill of 1176 lbs or more of Aculon 73DE fluid occurs. t-DCE is not considered a Hazardous Air Pollutant (HAP).

## Environmental And Safety Properties

Ozone Depletion Potential-ODP	0.00
Global Warming Potential	47
Flashpoint	None
VOC Designation	Yes
Regulated Quantity for Accidental Release	1000 lbs
Regulated if Emitted into Water	Yes
Hazardous Air Pollutant	No
Annual Reporting (EPCRA 313) (SARA)	No
OSHA List of toxins/carcinogens	No

<sup>1</sup>GWP 100-year integrated time horizon (ITH), IPCC 2013

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## Safety Profile

Exposure Guideline (ppmv) <sup>1</sup>	100/200
Estimated Exposure (ppmv)	10
Margin of Safety <sup>2</sup>	20

<sup>1</sup>Aculon 73DE is comprised of 2 components. The values shown are for each component: HFE-7300 / t-DCE

<sup>2</sup>Published exposure guideline (8 hour TWA, ppmv) divided by estimated exposure level of 20 ppmv for vapor degreasing.

Margin of Safety is calculated by exposure guideline divided by exposure. The larger the safety margin, the safer the product in its intended use.

## Aerospace Materials Compatibility

Tested for Aircraft Exterior Surface Cleaner Compatibility (AMS 1526B)

Test Description	ASTM Test Method	Test Results
Sandwich Corrosion	F1110	Passes
Effect on Painted Surfaces	F502	Passes
Hydrogen Embrittlement	F519	Passes
Effect on Unpainted Surfaces	F485	Passes
Total Immersion Corrosion	F483	Passes
Low-Embrittling Cadmium Plate	F1111	Passes
Flash Point	D56	Passes
Acrylic Stress Cracking	F484	Does not Pass
Stress Corrosion of Titanium Alloys	F945	Passes

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## Compatibility with Materials

Plastics	Compatible	Acetal, Epoxy, Nylon, PEEK, Polyester, Polyethylene, Polypropylene, PTFE
	Incompatible	ABS, Polystyrene, Acrylic, Polycarbonate
Elastomers	Compatible	DuPont Kalrez Perfluoroelastomers, Butyl Rubber, Parfluor Perfluoroelastomers, Viton Fluoroelastomers, Polyurethane
	Incompatible	Silicone, Fluorosilicone
Metals	Compatible	Copper, Brass, Stainless Steel, Magnesium, Titanium, Aluminum, Carbon Steel, Cadmium
	Incompatible	

Not a complete list. Aculon 73DE fluid is a high solvency cleaning fluid. It is compatible with most metals and solvent resistant plastics. Parts containing solvent-sensitive plastics and elastomeric materials should be evaluated prior to cleaning. The technical information and data above should be considered representative or typical only and should not be used for specification purposes. Data compiled from published information.

## Packaging and Availability

Aculon 73DE Offset fluid may be ordered in the following container sizes:

- 55-gallon drum (250 kg); 5-gallon pail (20 kg); 1-gallon bottle (5.4 kg)

### **Safety, Handling, Storage:**

Aculon 73DE Offset fluid is nonflammable and does not exhibit flammability characteristics under normal operating and storage conditions. This fluid is highly resistant to thermal breakdown and hydrolysis in storage and during use. Store in a cool (<25°C) and dry area and keep away from direct sun light. See this product's SDS for proper handling and fire hazard data. When stored properly, the product has a 2-year shelf life.

### **For Additional Information:**

To request additional product information or sales assistance, contact Aculon's Technical Team, at 858-350-9474. For information on other Aculon products, please visit our website at [www.aculon.com](http://www.aculon.com).

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### **Product Use:**

All statements, technical information and recommendations contained in this document are based on tests or experience that Aculon believes to be dependable. However, many factors beyond Aculon's control can affect the use and effectiveness of an Aculon product in a particular use or application, including conditions under which the product is used and the time and conditions in which the product is expected to perform. Since these factors are exclusively within the user's knowledge and control, it is essential that the user evaluate the Aculon product to determine whether it is fit for a specific purpose and suitable for the user's method of application.

### **Warranty and Liability:**

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**Aculon • 10110 Sorrento Valley Road • San Diego • California • 92121  
• Tel: 858-350-9474 • Email: [info@aculon.com](mailto:info@aculon.com)**