



## 1. Applicability

Aircraft owners, operators, maintenance organisations and maintenance personnel.

## 2. Purpose

To provide information to the Australian Aviation Industry on a product that may be suitable for a wide range of maintenance tasks including cleaning Aircraft Oxygen Systems.

## 3. Background

CASA has been contacted by industry looking for suitable products for cleaning Oxygen Systems. 3M has developed a range of cleaning products under the Novec trademark.

Oxygen system and component cleanliness is of the utmost importance. Cleaning materials should leave the product oil or grease free and have no residual effect that may provide any contamination of the inhaled oxygen; hence there are limited products that may be suitable for use in maintaining and servicing these systems.

This non-flammable, and described as an essentially non-toxic, fluid offers zero ozone depletion potential for varied cleaning and drying needs and may be used as alternatives to CFCs' HFCs, HCFCs and other similar or flammable solvents. Applications include particulate and fluorinated oil or grease removal, as a carrier solvent and for heat transfer. The product also has potential for application in other areas of aircraft or aircraft component maintenance.

Properties of this product may make it suitable as a moisture displacing fluid for cleaning aircraft electrical connectors.

## 4. Approval for Use

The product has been listed as suitable for cleaning oxygen systems by both Boeing and the US Military and has been qualified against a number of military and civil standards.

*Caution: CASA reminds aircraft owners, operators, maintenance organisations and maintenance personnel that unless a product has been approved by the aircraft or aircraft component manufacturer as appropriate for a particular maintenance task then a proper assessment and subsequent approval under CAR36A to authorise the use of the product is required.*

*The product is a "Hydrofluoroether" and is marketed by 3M. The trademark registered by 3M Corporation is Novec HFE-7100 and HFE-71DE.*



**Alternate Cleaning Product for Aircraft Oxygen Systems**

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**Note:**

- HFE-71DE is the stronger of the two solvents and is used as a primary solvent to remove oily contaminate. However, HFE-71DE leaves a residue that may not be compatible with oxygen; this residue should be removed to make the oxygen system safe.
- HFE-7100 can be used on its own for light cleans, but it is ALWAYS used after using HFE-71DE to remove the residue and make the oxygen system safe.

Technical information is available from 3M Australia Phone Customer Service 136 136 or from the following link to United States on the 3M global website [www.3m.com](http://www.3m.com)

## 5. Disclaimer

CASA is not promoting this product or product manufacturer in preference to any other similar product or product manufacturer but is advising the industry of its availability and that its properties warrant consideration when looking for replacement or supplementary maintenance material.

## 6. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link e-mail address:

[AirworthinessBulletin@casa.gov.au](mailto:AirworthinessBulletin@casa.gov.au)

Or in writing, to:

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