



EFCTC NEWSLETTER

An update on fluorocarbons and sulfur hexafluoride

ISSUE 30 - December 2005

HYDROCARBONS MUST BE REMOVED FROM WASTE FRIDGES AND FREEZERS CONFIRMS EU ENVIRONMENT COMMISSIONER

Following the [WEEE Directive](#) Annex II, CFCs, HCFCs and HFCs must be “properly extracted and properly treated”.

The German [RAL Quality Assurance Association](#), in charge of appliances dismantling and recycling has recently questioned the [WEEE Directive](#) interpretation regarding the proper treatment of refrigeration equipment containing [hydrocarbons](#).



Indeed, there is a certain lack of consistency between different paragraphs of Annex II, but the Association had previously pointed out that the WEEE directive unambiguously mentions the removal of all hydrocarbons at the same time as it refers to the extraction of CFCs, HCFCs and HFCs – putting the mandatory removal of these substances on an equal footing.

The Commission was therefore required to assess its position on the matter, and [EU Environment Commissioner Stavros Dimas has confirmed](#) there is an unequivocal obligation to remove liquid hydrocarbons such as [cyclopentane](#) from end-of-life fridges and freezers, expressing concerns regarding the uncontrolled release of hydrocarbons into the environment.

In the opinion of the Commissioner, the recovery obligation covers any kind of liquid contained in the cooling circuits or insulation materials, even if it is not mentioned in the list of substances under Annex 1.

This clarification from the EU Commission makes clear that the uncontrolled release of hydrocarbons into the environment is of major environmental concern.

RAL expects now that the Commission's interpretation of the law should be implemented as soon as possible within the Europe.



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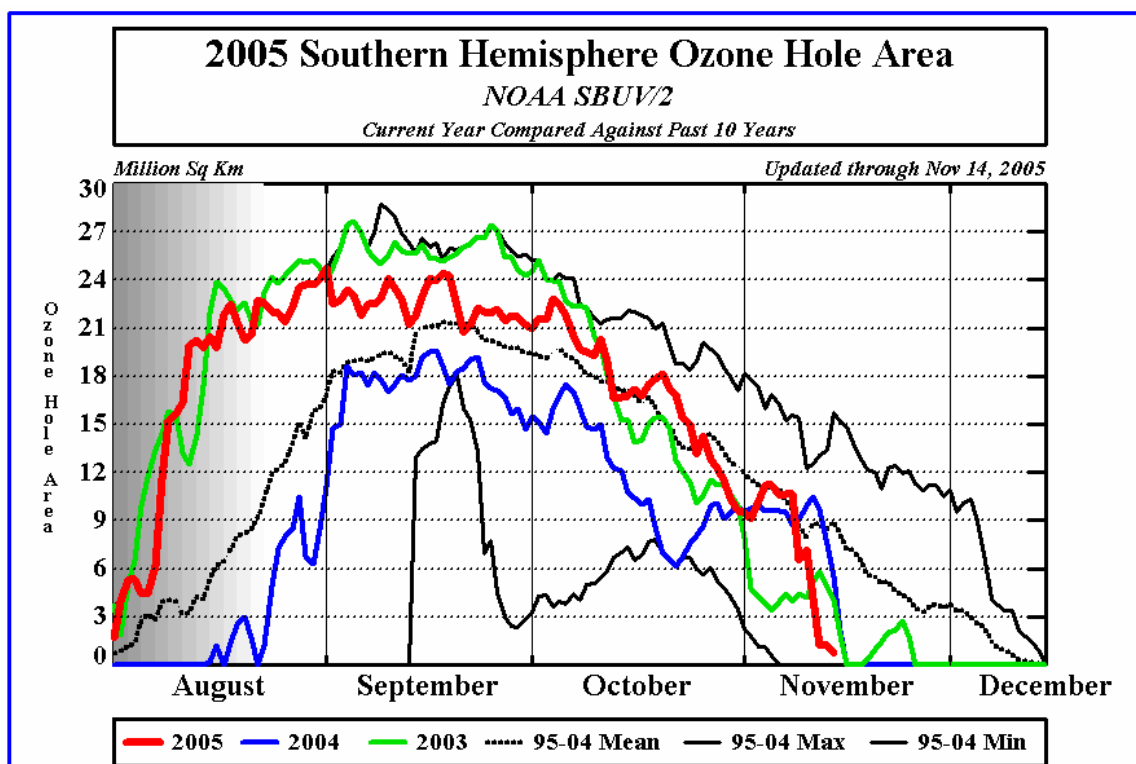
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ANTARCTIC OZONE HOLE 2005 HAS CLOSED

The Antarctic Ozone Hole closed by mid-November which is early compared to the long term average closure date in mid-December. Since the middle of September, the depth and area of the hole had been close to average despite a relatively early start to the depletion (values for August were similar to those in 2003).

[Chlorine and bromine concentrations](#) in the stratosphere are declining as a consequence of reductions in the use of [ODS \(Ozone Depleting Substances\)](#). However, as long as the chlorine and bromine concentrations remain higher than the natural level, some seasonal ozone depletion can be expected. The evolution of this hole is essentially connected to the extent of low stratospheric temperatures and so depends on weather and atmospheric wind patterns. Consequently, variations between years are expected.

The decline of the ozone hole is covered in the [Antarctic Ozone Bulletin nr 6 \(Oct 2005\)](#) which also shows that the area of low temperature was larger in 2005 than the long term average of previous years.



http://www.cpc.ncep.noaa.gov/products/stratosphere/polar/gif_files/ozone_hole_2005.png



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See also the [October News](#) on the issue

HFC BASED MDI SUPERIOR TO STANDARD FORMULATION IN PATIENTS WITH SEVERE ASTHMA

Pulmonary function in patients with severe asthma improved when [MDIs](#) formulated with beclomethasone dipropionate (BDP) switched to hydrofluoroalkane-134a (HFA) from chlorofluorocarbon (CFC) at half the daily dose. HFA-BDP may improve the small airway of patients with severe asthma, after a scientific study.

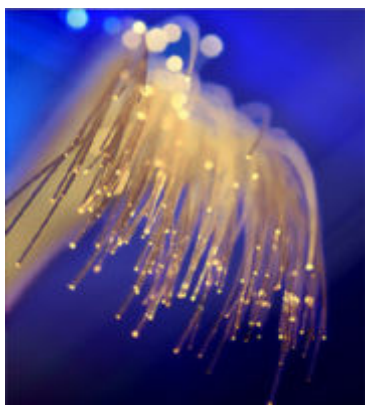
The extra fine HFA aerosol enables increased delivery of BDP to smaller airways compared to CFC, thus permitting lower corticosteroid dosing. This is believed to be of added benefit in patients with severe asthma who may have smaller, more restricted airways.

The results are consistent with [previous studies](#) in patients with moderate to severe asthma. The superiority of the HFA formulation in this trial suggests that it may be the preferred choice in patients with severe asthma.

Source :

<http://www.docguide.com/news/content.nsf/news/8525697700573E18852570AE00576C9C>

HFCs USE BY THE FIBER OPTICS INDUSTRY



Fiber optics systems must be perfectly cleaned from their contaminants in order to function optimally. The contamination is simple: dust and light oils, such as fingerprints, but the problem comes from the tiny fiber optic filaments themselves. These fibers are typically only 8 microns in diameter, yet along such a small conduit more than 50,000 simultaneous phone conversations can be transmitted.

Different solvent formulations have been tried and tested, but only [HFC solvent blends](#) have been identified to be powerful enough, fast-drying, and residue-free for this precision cleaning issue.



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HFCs easily mix into different blends and azeotropes, which can be tailored to the application.

- The products are very dense, so they lift away inorganic contamination
- They must be good solvents to dissolve organic grease, oils and more, while being not too aggressive.
- They dry quickly, which makes maintenance procedures easier
- They are nonflammable so safety is enhanced.
- They also have a much lower surface tension than water and evaporate quickly, easily, even from deep inside complex shapes.

Source: Commercial information