

## FACT SHEET

### FINAL RULE TO EXCLUDE FOUR COMPOUNDS FROM CONTROL AS VOLATILE ORGANIC COMPOUNDS (VOC)

#### ACTION

- On February 4, 2013, the U.S. Environmental Protection Agency (EPA) issued a final rule identifying four chemical compounds that will no longer be regulated as volatile organic compounds (VOCs) under the Clean Air Act for purposes of meeting the national ambient air quality standards for ozone. These four compounds are:
  - $\text{HCF}_2\text{OCF}_2\text{H}$  (also known as HFE 134)
  - $\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$  (also known as HFE-236cal2)
  - $\text{HCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$  (also known as HFE-338pcc13) and
  - $\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{CF}_2\text{OCF}_2\text{H}$  (also known as H-Galden 1040X and H-Galden ZT 130 (or 150 or 180)).
- Some VOCs contribute significantly to the formation of ground-level ozone (smog). Exposure to ground-level ozone can cause serious respiratory illness.
- EPA is excluding these four compounds as VOCs because scientific evidence shows they are "negligibly reactive," meaning they contribute little or nothing to the formation of smog.
- This final action allows, but does not require, states to remove regulatory controls on these four compounds that are part of state implementation plans. These plans lay out control requirements designed to help states meet the national air quality standards for ground-level ozone.
- While these four compounds do not contribute to the formation of smog, they are greenhouse gases that contribute to climate change. Because of their role in climate change, EPA invited the public to submit comments and additional information relevant to this issue and whether such information should be considered in connection with the decision to grant an exemption from the regulatory definition of VOC. EPA received no comments.

## BACKGROUND

- A compound may be excluded as a VOC as a result of public petitions and new scientific data that demonstrate its negligible effect on the formation of smog. Since 1977, EPA has removed 57 specific compounds or classes of compounds from the list of VOCs that contribute to smog formation.
- EPA's policy on VOCs was codified on February 3, 1992, in a revised regulation, "Requirements for Preparation, Adoption, and Submittal of State Implementation Plans." Additional guidance was given in the September 13, 2005, document titled "Interim Guidance on Control of Volatile Organic Compounds in Ozone State Implementation Plans."
- EPA has carefully reviewed any additional scientific data and considered all public comments before making a final decision to exclude these four compounds from regulation as VOCs.
- The global warming potential (GWP) of each of these compounds is comparable to the GWP of other compounds that have been granted an exemption from the definition of a VOC. These four compounds have the following GWP levels compared to CO<sub>2</sub> :

<b>Chemical Compound</b>	<b>GWP relative to CO<sub>2</sub> (over 100 years)</b>
HFE134	6320
HFE-236ca12	2800
HFE-338pcc13	1500
H-Galden 1040X	1870

- These compounds are not listed as hazardous air pollutants under the Clean Air Act.
- Since these compounds contain no chlorine or bromine, they do not deplete stratospheric ozone. In fact, these compounds are expected to be used as a replacement for refrigerants that deplete stratospheric ozone.
- Excluding these compounds as VOC, makes it easier and less expensive for industry to use these compounds.

## FOR MORE INFORMATION

- To download this final rule from EPA's Web site, go to <http://www.epa.gov/airquality/ozonepollution/actions.html#impl>

- Today's action and other background information are also available either electronically at <http://www.regulations.gov>, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.
  - The Public Reading Room is located at EPA Headquarters, room number 3334 in the EPA West Building, 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding Federal holidays.
  - Visitors are required to show photographic identification, pass through a metal detector and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
  - Materials for this proposed action can be accessed using Docket ID No. EPA-HQ-OAR-2007-0089.
- For further information about the proposed rule, contact Mr. David Sanders of EPA's Office of Air Quality Planning and Standards, at (919) 541-3356 or by e-mail at [sanders.dave@epa.gov](mailto:sanders.dave@epa.gov).