

**HISTORICAL SUMMARY OF THE FEDERAL RECOMMENDED
POLICY ON THE CONTROL OF VOLATILE ORGANIC COMPOUNDS
AND ITS IMPLEMENTATION IN ILLINOIS**

(Updated: November 10, 2015)

Beginning in 1977, USEPA's *Recommended Policy on the Control of Volatile Organic Compounds* (Recommended Policy) exempt certain chemical compounds from the definition of VOC or VOM.¹ These compounds were exempt due to their negligible photochemical reactivity (*i.e.*, their reduced capacity for partaking in the complex atmospheric chemical reactions that result in the formation in tropospheric ozone). Ultimately, in 1991, USEPA codified its Recommended Policy in the *Code of Federal Regulations* at 40 C.F.R. 51.100(s) in its definition of VOC.

Specifically, on July 8, 1977, USEPA established its Recommended Policy in the *Federal Register* at 42 Fed. Reg. 35314. At that time, USEPA stated that the following compounds should be exempt from regulation due to their negligible photochemical reactivity:

dichloromethane (methylene chloride) (CAS No. 75-09-2)²;
ethane (CAS No. 74-84-0);
methane (CAS No. 74-82-8);
1,1,1-trichloroethane (methyl chloroform) (CAS No. 71-55-6); and
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113 or Freon 113) (CAS No. 76-13-1)³.

USEPA clarified its policy on June 4, 1979, at 44 Fed. Reg. 32043, and May 16, 1980, at 45 Fed. Reg. 32424.

USEPA later amended its Recommended Policy by adding exempt compounds. On July 22, 1980, at 45 Fed. Reg. 48941, USEPA added five chlorofluorocarbons (CFCs) and one fluorocarbon (FC)⁴:

¹ USEPA consistently uses the term "VOC" rather than "VOM," but both designations refer to the same matter. All references in this opinion and order to "VOM" refer to what USEPA calls "VOC."

² USEPA's July 8, 1977 discussion mentioned methylene chloride and several other compounds, but none was included in either Table 1, which actually listed the recommended-exempt compounds, and methylene chloride did not appear in Table 2, which listed low-reactivity compounds. However, the June 4, 1979 and May 16, 1980 clarifications and later amendments make it clear that USEPA considered methylene chloride exempt as of the initial publication of the Recommended Policy on July 8, 1977.

³ Use of the designation "CFC-113" does not include the isomer 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113) (CAS No. 354-58-5) and mixed isomers (CAS No. 26523-64-8).

chlorodifluoromethane (CFC-22) (CAS No. 75-45-6);
chloropentafluoroethane (CFC-115) (CAS Nos. 76-15-3);
dichlorodifluoromethane (CFC-12) (CAS No. 75-71-8);
1,2-dichlorotetrafluoroethane (CFC-114) (CAS No. 76-14-2)⁵;
trichlorofluoromethane (CFC-11) (CAS No. 75-69-4); and
trifluoromethane (FC-23) (CAS No. 75-46-7).

On January 18, 1989, at 54 Fed. Reg. 1987, USEPA added four hydrohalocarbon compounds (HFCs and HCFCs) to the list of those exempt:

1-chloro-1,1-difluoroethane (HCFC-142b) (CAS No. 75-68-3)⁶;
1,1-dichloro-1-fluoroethane (HCFC-141b) (CAS No. 1717-00-6)⁷;
1,1-dichloro-2,2,2-trifluoroethane (HCFC-123) (CAS No. 306-83-2)⁸; and
1,1,1,2-tetrafluoroethane (HFC-134a) (CAS No. 811-97-2)⁹;

Finally, on March 18, 1991, at 52 Fed. Reg. 11418, USEPA revisited certain compounds earlier denied exemption and revised the Recommended Policy for the last time, to exclude five additional hydrohalocarbon compounds and four classes of fluorocarbon compounds. The five hydrohalocarbon compounds were:

⁴ This action purported to add trichlorotrifluoroethane (CFC-113), but that compound was originally listed on July 8, 1977, although then given the parenthetical designation “Freon-113.” That USEPA counted this single compound twice was further apparent in the action of January 18, 1989, discussed in the text below, when it referred to a list of exempt compounds that included “eight additional chlorofluorocarbons (CFCs).”

⁵ Use of the designation “CFC-114” does not include the isomer 1,1-dichlorotetrafluoroethane (CFC-114a) (CAS No. 374-07-2) and mixed isomers (CAS No. 1320-37-2).

⁶ Use of the designation “HCFC-142b” does not include the isomers 1-chloro-1,2-difluoroethane (HCFC-142a) (CAS No. 338-64-7) and 1-chloro-2,2-difluoroethane (CAS No. 338-65-8) and mixed isomers (CAS No. 25497-29-4).

⁷ Use of the designation “HCFC-141b” does not include the isomers 1,2-dichlorofluoroethane (HCFC-141) (CAS No. 430-57-9) and 1,1-dichloro-2-fluoroethane (HCFC-141a) (CAS No. 430-53-5) and mixed isomers (CAS No. 25167-88-8).

⁸ Use of the designation “HCFC-123” does not include the isomers 1,2-dichlorotrifluoroethane (HCFC-123a) (CAS No. 354-23-4) and 1,1-dichloro-1,2,2-trifluoroethane (HCFC-123b) (CAS No. 812-04-4) and mixed isomers (CAS No. 34077-87-7). There is a separate exclusion for the 1,2-dichlorotrifluoroethane (HCFC-123a) isomer. See text at note 14 below.

⁹ Use of the designation “HFC-134a” does not include the isomer 1,1,2,2-tetrafluoroethane (HFC-134) (CAS No. 359-35-3) and mixed isomers (CAS No. 29759-38-4). There is a separate exclusion for the isomer 1,1,2,2-tetrafluoroethane (HFC-134). See text at note 12 below.

1-chloro-1,2,2,2-tetrafluoroethane (HCFC-124) (CAS No. 2837-89-0)¹⁰;
1,1-difluoroethane (HFC-152a) (CAS No. 75-37-6)¹¹.
pentafluoroethane (HFC-125) (CAS No. 354-33-6);
1,1,2,2-tetrafluoroethane (HFC-134) (CAS No. 359-35-3)¹²;
1,1,1-trifluoroethane (HFC-143a) (CAS No. 420-46-2)¹³; and

The four classes of fluorocarbon compounds were:

cyclic, branched, or linear, completely-fluorinated alkanes;
cyclic, branched, or linear, completely-fluorinated ethers with no unsaturations;
cyclic, branched, or linear, completely-fluorinated tertiary amines with no unsaturations;
and
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

On March 18, 1991, at 56 Fed. Reg. 11387, USEPA proposed codifying the Recommended Policy in its definition of VOC at 40 C.F.R. 51.100(s). This proposed action was undertaken in conjunction with the last amendments to the Recommended Policy discussed above. USEPA adopted the amended definition of VOC on February 3, 1992, at 57 Fed. Reg. 3945. This USEPA codification included all the compounds and classes of compounds previously included as exempt in the Recommended Policy. It also included test methods for determining compliance with the VOC emissions limits, and a provision addressing situations where the test method also measured exempt compounds.

USEPA subsequently amended the 40 C.F.R. 51.100(s) definition of VOM on a number of occasions. Those are summarized as follows:

¹⁰ Use of the designation “HCFC-124” does not include the isomer 1-chloro-1,1,2,2-tetrafluoroethane (HCFC-124a) (CAS No. 354-25-6) and mixed isomers (CAS No. 63938-10-3).

¹¹ Use of the designation “HFC-152a” does not include the isomer 1,2-difluoroethane (HFC-152) (CAS No. 624-72-6) and mixed isomers (CAS No. 27987-06-0).

¹² See note 9 above.

¹³ Use of the designation “HFC-143a” does not include the isomer 1,1,2-trifluoroethane (HFC-143) (CAS No. 430-66-0) and mixed isomers (CAS No. 27987-06-0).

Date of Amendment (Federal Citation)	Compound(s) Exempted	Date Exempted in Illinois (Board Docket)
October 5, 1994 (59 Fed. Reg. 50696)	1-chloro-4-(trifluoromethyl)benzene (p-chloro- benzotrifluoride, PCBTF) (CAS No. 98-56-6) cyclic, branched, or linear completely- methylated siloxanes	July 12, 1995 (R95-2)
June 16, 1995 (60 Fed. Reg. 31633)	propan-2-one (acetone or dimethylketone) (CAS No. 67-64-1)	October 19, 1995 (R95-16)
February 7, 1996 (61 Fed. Reg. 4588)	tetrachloroethene (tetrachloroethylene, perchloroethylene) (CAS No. 127-18-4)	February 6, 1997 (R96-16)
October 8, 1996 (61 Fed. Reg. 52847)	1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43- 10mee) (CAS No. 138495-42-8) 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb) (CAS No. 507-55-1) 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca) (CAS No. 422-56-0)	May 16, 1997 (R97-17)

<p>August 22, 1997 (62 Fed. Reg. 44900)</p>	<p>1-chloro-1-fluoroethane (HCFC-151a) (CAS No. 1615-75-4)</p> <p>chlorofluoromethane (HCFC-31) (CAS No. 593-70-4)</p> <p>1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a) (CAS No. 354-23-4)¹⁴</p> <p>difluoromethane (HFC-32) (CAS No. 75-10-5)</p> <p>2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF₃)₂CFCF₂OCH₃) (CAS No. 163702-08-7)</p> <p>2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF₃)₂CFCF₂OC₂H₅) (CAS No. 163702-06-5)</p> <p>1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C₄F₉OC₂H₅ or HFE-7200) (CAS No. 163702-05-4)</p> <p>fluoroethane (HFC-161) (CAS No. 353-36-3)</p> <p>1,1,1,2,3,3-hexafluoropropane (HFC-236ea) (CAS No. 431-63-0)</p> <p>1,1,1,3,3,3-hexafluoropropane (HFC-236fa) (CAS No. 690-39-1)</p> <p>1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane (C₄F₉OCH₃ or HFE-7100) (CAS No. 163702-07-6)</p> <p>1,1,1,3,3-pentafluorobutane (HFC-365mfc) (CAS No. 406-58-6)</p> <p>1,1,2,2,3-pentafluoropropane (HFC-245ca) (CAS No. 679-86-7)</p> <p>1,1,2,3,3-pentafluoropropane (HFC-245ea) (CAS No. 24270-66-4)</p> <p>1,1,1,2,3-pentafluoropropane (HFC-245eb) (CAS No. 431-31-2)</p> <p>1,1,1,3,3-pentafluoropropane (HFC-245fa) (CAS No. 460-73-1)</p>	<p>June 22, 1998 (R98-17)</p>
---	--	-----------------------------------

Date of Amendment (Federal Citation)	Compound(s) Exempted	Date Exempted in Illinois (Board Docket)
April 9, 1998 (63 Fed. Reg. 17331)	methyl ethanoate (ethyl acetate) (CAS No. 79-20-9)	June 22, 1998 (R98-17)
November 29, 2004 (69 Fed. Reg. 69290)	3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)hexane (HFE-7500) (CAS No. 297730-93-9) 1,1,1,2,2,3,3-heptafluoro-3-methoxypropane (HFE-7000) (CAS No. 375-03-1) 1,1,1,2,3,3,3-heptafluoropropane (HFC-227ea) (CAS No. 431-89-0) methyl methanoate (methyl formate) (CAS No. 107-31-3)	May 23, 2005 (R05-16)
November 29, 2004 (69 Fed. Reg. 69298)	1,1-dimethylethyl acetate (<i>t</i> -butyl acetate) (CAS No. 540-88-5) ¹⁵	May 23, 2005 (R05-16)
January 18, 2007 (72 Fed. Reg. 69298)	1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-(trifluoromethyl)pentane (HFE-7300 and L-14787) (CAS No. 132182-92-4)	January 16, 2008 (R08-6)
January 21, 2009 (74 Fed. Reg. 3437)	dimethyl carbonate (CAS No. 616-38-6) 4-methyl-1,3-dioxolan-2-one (propylene carbonate) (CAS No. 108-32-7)	January 11, 2010 (R10-7)
June 22, 2012 77 Fed. Reg. 37610	(1 <i>E</i>)-1,3,3,3-tetrachloropro-1-pene (HFO-1234ze) (CAS No. 29118-24-9)	January 24, 2013 (R13-1)

¹⁴ See note 8 above.

¹⁵ USEPA excluded *t*-butyl acetate from the definition of VOC for purposes of emissions control and VOC content requirements. USEPA retained *t*-butyl acetate as a VOC for purposes of recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements.

Date of Amendment (Federal Citation)	Compound(s) Exempted	Date Exempted in Illinois (Board Docket)
February 12, 2013 77 Fed. Reg. 37610	bis(difluoromethoxy)(difluoro)methane (CHF ₂ OCF ₂ OCHF ₂ or HFE-236cal2) (CAS No. 78522-47-1) bis(difluoromethyl) ether (oxybis(difluoro- methane), (difluoromethoxy)(difluoro)methane, 1,1,1',1'-tetrafluorodimethyl ether) (CHF ₂ OCHF ₂ or HFE-134) (CAS No. 1691-17-4) 1,2-bis(difluoromethoxy)-1,1,2,2-tetrafluoro- ethane (CHF ₂ OCF ₂ CF ₂ OCHF ₂ or HFE- 338pcc13) (CAS No. 188690-78-0) 1-(difluoromethoxy)-2-[(difluoromethoxy)- difluoromethoxy]-1,1,2,2-tetrafluoroethane (CHF ₂ OCF ₂ OCF ₂ CF ₂ OCHF ₂ or HFE-43- 10pccc124) (CAS No. 188690-77-9)	November 21, 2013 (R14-7)
August 28, 2013 78 Fed. Reg. 53029	(1 <i>E</i>)-1-chloro-3,3,3-trifluoroprop-1-ene (Solstice 1233zd(E)) (CAS No. 102687-65-0)	November 21, 2013 R14-7)
October 22, 2013 78 Fed. Reg. 62451	2,3,3,3-tetrafluoropropene (CAS 754-12-1)	June 5, 2014 (R14-16)
March 27, 2014 79 Fed. Reg. 17037	2-amino-2-methylpropan-1-ol (AMP) (CAS 124- 68-5)	March 5, 2015 (R15-5)

**HISTORICAL SUMMARY OF EXCLUSIONS FROM
THE ILLINOIS DEFINITION OF VOM**

Public Act 80-1299, effective August 2, 1978, added Section 9.1 to the Act. Subsection (e) of Section 9.1 (formerly subsection (c)) requires the Board to incorporate exemptions into the Illinois definition of VOM based on the federal exemptions. This provision required the Board to use the Section 7.2 identical-in-substance procedure (exempt from Section 27 of the Act (415 ILCS 5/27 (2002) and the notice provisions of the APA) to incorporate the federal exemptions into the Illinois definition of VOM.

The Board initially adopted the exemptions as part of Section 27 general rulemakings. In dockets R78-3 and R78-4 (consolidated), on August 23, 1979, as part of the original Reasonably Available Control Technology (RACT) rules, the Board adopted a definition of VOM that excluded methane and ethane, expressly declining to exempt methylene chloride, 1,1,1-trichloroethane, and CFC-113. In docket R80-5, on December 30, 1982, as part of the RACT II rules, the Board added methylene chloride and 1,1,1-trichloroethane to the list of exempt

compounds. Finally, in docket R86-37, on December 22, 1987, the Board added the other six CFC and one FC compounds that USEPA had excluded in its Recommended Policy up to that date.

After that time, the Board repeatedly used the identical-in-substance procedure to incorporate federal additions to the list of exempt compounds. In docket R89-8, on October 18, 1989, the Board amended the definition of VOM to exempt the additional compounds excluded by USEPA on January 18, 1989. In docket R91-10, on September 12, 1991, the Board added the one HCFC, four HFCs, and four classes of compounds exempt by USEPA on March 18, 1991. In docket R91-24, on July 30, 1992, the Board further updated the Illinois definition of VOM for purposes of the metropolitan Chicago and East St. Louis areas.¹⁶

Beginning in 1992, with USEPA’s codification of the compounds excluded from VOC, the Board had a way to readily determine the status of the list of exempt compounds: by referring to the “List of Sections Affected” in the *Code of Federal Regulations*. At that time, the Board started treating the updates to the definition of VOM in the same manner that the Board treats all other identical-in-substance subject matters. The Board began routinely reserving dockets for each succeeding six-month period and specifically monitoring for federal revisions. Accordingly, the Board has opened several dockets assigned to this subject matter, and the Board has dismissed dockets when USEPA did not amend its definition in the relevant time-frame. Before USEPA’s codification of excluded compounds, the Board relied on the Illinois Environmental Protection Agency and the regulated community to specifically draw the Board’s attention to any amendments to USEPA’s Recommended Policy. The Board has consistently worked to ensure that the Illinois definition of VOM is the same as that used by USEPA, and that any federal revisions are promptly reflected in the Illinois definition.

What follows is a summary listing of all Board dockets related to exemptions from the definition of VOM. This table indicates the docket number of each proceeding, the date and nature of the Board action on each docket, and the general subject matter of each. Those entries that appear in bold italic amended the definition of VOM to exempt new compounds.

Board Docket	Board Action and Date. (Explanation/Docket Contents)
R78-3 & R78-4	Adopted August 23, 1979. (RACT regulations (general rulemaking); established a definition of VOM), exempting: ethane (CAS No. 74-84-0) methane (CAS No. 74-82-8)

¹⁶ The amendments in docket R91-24 extended the exemptions to the definitions of VOM formerly found in 35 Ill. Adm. Code 218 and 219, which the Board added in dockets R91-7 and R91-8, on July 25, 1991. However, in docket R93-9, on September 9, 1993, the Board consolidated all definitions into 35 Ill. Adm. Code 211.

Board Docket	Board Action and Date. (Explanation/Docket Contents)
R80-5	<p>Adopted December 30, 1982. (RACT II regulations (general rulemaking); generally amending the definition of VOM), exempting:</p> <p>dichloromethane (methylene chloride) (CAS No. 75-09-2)</p> <p>1,1,1-trichloroethane (methyl chloroform) (CAS No. 71-55-6)</p>
R86-37	<p>Adopted December 22, 1987. (Amendments to VOM regulations (general rulemaking), exempting:</p> <p>chlorodifluoromethane (CFC-22) (CAS No. 75-45-6)</p> <p>chloropentafluoroethane (CFC-115) (CAS Nos. 76-15-3)</p> <p>dichlorodifluoromethane (CFC-12) (CAS No. 75-71-8)</p> <p>1,2-dichlorotetrafluoroethane (CFC-114) (CAS No. 76-14-2)</p> <p>trichlorofluoromethane (CFC-11) (CAS No. 75-69-4)</p> <p>1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113, Freon 113) (CAS No. 76-13-1)</p> <p>trifluoromethane (HFC-23) (CAS No. 75-46-7)</p>
R89-8	<p>Adopted October 18, 1989. (USEPA amendments of January 18, 1989), exempting:</p> <p>1-chloro-1,1-difluoroethane (HCFC-142b) (CAS No. 75-68-3)</p> <p>1,1-dichloro-1-fluoroethane (HCFC-141b) (CAS No. 1717-00-6)</p> <p>1,1-dichloro-2,2,2-trifluoroethane (HCFC-123) (CAS No. 306-83-2)</p> <p>1,1,1,2-tetrafluoroethane (HFC-134a) (CAS No. 811-97-2)</p>

Board Docket	Board Action and Date. (Explanation/Docket Contents)
R91-10	<p>Adopted September 12, 1991. (USEPA amendments of March 18, 1991), exempting:</p> <p>1-chloro-1,2,2,2-tetrafluoroethane (HCFC-124, 2-chloro-1,1,1,2-tetrafluoroethane) (CAS No. 2837-89-0)</p> <p>1,1-difluoroethane (HFC-152a) (CAS No. 75-37-6)</p> <p>pentafluoroethane (HFC-125) (CAS No. 354-33-6)</p> <p>1,1,2,2-tetrafluoroethane (HFC-134) (CAS No. 359-35-3)</p> <p>1,1,1-trifluoroethane (HFC-143a) (CAS No. 420-46-2)</p> <p>four classes of perfluorocarbon compounds:</p> <p>cyclic, branched, or linear, completely fluorinated alkanes</p> <p>cyclic, branched, or linear, completely fluorinated ethers with no unsaturations</p> <p>cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations</p> <p>sulphur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine</p>
R91-24	<p>Adopted July 30, 1992. (Extended exemptions to Chicago and Metro-East areas and responded to the February 3, 1992 USEPA codification of the exemptions)</p>
<i>R92-6</i>	<p><i>Dismissed April 9, 1992. (No USEPA amendments during July 1, 1991 through December 31, 1991)</i></p>
<i>R92-15</i>	<p><i>Dismissed August 13, 1992. (No USEPA amendments during January 1, 1992 through June 30, 1992)</i></p>
<i>R93-3</i>	<p><i>Dismissed January 21, 1993. (No USEPA amendments during July 1, 1992 through December 31, 1992)</i></p>
<i>R93-21</i>	<p><i>Dismissed September 23, 1993. (No USEPA amendments during January 1, 1993 through June 30, 1993)</i></p>
<i>R94-3</i>	<p><i>Dismissed March 31, 1994. (No USEPA amendments during July 1, 1993 through December 31, 1993)</i></p>
<i>R94-22</i>	<p><i>Dismissed October 6, 1994. (No USEPA amendments during January 1, 1994 through June 30, 1994)</i></p>

Board Docket	Board Action and Date. (Explanation/Docket Contents)
R95-2	<p>Adopted July 7, 1995. (USEPA amendments during July 1, 1994 through December 31, 1994), exempting:</p> <p>1-chloro-4-(trifluoromethyl)benzene (p-chlorobenzotrifluoride, PCBTF) (CAS No. 98-56-6)</p> <p>a class of methylated siloxane compounds:</p> <p>cyclic, branched, or linear completely-methylated siloxanes</p>
R95-16	<p>Adopted October 19, 1995. (USEPA amendments during January 1, 1995 through June 30, 1995: those of June 16, 1995), exempting:</p> <p>propan-2-one (acetone or dimethylketone) (CAS No. 67-64-1)</p>
<i>R96-6</i>	<i>Dismissed February 15, 1996. (No USEPA amendments during July 1, 1995 through December 31, 1995)</i>
R96-16	<p>Adopted February 6, 1997. (USEPA amendments during July 1, 1996 through December 31, 1996), exempting:</p> <p>tetrachloroethene (perchloroethylene) (CAS No. 127-18-4)</p>
<i>R97-1</i>	<i>Dismissed October 17, 1996. (USEPA amendments during January 1, 1995 through June 30, 1995: those of February 7, 1996 were included in docket R96-16)</i>
R97-17	<p>Adopted May 15, 1997. (USEPA amendments during July 1, 1996 through December 31, 1996), exempting:</p> <p>1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee) (CAS No. 138495-42-8)</p> <p>1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb) (CAS No. 507-55-1)</p> <p>3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca) (CAS No. 422-56-0)</p>
<i>R98-1</i>	<i>Dismissed August 7, 1997. (No USEPA amendments during January 1, 1997 through June 30, 1997)</i>

Board Docket	Board Action and Date. (Explanation/Docket Contents)
R98-17	<p>Adopted June 17, 1998. (USEPA amendments during July 1, 1997 through December 31, 1997 and April 9, 1998), exempting:</p> <p>1-chloro-1-fluoroethane (HCFC-151a) (CAS No. 1615-75-4)</p> <p>chlorofluoromethane (HCFC-31) (CAS No. 593-70-4)</p> <p>1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a) (CAS No. 354-23-4)</p> <p>difluoromethane (HFC-32) (CAS No. 75-10-5)</p> <p>2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF₃)₂CF₂OCH₃) (CAS No. 163702-08-7)</p> <p>2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF₃)₂CF₂OC₂H₅) (CAS No. 163702-06-5)</p> <p>1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C₄F₉OC₂H₅ or HFE-7200) (CAS No. 163702-05-4)</p> <p>fluoroethane (HFC-161) (CAS No. 353-36-3)</p> <p>1,1,1,2,3,3-hexafluoropropane (HFC-236ea) (CAS No. 431-63-0)</p> <p>1,1,1,3,3,3-hexafluoropropane (HFC-236fa) (CAS No. 690-39-1)</p> <p>methyl ethanoate (ethyl acetate) (CAS No. 79-20-9)</p> <p>1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane (C₄F₉OCH₃ or HFE-7100) (CAS No. 163702-07-6)</p> <p>1,1,1,3,3-pentafluorobutane (HFC-365mfc) (CAS No. 406-58-6)</p> <p>1,1,1,2,3-pentafluoropropane (HFC-245eb) (CAS No. 431-31-2)</p> <p>1,1,1,3,3-pentafluoropropane (HFC-245fa) (CAS No. 460-73-1)</p> <p>1,1,2,2,3-pentafluoropropane (HFC-245ca) (CAS No. 679-86-7)</p> <p>1,1,2,3,3-pentafluoropropane (HFC-245ea) (CAS No. 24270-66-4)</p>
R99-5	<i>Dismissed August 20, 1998. (USEPA amendments during January 1, 1998, through June 30, 1998: those of April 9, 1998 were included in docket R98-17)</i>
R99-11	<i>Dismissed February 18, 1999. (No USEPA amendments during July 1, 1998, and December 31, 1998)</i>
R00-1	<i>Dismissed August 19, 1999. (No USEPA amendments during January 1, 1999, through June 30, 1999)</i>
R00-9	<i>Dismissed February 17, 2000. (No USEPA amendments during July 1, 1999, through December 31, 1999)</i>

Board Docket	Board Action and Date. (Explanation/Docket Contents)
R01-6	<i>Dismissed July 27, 2000. (No USEPA amendments during January 1, 2000, through June 30, 2000)</i>
R01-19	<i>Dismissed March 1, 2001. (No USEPA amendments during July 1, 2000, and December 31, 2000)</i>
R02-4	<i>Dismissed August 23, 2001. (No USEPA amendments during January 1, 2001, through June 30, 2001)</i>
R02-15	<i>Dismissed February 21, 2002. (No USEPA amendments during July 1, 2001 through December 31, 2001)</i>
R03-3	<i>Dismissed August 8, 2002. (No USEPA amendments during January 1, 2002 and June 30, 2002)</i>
R03-14	<i>Dismissed February 6, 2003. (No USEPA amendments during July 1, 2002 and December 31, 2002)</i>
R04-2	<i>Dismissed August 7, 2003. (No USEPA amendments during January 1, 2003 and June 30, 2003)</i>
R04-19	<i>Dismissed March 4, 2004. (No USEPA amendments during July 1, 2003 through December 31, 2003)</i>
R05-5	<i>Dismissed September 16, 2004. (No USEPA amendments during January 1, 2004 through June 30, 2004)</i>
R05-16	<p>Adopted May 19, 2005. (USEPA amendments during July 1, 2004 through December 31, 2004), exempting:</p> <p>1,1-dimethylethyl acetate (<i>tert</i>-butyl acetate) (CAS No. 540-88-5)</p> <p>3-ethoxy1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)hexane (HFE-7500) (CAS No. 297730-93-9)</p> <p>1,1,1,2,2,3,3-heptafluoro-3-methoxypropane (HFE-7000) (CAS No. 375-03-1)</p> <p>1,1,1,2,3,3,3-heptafluoropropane (HFC-227ea) (CAS No. 431-89-0)</p> <p>methyl methanoate (methyl formate) (CAS No. 107-31-3)</p>
R06-3	<i>Dismissed September 1, 2005. (No USEPA amendments during January 1, 2005 through June 30, 2005)</i>

Board Docket	Board Action and Date. (Explanation/Docket Contents)
R06-14	<i>Dismissed May 18, 2006. (No USEPA amendments during July 1, 2005 through December 31, 2005)</i>
R07-1	<i>Dismissed September 21, 2006. (No USEPA amendments during January 1, 2006 through June 30, 2006)</i>
R07-10	<i>Dismissed February 1, 2007. (No USEPA amendments during July 1, 2006 through December 31, 2006)</i>
R08-6	Adopted January 10, 2008. (USEPA amendments during January 1, 2007 through June 30, 2007), exempting: 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-(trifluoromethyl)pentane (HFE-7300 and L-14787) (CAS No. 132182-92-4)
R08-12	<i>Dismissed March 6, 2008. (No USEPA amendments during July 1, 2007 through December 31, 2007)</i>
R09-6	<i>Dismissed August 21, 2008. (No USEPA amendments during January 1, 2008 through June 30, 2008)</i>
R09-12	<i>Dismissed March 5, 2009. (No USEPA amendments during July 1, 2008 through December 31, 2008)</i>
R10-7	Adopted January 7, 2010. (USEPA amendments during January 1, 2009 through June 30, 2009), exempting: dimethyl carbonate (CAS No. 616-38-6) 4-methyl-1,3-dioxolan-2-one (propylene carbonate) (CAS No. 108-32-7)
R10-16	<i>Dismissed April 1, 2010. (No USEPA amendments during July 1, 2009 through December 31, 2009)</i>
R11-5	<i>Dismissed August 5, 2010. (No USEPA amendments during January 1, 2010 through June 30, 2010)</i>
R11-12	<i>Dismissed February 17, 2011. (No USEPA amendments during July 1, 2010 through December 31, 2010)</i>
R12-5	<i>Dismissed August 4, 2011. (No USEPA amendments during January 1, 2011 through June 30, 2011)</i>
R12-16	<i>Dismissed February 2, 2012. (No USEPA amendments during July 1, 2011 through December 31, 2011)</i>

Board Docket	Board Action and Date. (Explanation/Docket Contents)
R13-1	<p>Adopted January 24, 2013, 2012. (USEPA amendments during January 1, 2012 through June 30, 2012), exempting:</p> <p>(1E)-1,3,3,3-tetrachloropro-1-pene (HFO-1234ze) (CAS No. 29118-24-9)</p>
R13-10	<p><i>Dismissed February 7, 2013. (No USEPA amendments during July 1, 2012 through December 31, 2012)</i></p>
R14-7	<p>Adopted November 21, 2013. (USEPA amendments during January 1, 2013 through June 30, 2013), exempting:</p> <p>bis(difluoromethoxy)(difluoro)methane (CHF₂OCF₂OCHF₂ or HFE-236cal2) (CAS No. 78522-47-1)</p> <p>bis(difluoromethyl) ether (oxybis(difluoromethane), (difluoromethoxy)(difluoro)methane, 1,1,1',1'-tetrafluorodimethyl ether) (CHF₂OCHF₂, HFE-134) (CAS No. 1691-17-4)</p> <p>1,2-bis(difluoromethoxy)-1,1,2,2-tetrafluoroethane (CHF₂OCF₂CF₂OCHF₂, HFE-338pcc13) (CAS No. 188690-78-0)</p> <p>(1E)-1-chloro-3,3,3-trifluoroprop-1-ene (Solstice 1233zd(E)) (CAS No. 102687-65-0)</p> <p>1-(difluoromethoxy)-2-[(difluoromethoxy)difluoromethoxy]-1,1,2,2-tetrafluoroethane (CHF₂OCF₂OCF₂CF₂OCHF₂, H-Galden 1040X, HFE-43-10pccc124) (CAS No. 188690-77-9)</p>
R14-16	<p>Adopted June 5, 2014. (USEPA amendments during July 1, 2013 through December 31, 2013), exempting:</p> <p>2,3,3,3-tetrafluoropropene (CAS 754-12-1)</p>
R15-5	<p>Adopted March 5, 2015. (USEPA amendments during January 1, 2014 through June 30, 2014), exempting:</p> <p>2-amino-2-methylpropan-1-ol (AMP) (CAS 124-68-5)</p>
R16-3	<p><i>Dismissed July 23, 2015. (No USEPA amendments during January 1, 2015 through June 30, 2015)</i></p>

The following table lists the compounds exempt from the definition of VOM to date in alphabetical order. The table sets forth the date USEPA excluded each compound from the definition of VOC and the date on which the Board subsequently voted to exempt each from the definition of VOM in Illinois.

Exempt Compound	Date of Federal Exemption	Date Exempt in Illinois
2-amino-2-methylpropan-1-ol Alternative name: AMP, 1,1-dimethyl-2-hydroxyethylamine CAS 124-68-5	October 22, 2013	June 5, 2014
bis(difluoromethoxy)(difluoro)methane Alternative name: HFE-236cal2 Structural formula: CHF ₂ OCF ₂ OCHF ₂ CAS No. 78522-47-1)	February 15, 2013	November 21, 2013
1,2-bis(difluoromethoxy)-1,1,2,2-tetrafluoroethane Alternative name: HFE-338pcc13 Structural formula: CHF ₂ OCF ₂ CF ₂ OCHF ₂ CAS No. 188690-78-0	February 15, 2013	November 21, 2013
bis(difluoromethyl) ether Alternative names: oxybis(difluoromethane), (difluoromethoxy)(difluoro)methane, 1,1,1',1'-tetrafluorodimethyl ether, HFE-134 Structural formula: CHF ₂ OCHF ₂ CAS No. 1691-17-4	February 15, 2013	November 21, 2013
1-chloro-1,1-difluoroethane Alternative name: HCFC-142b CAS No. 75-68-3	January 18, 1989	October 18, 1989
chlorodifluoromethane Alternative name: CFC-22 CAS No. 75-45-6	July 22, 1980	December 22, 1987
1-chloro-1-fluoroethane Alternative name: HCFC-151a CAS No. 1615-75-4	August 22, 1997	June 17, 1998
chlorofluoromethane Alternative name: HCFC-31 CAS No. 593-70-4	August 22, 1997	June 22, 1998
chloropentafluoroethane Alternative name: CFC-115 CAS Nos. 76-15-3	July 22, 1980	December 22, 1987
1-chloro-1,2,2,2-tetrafluoroethane Alternative names: HCFC-124, 2-chloro-1,1,1,2-tetrafluoroethane CAS No. 2837-89-0	March 18, 1991	September 12, 1991

Exempt Compound	Date of Federal Exemption	Date Exempt in Illinois
1-chloro-4-(trifluoromethyl)benzene Alternative names: <i>p</i> -chlorobenzotrifluoride, PCBTF CAS No. 98-56-6	October 5, 1994	July 12, 1995
(1E)-1-chloro-3,3,3-trifluoroprop-1-ene Alternative name: Solstice 1233zd(E) CAS No. 102687-65-0	February 15, 2013	November 21, 2013
1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-(trifluoromethyl)pentane Alternative names: HFE-7300, L-14787 CAS No. 132182-92-4	January 18, 2007	January 16, 2008
1,1,1,2,3,4,4,5,5,5-decafluoropentane Alternative name: HFC 43-10mee CAS No. 138495-42-8	October 8, 1996	May 15, 1997
dichlorodifluoromethane Alternative name: CFC-12 CAS No. 75-71-8	July 22, 1980	December 22, 1987
1,1-dichloro-1-fluoroethane Alternative name: HCFC-141b CAS No. 1717-00-6	January 18, 1989	October 18, 1989
dichloromethane Alternative name: methylene chloride CAS No. 75-09-2	July 8, 1977	December 30, 1982
1,3-dichloro-1,1,2,2,3-pentafluoropropane Alternative name: HCFC-225cb CAS No. 507-55-1	October 8, 1996	May 15, 1997
3,3-dichloro-1,1,1,2,2-pentafluoropropane Alternative name: HCFC-225ca CAS No. 422-56-0	October 8, 1996	May 15, 1997
1,2-dichlorotetrafluoroethane Alternative name: CFC-114 CAS No. 76-14-2	July 22, 1980	December 22, 1987
1,1-dichloro-2,2,2-trifluoroethane Alternative name: HCFC-123 CAS No. 306-83-2	January 18, 1989	October 18, 1989
1,2-dichloro-1,1,2-trifluoroethane Alternative name: HCFC-123a CAS No. 354-23-4	August 22, 1997	June 22, 1998

Exempt Compound	Date of Federal Exemption	Date Exempt in Illinois
1,1-difluoroethane Alternative name: HFC-152a CAS No. 75-37-6	March 18, 1991	September 12, 1991
difluoromethane Alternative name: HFC-32 CAS No. 75-10-5	August 22, 1997	June 22, 1998
1-(difluoromethoxy)-2-[(difluoromethoxy)-difluoromethoxy]-1,1,2,2-tetrafluoroethane Alternative names: H-Galden 1040X, HFE-43-10pccc124 Structural formula: $\text{CHF}_2\text{OCF}_2\text{OCF}_2\text{CF}_2\text{OCHF}_2$ CAS No. 188690-77-9)	February 15, 2013	November 21, 2013
2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane Structural formula: $(\text{CF}_3)_2\text{CFCF}_2\text{OCH}_3$ CAS No. 163702-08-7	August 22, 1997	June 22, 1998
dimethyl carbonate Alternative name: methyl carbonate CAS No. 616-38-6	January 21, 2009	January 11, 2010
1,1-dimethylethyl acetate Alternative name: <i>tert</i> -butyl acetate CAS No. 540-88-5	November 29, 2004	May 23, 2005
ethane CAS No. 74-84-0	July 8, 1977	August 23, 1979
2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane Structural formula: $(\text{CF}_3)_2\text{CFCF}_2\text{OC}_2\text{H}_5$ CAS No. 163702-06-5	August 22, 1997	June 22, 1998
3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)hexane Alternative name: HFE-7500 CAS No. 297730-93-9	November 29, 2004	May 23, 2005
1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane Alternative name: HFE-7200 Structural formula: $\text{C}_4\text{F}_9\text{OC}_2\text{H}_5$ CAS No. 163702-05-4	August 22, 1997	June 22, 1998

Exempt Compound	Date of Federal Exemption	Date Exempt in Illinois
fluoroethane Alternative names: ethylfluoride, HFC-161 CAS No. 353-36-3	August 22, 1997	June 22, 1998
1,1,1,2,2,3,3-heptafluoro-3-methoxypropane Alternative name: HFE-7000 Structural formula: n-C ₃ F ₇ OCH ₃ CAS No. 375-03-1	November 29, 2004	May 23, 2005
1,1,1,2,3,3,3-heptafluoropropane Alternative name: HFC-227ea CAS No. 431-89-0	November 29, 2004	May 23, 2005
1,1,1,2,3,3-hexafluoropropane Alternative name: HFC-236ea CAS No. 431-63-0	August 22, 1997	June 22, 1998
1,1,1,3,3,3-hexafluoropropane Alternative name: HFC-236fa CAS No. 690-39-1	August 22, 1997	June 22, 1998
methane CAS No. 74-82-8	July 8, 1977	August 23, 1979
methylated siloxane compounds: cyclic, branched, or linear completely-methylated siloxanes	October 5, 1994	July 12, 1995
4-methyl-1,3-dioxolan-2-one Alternative name: propylene carbonate CAS No. 108-32-7	January 21, 2009	January 11, 2010
methyl ethanoate Alternative name: methyl acetate CAS No. 79-20-9	April 9, 1998	June 22, 1998
methyl methanoate Alternative name: methyl formate Structural formula: HCOOCH ₃ CAS No. 107-31-3	November 29, 2004	May 23, 2005
1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane Alternative name: HFE-7100 Structural formula: C ₄ F ₉ OCH ₃ CAS No. 163702-07-6	August 22, 1997	June 22, 1998
1,1,1,3,3-pentafluorobutane Alternative name: HFC-365mfc CAS No. 406-58-6	August 22, 1997	June 22, 1998

Exempt Compound	Date of Federal Exemption	Date Exempt in Illinois
pentafluoroethane Alternative name: HFC-125 CAS No. 354-33-6	March 18, 1991	September 12, 1991
1,1,1,2,3-pentafluoropropane Alternative name: HFC-245eb CAS No. 431-31-2	August 22, 1997	June 22, 1998
1,1,1,3,3-pentafluoropropane Alternative name: HFC-245fa CAS No. 460-73-1	August 22, 1997	June 22, 1998
1,1,2,2,3-pentafluoropropane Alternative name: HFC-245ca CAS No. 679-86-7	August 22, 1997	June 22, 1998
1,1,2,3,3-pentafluoropropane Alternative name: HFC-245ea CAS No. 24270-66-4	August 22, 1997	June 22, 1998
perfluoroalkane compounds: cyclic, branched, or linear, completely fluorinated alkanes	March 18, 1991	September 12, 1991
perfluoro ether compounds: cyclic, branched, or linear, completely fluorinated ethers with no unsaturations	March 18, 1991	September 12, 1991
perfluoro tertiary amine compounds: cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations	March 18, 1991	September 12, 1991
perfluoro organosulfur compounds: sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine	March 18, 1991	September 12, 1991
propan-2-one Alternative names: acetone, dimethylketone CAS No. 67-64-1	June 16, 1995	October 19, 1995
tetrachloroethene Alternative names: tetrachloroethylene, perchloroethylene, tetrachloroethylene CAS No. 127-18-4	February 7, 1996	February 6, 1997

Exempt Compound	Date of Federal Exemption	Date Exempt in Illinois
(1E)-1,3,3,3-tetrachloropro-1-pene Alternative name: <i>trans</i> -1,3,3,3-Tetrachloro-propene, HFO-1234ze CAS No. 29118-24-9	June 22, 2012	January 24, 2013
1,1,2,2-tetrafluoroethane Alternative name: HFC-134 CAS No. 359-35-3	March 18, 1991	September 12, 1991
1,1,1,2-tetrafluoroethane Alternative name: HFC-134a CAS No. 811-97-2	January 18, 1989	October 18, 1989
2,3,3,3-tetrafluoropropene Alternative name: HFC-1234YF CAS 754-12-1	March 27, 2014	March 5, 2015
1,1,1-trichloroethane Alternative name: methyl chloroform CAS No. 71-55-6	July 8, 1977	December 30, 1982
trichlorofluoromethane Alternaitve name: CFC-11 CAS No. 75-69-4	July 22, 1980	December 22, 1987
1,1,2-trichloro-1,2,2-trifluoroethane Alternative names: CFC-113, Freon 113 CAS No. 76-13-1	July 8, 1977	December 22, 1987
1,1,1-trifluoroethane Alternative name: HFC-143a CAS No. 420-46-2	March 18, 1991	September 12, 1991
trifluoromethane Alternative name: HFC-23 CAS No. 75-46-7	July 22, 1980	December 22, 1987