

IDENTICAL-IN-SUBSTANCE RULEMAKING ADDENDUM
TO THE JULY 26, 2017 OPINION AND ORDER OF THE BOARD

Definition of VOM Update, USEPA Amendments (July 1, 2016
through December 31, 2016), R17-11 (July 26, 2017)

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The tables included in this addendum supplement the Board's July 26, 2017 opinion and order in the above-cited identical-in-substance rulemaking.

Table 1:
Deviations from the Text of the Federal Amendments

35 Ill. Adm. Code 211.7150(a), “1,1,2,2-tetra-fluoro-1-(2,2,2-trifluoro-ethoxy)ethane”; derived from 40 C.F.R. 51.100(s)(1), 1,1,2,2-tetra-fluoro-1-(2,2,2-trifluoro-ethoxy)ethane

Removed spaces to correct the format of the chemical name “1,1,2,2-tetrafluoro-1-(2,2,2-trifluoro-ethoxy)ethane” to “1,1,2,2-tetra-fluoro-1-(2,2,2-trifluoro-ethoxy)ethane”; added the hydrofluroether designation “HFE-347pcf2” and the registry number “CAS No. 406-78-0” in parentheses.

Table 2:
Board Housekeeping Amendments

35 Ill. Adm. Code 211.7150(a) preamble (USEPA, Agency, Board): Removed the last two sentences, “USEPA has excluded the listed negligibly-reactive compounds from the definition of VOM for purposes of VOM limitations or VOM content requirements. However, USEPA has required that certain of these compounds be considered VOM for purposes of recordkeeping, emissions reporting, and inventory requirements, as described in subsection (e) of this Section.”

Note: The Board intended these deletions in Definition of VOM Update, USEPA Amendments (January 1, 2016 through June 30, 2016), R17-2 (Jan. 19, 2017), when removing the conditions on exclusion of *tert*-butyl acetate, but failed to do so.

35 Ill. Adm. Code 211.7150(a), “(1E)-1-Chloro-3,3,3-trifluoroprop-1-ene” (USEPA, Agency, Board): Corrected the registry number “CAS No. 29118-24-9” to “CAS No. 102687-65-0.”

Note: This error arose in Definition of VOM Update, USEPA Amendments (January 1, 2016 through June 30, 2016), R17-2 (Jan. 19, 2017).

Table 3:
Revisions to the Text of the Proposed Amendments Made in Final Adoption

35 Ill. Adm. Code 211 table of contents, 211.4720 heading (JCAR): Restored the entry inadvertently omitted.

35 Ill. Adm. Code 211.7150(a), generally (Board): Reformatted the chemical entries by adding a line break and indenting the parenthetical information on the following line (60 entries).

Table 4:
Requested Revisions to the Text of the Proposed Amendments
Not Made in Final Adoption

35 Ill. Adm. Code 211.7150(a), generally

Agency: Revert all IUPAC chemical names to the identifiers used by USEPA and remove the CAS numbers.

Response: As is discussed in the Board’s opinion and order, the Board prefers the greater precision and clarity of IUPAC names and CAS numbers.

35 Ill. Adm. Code 211.7150(a), “1-chloro-4-(trifluoromethyl)benzene”

JCAR: Add a hard hyphen between the parenthetical and “benzene.”

Response: While the Board will add optional soft hyphens between chemical moieties to facilitate breaking longer chemical names at the end of lines, a hard hyphen between moieties is not appropriate.

Table 5:
Listing of Excluded Chemicals by USEPA Designation,¹
with IUPAC Names, Alternative Names, and CAS Numbers

USEPA Name	IUPAC Name	Alternative Names	CAS Number
methane	methane	methyl hydride	74-82-8
ethane	ethane	methylmethane bimethyl ethyl hydride	74-84-0

¹ The chemical compounds are listed here in the order in which they appear in 40 C.F.R. § 51.100(s).

USEPA Name	IUPAC Name	Alternative Names	CAS Number
methylene chloride (dichloromethane)	dichloromethane	methylene chloride	75-09-2
1,1,1-trichloroethane (methyl chloroform)	1,1,1-trichloroethane	methyltrichloromethane	71-55-6
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113)	1,1,2-trichloro-1,2,2-trifluoroethane		76-13-1
trichlorofluoromethane (CFC-11)	trichlorofluoromethane	trichloromonfluoromethane	75-69-4
Dichlorodifluoromethane (CFC-12)	Dichlorodifluoromethane		75-71-8
chlorodifluoromethane (HCFC-22)	chlorodifluoromethane		75-45-6
trifluoromethane (HFC-23)	trifluoromethane	fluoroform	75-46-7
1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)	1,2-dichloro-1,1,2,2-tetrafluoroethane	cryofluorane 1,1,2,2-tetrafluoro-1,2-dichloroethane 1,2-dichlorotetrafluoroethane	76-14-2
chloropentafluoroethane (CFC-115)	chloropentafluoroethane	1-chloro-1,1,2,2,2-pentafluoroethane	76-15-3
1,1,1-trifluoro-2,2-dichloroethane (HCFC-123)	1,1-dichloro-2,2,2-trifluoroethane	2,2-dichloro-1,1,1-trifluoroethane 1,1,1-trifluoro-2,2-dichloroethane dichloro(trifluoromethyl)methane	306-83-2
1,1,1,2-tetrafluoroethane (HFC-134a)	1,1,1,2-tetrafluoroethane	norflurane	811-97-2
1,1-dichloro-1-fluoroethane (HCFC-141b)	1,1-dichloro-1-fluoroethane	dichlorofluoroethane	1717-00-6
1-chloro-1,1-difluoroethane (HCFC-142b)	1-chloro-1,1-difluoroethane	chlorodifluoroethane 1,1-difluoro-1-chloroethane chloroethylidene fluroide	75-68-3

USEPA Name	IUPAC Name	Alternative Names	CAS Number
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	2-chloro-1,1,1,2-tetrafluoroethane	1-chloro-1,2,2,2-tetrafluoroethane 1,1,1,2-tetrafluoro-2-chloroethane chlorotetrafluoroethane	2837-89-0
pentafluoroethane (HFC-125)	pentafluoroethane	1,1,1,2,2-pentafluoroethane	354-33-6
1,1,2,2-tetrafluoroethane (HFC-134)	1,1,2,2-tetrafluoroethane		359-35-3
1,1,1-trifluoroethane (HFC-143a)	1,1,1-trifluoroethane	methylfluoroform 1,1,1-trifluoroform	420-46-2
1,1-difluoroethane (HFC-152a)	1,1-difluoroethane	ethylidene difluoride ethylene fluoride	75-37-6
parachlorobenzotrifluoride (PCBTF)	1-chloro-4-(trifluoromethyl)benzene	4-chloro- α,α,α -trifluorotoluene <i>(p</i> -chlorophenyl)trifluoromethane <i>p</i> -chlorobenzotrifluoride <i>p</i> -trifluoromethylphenyl chloride	98-56-6
Cyclic, branched, or linear completely methylated siloxanes	None	None	None
acetone	propan-2-one	methyl ketone	67-64-1
perchloroethylene (tetrachloroethylene)	tetrachloroethene	1,1,2,2-tetrachloroethylene	127-18-4
3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	1,1-dichloro-2,2,3,3,3-pentafluoropropane	3,3-dichloro-1,1,1,2,2-pentafluoropropane	422-56-0
1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	1,3-dichloro-1,1,2,2,3-pentafluoropropane	1,3-dichloro-1,2,2,3,3-pentafluoropropane	507-55-1
1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee)	1,1,1,2,2,3,4,5,5,5-decafluoropentane	2H,3H-decafluoropentane 2,3-dihydroperfluoropentane	138495-42-8
difluoromethane (HFC-32)	difluoromethane	methylene difluoride	75-10-5

USEPA Name	IUPAC Name	Alternative Names	CAS Number
ethylfluoride (HFC-161)	fluoroethane	ethyl fluoride	353-36-6
1,1,1,3,3-hexafluoropropane (HFC-236fa)	1,1,1,3,3-hexafluoropropane	2,2-dihydroperfluoropropane bistrifluoromethylmethane	690-39-1
1,1,2,2,3-pentafluoropropane (HFC-245ca)	1,1,2,2,3-pentafluoropropane		679-86-7
1,1,2,3,3-pentafluoropropane (HFC-245ea)	1,1,2,3,3-pentafluoropropane		24270-66-4
1,1,1,2,3-pentafluoropropane (HFC-245eb)	1,1,1,2,3-pentafluoropropane		431-31-2
1,1,1,3,3-pentafluoropropane (HFC-245fa)	1,1,1,3,3-pentafluoropropane		460-73-1
1,1,1,2,3,3-hexafluoropropane (HFC-236ea)	1,1,1,2,3,3-hexafluoropropane		431-63-0
1,1,1,3,3-pentafluorobutane (HFC-365mfc)	1,1,1,3,3-pentafluorobutane		406-58-6
chlorofluoromethane (HCFC-31)	chlorofluoromethane	methylene chloride fluoride	593-70-4
1-chloro-1-fluoroethane (HCFC-151a)	1-chloro-1-fluoroethane	1-chlorofluoroethane	1615-75-4
1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a)	1,2-dichloro-1,1,2-trifluoroethane	1,1,2-trifluoro-1,2-dichloroethane	354-23-4
1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane ($\text{C}_4\text{F}_9\text{OCH}_3$ or HFE-7100)	1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane	methyl perfluorobutyl ether	163702-07-6
2-(difluoromethoxy-methyl)-1,1,1,2,3,3,3-heptafluoropropane (($\text{CF}_3)_2\text{CFCF}_2\text{OCH}_3$)	2-(difluoromethoxy-methyl)-1,1,1,2,3,3,3-heptafluoropropane	methyl perfluoroisobutyl ether	163702-08-7
1-ethoxy-1,1,2,2,3,3,4,4-nonafluorobutane ($\text{C}_4\text{F}_9\text{OC}_2\text{H}_5$ or HFE-7200)	1-ethoxy-1,1,2,2,3,3,4,4-nonafluorobutane	ethyl perfluorobutyl ether	163702-05-4

USEPA Name	IUPAC Name	Alternative Names	CAS Number
2-(ethoxydifluoro-methyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF ₃) ₂ CFCF ₂ OC ₂ H ₅)	2-(ethoxydifluoro-methyl)-1,1,1,2,3,3,3-heptafluoropropane	ethyl perfluoroisobutyl ether	163702-06-5
methyl acetate	methyl acetate methyl ethanoate	acetic acid methyl ester	79-20-9
1,1,1,2,2,3,3-hepta-fluoro-3-methoxy-propane (n-C ₃ F ₇ OCH ₃ , HFE-7000)	1,1,1,2,2,3,3-hepta-fluoro-3-methoxy-propane	perfluoropropyl methyl ether	375-03-1
3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodeca-fluoro-2-(trifluoro-methyl)hexane (HFE-7500)	3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodeca-fluoro-2-(trifluoro-methyl)hexane	3-ethoxyperfluoro(2-methylhexane)	297730-93-9
1,1,1,2,3,3,3-hepta-fluoropropane (HFC 227ea)	1,1,1,2,3,3,3-hepta-fluoropropane	apaflurane 2-hydroheptafluoro-propane 2-hydroperfluoro-propane 2H-heptafluoropropane	431-89-0
methyl formate (HCOOCH ₃)	methyl formate methyl methanoate	formic acid methyl ester	107-31-3
1,1,1,2,2,3,4,5,5,5-deca-fluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300)	1,1,1,2,2,3,4,5,5,5-deca-fluoro-3-methoxy-4-(trifluoromethyl)-pentane		132182-92-4
propylene carbonate	4-methyl-1,3-dioxolan-2-one	4-methyl-2-oxo-1,3-dioxolane carbonic acid cyclic propylene ester 1,2-propanediol carbonate 1,2-propanediyl carbonate 1-methylethylene carbonate	108-32-7
dimethyl carbonate	dimethyl carbonate dimethyl carbonic acid ester	methyl carbonate	616-38-6

USEPA Name	IUPAC Name	Alternative Names	CAS Number
<i>trans</i> -1,3,3,3-tetrafluoropropene	(1 <i>E</i>)-1,3,3,3-tetrafluoropropene		29118-24-9
HCF ₂ OCF ₂ H (HFE-134)	(difluoromethoxy)-difluoromethane	oxybis(difluoromethane)	1691-17-4
HCF ₂ OCF ₂ OCF ₂ H (HFE-236cal2)	bis(difluoromethoxy)-difluoromethane		78522-47-1
HCF ₂ OCF ₂ CF ₂ OCF ₂ H (HFE-338pcc13)	1,2-bis(difluoromethoxy)-1,1,2,2-tetrafluoroethane		188690-78-0
HCF ₂ OCF ₂ OCF ₂ CF ₂ OCF ₂ H (H-Galden 1040x or H-Galden ZT 130 (or 150 or 180))	1-(difluoromethoxy)-2-((difluoromethoxy)-difluoromethoxy)-11,22-tetrafluoroethane	HFE 43-10pccc124	188690-77-9
<i>trans</i> 1-chloro-3,3,3-trifluoroprop-1-ene	(1 <i>E</i>)-1-chloro-3,3,3-trifluoroprop-1-ene		102687-65-0
2,3,3,3-tetrafluoropropene	2,3,3,3-tetrafluoroprop-1-ene	HFC-1234yf	754-12-1
2-amino-2-methyl-1-propanol	2-amino-2-methylpropan-1-ol	2-amino-2-methylpropanol aminomethyl propanol 2-aminoisobutanol isobutanol-2-amine β -aminoisobutanol 2-hydroxymethyl-2-propylamine 2-methyl-2-amino-propanol hydroxy- <i>tert</i> -butyl-amine AMP	124-68-5
t-butylacetate	1,1-dimethylethyl acetic acid ester	<i>tert</i> -butyl acetic acid ester	540-88-5
1,1,2,2-tetrafluoro-1-(2,2,2-trifluoroethoxy)-ethane	1,1,2,2-tetrafluoro-1-(2,2,2-trifluoroethoxy)-ethane	HFE-347pcf2	406-78-0
cyclic, branched, or linear, completely fluorinated alkanes	None	None	None

USEPA Name	IUPAC Name	Alternative Names	CAS Number
cyclic, branched, or linear, completely fluorinated ethers with no unsaturations	None	None	None
cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations	None	None	None
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine	None	None	None