

**TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE**

1

1100 Air Quality Management Section

1101 Definitions and Administrative Principles

09/11/1999

xx/xx/2009

2.0 Definitions

“Volatile organic compounds” (Also denoted as VOCs) means any carbon-containing compound, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. This includes any such organic compound other than the following, which have been determined to have negligible photochemical reactivity:

- methane;
- ethane;
- methyl chloroform (1,1,1-trichloroethane);
- CFC-113 (1,1,2-trichloro-1,2,2-trifluoromethane);
- methylene chloride (dichloromethane);
- CFC-11 (trichlorofluoromethane);
- CFC-12 (dichlorodifluoromethane);
- HCFC-22 (chlorodifluoromethane);
- HFC-23 (trifluoromethane);
- CFC-114 (1,2-dichloro-1,1,2,2-tetrafluoroethane);
- CFC-115 (chloropentafluoroethane);
- HCFC-123 (1,1,1-trifluoro-2,2-dichloroethane);
- HFC-134a (1,1,1,2-tetrafluoroethane);
- HCFC-141b (1,1-dichloro-1-fluoroethane);
- HCFC-142b (1-chloro-1,1-difluoroethane);
- HCFC-124 (2-chloro-1,1,1,2-tetrafluoroethane);
- HFC-125 (pentafluoroethane);
- HFC-134 (1,1,2,2-tetrafluoroethane);
- HFC-143a (1,1,1-trifluoroethane);
- HFC-152a (1,1-difluoroethane);
- parachlorobenzotrifluoride (PCBTF);
- cyclic, branched, or linear completely methylated siloxanes;
- acetone;
- perchloroethylene (tetrachloroethylene);
- HCFC-225ca (3,3-dichloro-1,1,1,2,2-pentafluoropropane);
- HCFC-225cb (1,3-dichloro-1,1,2,2,3-pentafluoropropane);
- HFC-43-10mee (1,1,1,2,3,4,4,5,5,5-decafluoropentane);
- HFC-32 (difluoromethane);
- HFC-161 (ethylfluoride);
- HFC-236fa (1,1,1,3,3,3-hexafluoropropane);

**TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE**

2

- HFC-245ca (1,1,2,2,3-pentafluoropropane);
- HFC-245ea (1,1,2,3,3-pentafluoropropane);
- HFC-245eb (1,1,1,2,3-pentafluoropropane);
- HFC-245fa (1,1,1,3,3-pentafluoropropane);
- HFC-236ea (1,1,1,2,3,3-hexafluoropropane);
- HFC-365mfc (1,1,1,3,3-pentafluorobutane);
- HCFC-31 (chlorofluoromethane);
- HCFC-151a (1-chloro-1-fluoroethane);
- HCFC-123a (1,2-dichloro-1,1,2-trifluoroethane);
- 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane ($C_4F_9OCH_3$) ($C_4F_9OCH_3$);
- 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ($(CF_3)_2CFCF_2OCH_3$) ($(CF_3)_2CFCF_2OCH_3$);
- 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane ($C_4F_9OC_2H_5$) ($C_4F_9OC_2H_5$);
- 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ($(CF_3)_2CFCF_2OC_2H_5$) ($(CF_3)_2CFCF_2OC_2H_5$);
- methyl acetate; and
- HFE-7000 (1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane) ($n-C_3F_7OCH_3$);
- HFE-7500 [3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane];
- HFC-227ea (1,1,1,2,3,3,3-heptafluoropropane);
- methyl formate;
- HFE-7300 (1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane);
- t-butyl acetate*;
- propylene carbonate;
- dimethyl carbonate; and
- perfluorocarbon compounds which fall into these classes:
 - Cyclic, branched, or linear, completely fluorinated alkanes.
 - Cyclic, branched, or linear, completely fluorinated ethers with no unsaturated bonds.
 - Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturated bonds.
 - Sulfur containing perfluorocarbons with no unsaturated bonds and with sulfur bonds only to carbon and fluorine.

* t-butyl acetate is a VOC for purposes of all recordkeeping, emissions reporting, photo-chemical dispersion modeling and inventory requirements which apply to VOC and shall be uniquely identified in emission reports, but is not a VOC for purposes of VOC emissions limitations or VOC content requirements.