

Methyl 2,2-difluoro-2-(fluorosulfonyl)acetate

FSO₂CF₂COOCH₃

Purity	96%
CAS Number	680-15-9
Molecular Formula	C ₃ H ₃ F ₃ O ₄ S
Molecular Weight	192.11

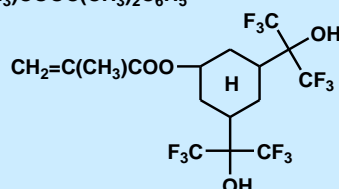
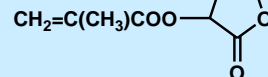
Raw material for methacrylic ester monomers with fluoroalkylsulfonic acid groups. Photo-acid-generating monomer for polymer-type EUV photoresists with low equipment contamination; CH₂=C(CH₃)COOCH₂CF₂SO₃⁻/S⁺ [C₆H₄O-(CH₂CH₂O)₂CH₃]₃.

Mixing example	Polymer	Cation; X	E ₀ (EUV) mJ/cm ²	Residual gas amount
Comparative example	CPEX-1A	+S(C ₆ H ₅) ₃	4.9	7.90E+14
Example	PEX-7	S ⁺ [C ₆ H ₄ O-(CH ₂ CH ₂ O) ₂ CH ₃] ₃	2.1	1.50E+14

Application

Polymer	M-1	M-2	M-3	M-4
CPEX-1A	32.5mol%	47.5mol%	12.4mol%	7.5mol%
PEX-7	32.8mol%	46.7mol%	13.2mol%	7.3mol%

M-1

M-3

M-2

M-4

EP2,472,323 A2

Raw material of CH₂=C(CH₃)COOCH₂CH₂CHFCF₂SO₃⁻/S(C₆H₅)₃⁺ ;
CF₂=CFCH₂CH₂Br (CAS-RN; 10493-44-4) is also available.

J. Fluorine Chem., 129, 2008, p607-612

Properties:

Appearance	Liquid
Boiling point, °C	117-118
Melting point, °C	
Flash point, °C	

Capacity:	500kg/month
Packing:	-
UN, PG:	-