>>**Entry Name: Fluoropropanedioic acid,** 9CI
**Synonym(s):** Fluoromalonic acid

**CAS Registry Number:** 473-87-0
**Related CAS Registry Numbers(s):** 3107-39-9
HOOCCHFCOOH

**Molecular Formula:** $C_3H_3FO_4$
**Molecular Weight:** 122.053
**Accurate Mass:** 122.001538
**Percentage Composition:** C 29.52%; H 2.48%; F 15.57%; O 52.43%
**Physical Description:** Cryst. ($Et_2O$)
**Melting Point:** Mp 135.8-136.5°

>>**Derivative:** Hemi-K salt

**CAS Registry Number:** 80621-11-0
**Physical Description:** Cryst. + $1H_2O$
**Melting Point:** Mp 180 dec.°
**Hazard & Toxicity:** $LD_{50}$ (rat, scu) 60 mg/kg

>>**Derivative:** Mono-Et ester (*R*-)

**CAS Registry Number:** 94721-39-8
**Molecular Formula:** $C_5H_7FO_4$
**Molecular Weight:** 150.106
**Accurate Mass:** 150.032838
**Percentage Composition:** C 40.01%; H 4.70%; F 12.66%; O 42.63%
**Physical Description:** Liq.
**Boiling Point:** $Bp_{0.4}$ 103-106°
**Optical Rotation:** $[\alpha]_D$ +13.9 (c, 2.12 in MeOH) (>99% ee)

>>**Derivative:** Di-Me ester

**CAS Registry Number:** 344-14-9
**Molecular Formula:** $C_5H_7FO_4$
**Molecular Weight:** 150.106
**Accurate Mass:** 150.032838
**Percentage Composition:** C 40.01%; H 4.70%; F 12.66%; O 42.63%
**Physical Description:** Liq.
**Boiling Point:** $Bp_{45}$ 111-112°. $Bp_{15}$ 82-85°

>>**Derivative:** Di-Et ester

**CAS Registry Number:** 685-88-1
**Molecular Formula:** $C_7H_{11}FO_4$
**Molecular Weight:** 178.16
**Accurate Mass:** 178.064138
**Percentage Composition:** C 47.19%; H 6.22%; F 10.66%; O 35.92%
**Physical Description:** Liq.
**Boiling Point:** $Bp_{20}$ 110-111°. $Bp_{12}$ 94-96°
**Hazard & Toxicity:** $LD_{50}$ (rat, scu) 70 mg/kg

**Aldrich:** 28558-7
**Fluka:** 47105
**Sigma:** D8634

>>**Derivative:** Dibenzyl ester

**CAS Registry Number:** 133384-81-3
**Molecular Formula:** $C_{17}H_{15}FO_4$
**Molecular Weight:** 302.301
**Accurate Mass:** 302.095438
**Percentage Composition:** C 67.54%; H 5.00%; F 6.28%; O 21.17%
**Melting Point:** Mp 52-53°