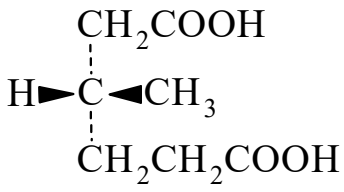
>>**Entry Name: 3-Methylhexanedioic acid,** 9CI, 8CI
Synonym(s): 2-Methylbutane-1,4-dicarboxylic acid. 3-Methyladipic acid



(*R*)-*form*

CAS Registry Number: 3058-01-3

Molecular Formula: $C_7H_{12}O_4$
Molecular Weight: 160.169
Accurate Mass: 160.07356
Percentage Composition: C 52.49%; H 7.55%; O 39.96%

Aldrich: M2740-9
Sigma: M5137

>>**Variant:** (*R*)-form

CAS Registry Number: 623-82-5
Molecular Formula: $C_7H_{12}O_4$
Molecular Weight: 160.169
Accurate Mass: 160.07356
Percentage Composition: C 52.49%; H 7.55%; O 39.96%
Use/Importance: Comonomer in liq. cryst. polyesters
Physical Description: Cryst. (C_6H_6)
Melting Point: Mp 93-94.5°
Boiling Point: Bp_{30} 230°. Bp_8 205°
Optical Rotation: $[\alpha]_D^{26}$+11.67 (c, 1.2 in $CHCl_3$) (100% ee)
Solubility: Sol. H_2O, EtOH, $CHCl_3$, EtOAc
Aldrich: 36891-1
Fluka: 65510

>>**Derivative:** 6-Mono-Et ester

Molecular Formula: $C_9H_{16}O_4$
Molecular Weight: 188.223
Accurate Mass: 188.10486
Percentage Composition: C 57.43%; H 8.57%; O 34.00%
Boiling Point: Bp_{11} 164-166°

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

Molecular Formula: $C_{11}H_{20}O_4$
Molecular Weight: 216.277
Accurate Mass: 216.13616
Percentage Composition: C 61.09%; H 9.32%; O 29.59%
Boiling Point: Bp_{746} 257°. Bp_{10} 126.5°

>>**Derivative:** Dichloride

Molecular Formula: $C_7H_{10}Cl_2O_2$
Molecular Weight: 197.06
Accurate Mass: 196.005784
Percentage Composition: C 42.67%; H 5.11%; Cl 35.98%; O 16.24%
Boiling Point: Bp_{10} 117-119°

>>**Derivative:** Diamide

Molecular Formula: $C_7H_{14}N_2O_2$
Molecular Weight: 158.2
Accurate Mass: 158.105528
Percentage Composition: C 53.15%; H 8.92%; N 17.71%; O 20.23%
Physical Description: Cryst. (H_2O)
Melting Point: Mp 191°
Solubility: Sol. H_2O; insol. Et_2O