CAS Registry Number: 101-94-0

Molecular Formula: $C_{15}H_{14}O_2$
Molecular Weight: 226.274
Accurate Mass: 226.09938
Percentage Composition: C 79.62%; H 6.24%; O 14.14%
Use/Importance: Used in perfumery
Physical Description: Cryst. with floral odour and sweet honey-like taste
Melting Point: Mp 76° (EtOH)
Boiling Point: Bp 310°
Aldrich: W30771-8
Rare Chemicals Library: S35613-1

>>**Derivative:** 2-Phenylethyl ester
Synonym(s): Phenethyl phenylacetate. 2-Phenylethyl benzeneacetate. FEMA 2866

CAS Registry Number: 102-20-5

Molecular Formula: $C_{16}H_{16}O_2$
Molecular Weight: 240.301
Accurate Mass: 240.11503
Percentage Composition: C 79.97%; H 6.71%; O 13.32%
Use/Importance: Used in perfumery and in imitation fruit flavours
Physical Description: Needles (MeOH) with hyacinth-like odour
Melting Point: Mp 28°
Boiling Point: Bp 325°. Bp_{28} 210°

>>**Derivative:** Fluoride
Synonym(s): Benzeneacetyl fluoride, 9Cl. Phenacetyl fluoride

CAS Registry Number: 370-84-3
Molecular Formula: C_8H_7FO
Molecular Weight: 138.141
Accurate Mass: 138.048093
Percentage Composition: C 69.56%; H 5.11%; F 13.75%; O 11.58%
Physical Description: Oil
Boiling Point: Bp_{17} 88-89°

>>**Derivative:** Chloride
Synonym(s): Benzeneacetyl chloride, 9Cl. Phenacetyl chloride

CAS Registry Number: 103-80-0
Molecular Formula: C_8H_7ClO
Molecular Weight: 154.595
Accurate Mass: 154.018542
Percentage Composition: C 62.15%; H 4.56%; Cl 22.93%; O 10.35%
Physical Description: Oil
Boiling Point: Bp_{250} 170°. Bp_{12} 100°
Density: d_4^{20} 1.168
Hazard & Toxicity: Irritant. Lachrymator
Aldrich: P1675-3
Fluka: 77830

>>**Derivative:** Bromide
Synonym(s): Benzeneacetyl bromide, 9Cl. Phenacetyl bromide

CAS Registry Number: 22535-03-1
Molecular Formula: C_8H_7BrO
Molecular Weight: 199.047
Accurate Mass: 197.988026
Percentage Composition: C 48.27%; H 3.54%; Br 40.14%; O 8.04%
Physical Description: Oil
Boiling Point: Bp_{50} 150-155°