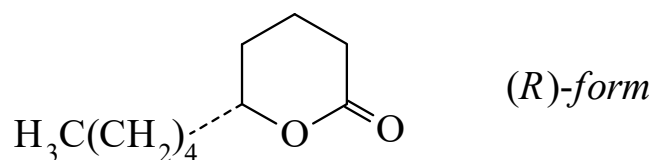




>>Entry Name: Tetrahydro-6-pentyl-2*H*-pyran-2-one, 9CI

ENTRY UNDER REVIEW

Synonym(s): δ -Decalactone. 5-Decanolide. 5-Hydroxydecanoic acid lactone. FEMA 2361



CAS Registry Number: 705-86-2

Molecular Formula: $\text{C}_{10}\text{H}_{18}\text{O}_2$

Molecular Weight: 170.251

Accurate Mass: 170.13068

Percentage Composition: C 70.55%; H 10.66%; O 18.80%

Biological Source: Produced by *Sporobolomyces odorus* and *Cladosporium suaveolens* cultures. Present in coconut oil, butter oil, apricots, peaches, cheese, cane sugar, pork fat, margarine, lavender oil, and other substances.

Use/Importance: Fragrance raw material and flavouring agent

Biological Use/Importance: Phytotoxic and antifungal agent. Shows antibacterial activity against *Streptococcus faecalis*. Low oral tox.

Physical Description: Oil with peach odour and taste

Other Data: Low oral toxicity

Hazard & Toxicity: Eye and skin irritant

Aldrich: 29806-9

>>Variant: (*R*)-form

CAS Registry Number: 2825-91-4

Molecular Formula: $\text{C}_{10}\text{H}_{18}\text{O}_2$

Molecular Weight: 170.251

Accurate Mass: 170.13068

Percentage Composition: C 70.55%; H 10.66%; O 18.80%

Physical Description: Liq.

Boiling Point: Bp₅ 160-170°

Optical Rotation: $[\alpha]_{\text{D}}$ +48.2 (c, 3.69 in MeOH). $[\alpha]_{\text{D}}$ +60.2 (c, 1.74 in THF)

>>Variant: (*S*)-form

CAS Registry Number: 59285-67-5

Molecular Formula: $\text{C}_{10}\text{H}_{18}\text{O}_2$

Molecular Weight: 170.251

Accurate Mass: 170.13068

Percentage Composition: C 70.55%; H 10.66%; O 18.80%

Physical Description: Liq.

Optical Rotation: $[\alpha]_{\text{D}}$ -60.2

>>Variant: ($\pm$)-form

CAS Registry Number: 35221-79-5

Molecular Formula: $\text{C}_{10}\text{H}_{18}\text{O}_2$

Molecular Weight: 170.251

Accurate Mass: 170.13068

Percentage Composition: C 70.55%; H 10.66%; O 18.80%

Physical Description: Liq.

Melting Point: Mp -27°

Boiling Point: Bp_{0.2} 100-105°. Bp₃ 121-122°

Refractive Index: n_D²⁵ 1.4550 n_D²⁵ 1.4675

References: