α-Phellandrene
Item No. 23179

CAS Registry No.: 99-83-2
Formal Name: 2-methyl-5-(1-methylethyl)-1,3-cyclohexadiene
Synonyms: p-Mentha-1,5-diene, (±)-α-Phellandrene
MF: C_{10}H_{16}
FW: 136.2
Purity: ≥80%
Supplied as: An oil
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

α-Phellandrene is supplied as an oil. A stock solution may be made by dissolving the α-phellandrene in the solvent of choice. α-Phellandrene is soluble in organic solvents such as chloroform and benzene.

Description

α-Phellandrene is a cyclic monoterpene that has been found in various plants, including Cannabis, and has diverse biological activities. In vivo, α-phellandrene (50, 100, and 200 mg/kg, p.o.) reduces carrageenan-induced neutrophil accumulation and leukocyte rolling and adhesion as well as inhibits production of the pro-inflammatory cytokines TNF-α and IL-6 in a rat model of air pouch inflammation. It decreases spleen weight and increases macrophage phagocytosis and natural killer (NK) cell cytotoxic activity in a murine WEHI-3 leukemia model. α-Phellandrene has antinociceptive effects in mouse models of pain, reducing acetic acid-induced writhing, paw licking in the capsaicin test, and glutamate-induced licking and biting behavior, as well as increases the paw withdrawal threshold following carrageenan-induced inflammation.

References