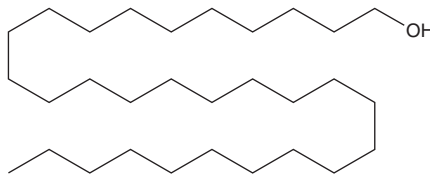


PRODUCT INFORMATION

n-Triacontanol

Item No. 88840

CAS Registry No.: 593-50-0
Formal Name: 1-triacontanol
Synonyms: Melissyl alcohol, Myricyl alcohol, TRIA, Triacontanol, Triacontyl alcohol
MF: $C_{30}H_{62}O$
FW: 438.8
Purity: $\geq 98\%$
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥ 4 years



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

Laboratory Procedures

n-Triacontanol is supplied as a crystalline solid. A stock solution may be made by dissolving the n-triacontanol in the solvent of choice, which should be purged with an inert gas. n-Triacontanol is soluble in the organic solvent chloroform at a concentration of approximately 1.7 mg/ml.

Description

n-Triacontanol is a plant growth regulator originally isolated from alfalfa that has plant growth-stimulating and antioxidant activities.¹⁻³ It increases the dry weight of barley, corn, and tomato seedlings in greenhouse pot tests when applied topically at concentrations of 0.001 and 0.01 mg/L.¹ n-Triacontanol (1 μ M) increases the photosynthetic rate in isolated pea protoplasts and pea seedlings.² It increases photosynthesis in pea protoplasts when used at a concentration of 1.56 μ M. n-Triacontanol is also an inhibitor of 1-lipoxygenase (1-LO; K_i = 5 μ M for the soybean enzyme) and decreases the levels of thiobarbituric acid reactive substances (TBARS), a marker for lipid peroxidation, in isolated chloroplasts from spinach leaves when used at a concentration of 120 nM.³ Formulations containing n-triacontanol have been used as plant growth regulators in agriculture.

References

1. Ries, S., Wert, V., Sweeley, C.C., *et al.* Triacontanol: A new naturally occurring plant growth regulator. *Science* **195**(4284), 1339-1341 (1977).
2. Ivanov, A.G. and Angelov, M.N. Photosynthesis response to triacontanol correlates with increased dynamics of mesophyll protoplast and chloroplast membranes. *Plant Growth Regul.* **21**, 145-152 (1997).
3. Ramanarayan, K., Bhat, A., Shripathi, V., *et al.* Triacontanol inhibits both enzymatic and nonenzymatic lipid peroxidation. *Phytochemistry* **55**(1), 59-66 (2000).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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