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Produktinformation

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Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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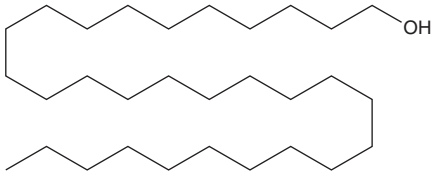
PRODUCT INFORMATION

n-Triacontanol

Item No. 88840

CAS Registry No.:	593-50-0
Formal Name:	1-triacontanol
Synonyms:	FOH 30:0, Melissyl alcohol, Myricyl alcohol, TRIA, Triacontanol, Triacontyl alcohol
MF:	$C_{30}H_{62}O$
FW:	438.8
Purity:	≥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 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 µM) 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 µM. n-Triacontanol is also an inhibitor of 1-lipoxygenase (1-LO; K_i = 5 µM 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).

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