

PRODUCT INFORMATION

9(Z)-Tricosene

Item No. 13236

CAS Registry No.: 27519-02-4

Formal Name: 9Z-tricosene

Synonyms: Muscalure, cis-9-Tricosene

MF: C₂₃H₄₆

FW: 322.6

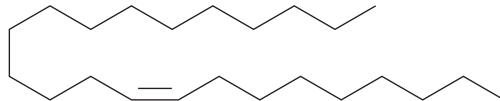
Purity: ≥90%

UV/Vis.: λ_{max}: 231 nm

Supplied as: A liquid

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

9(Z)-Tricosene is supplied as a liquid. Solvents such as acetone, ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 9(Z)-tricosene in acetone is approximately 10 mg/ml and approximately 20 mg/ml in ethanol, DMSO, and DMF.

Description

9(Z)-Tricosene is a pheromone released by insects, including *D. melanogaster*, *M. domestica* (house fly), and *A. mellifera* L. (honey bee).¹⁻³ In *Drosophila*, it induces aggregation behavior and is an oviposition guidance cue for females.¹ Due to its aggregation-inducing activity, it is used as a bait pesticide to attract insects to traps.⁴ The mechanism of action in *Drosophila* is the activation of antennal basiconic Or7a receptors.¹ It is also highly produced by honey bees during the waggle dance, which is a complex communication process used to alert nest-mates of the location and profitability of a food source.² When injected into a hive, 9(Z)-tricosene induces foraging behavior.

References

- Lin, C.-C., Prokop-Prigge, K.A., Preti, G., et al. Food odors trigger *Drosophila* males to deposit a pheromone that guides aggregation and female oviposition decisions. *Elife* **4**, e08688 (2015).
- Thom, C., Gilley, D.C., Hooper, J., et al. The scent of the waggle dance. *PLoS Biol.* **5(9)**, 1862-1867 (2007).
- Antony, C. and Jallon, J.-M. The chemical basis for sex recognition in *Drosophila melanogaster*. *J. Insect. Physiol.* **28(10)**, 873-880 (1982).
- Butler, S.M., Gerry, A.C., and Mullens, B.A. House fly (Diptera: muscidae) Activity near baits containing (Z)-9-tricosene and efficacy of commercial toxic fly baits on a southern California dairy. *J. Econ. Entomol.* **100(4)**, 1489-1495 (2007).

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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