



## Product Information Sheet

### H4000 (Z)-3-Hexenol

Synonym: cis-3-hexen-1-ol, leaf alcohol  
CAS: 928-96-1  
Formula: C<sub>6</sub>H<sub>12</sub>O  
Molecular Wt: 100.16 g/mol

#### Properties

Form: Liquid  
Appearance: Clear, Colorless to Light Yellow  
Application: Plant Defense Chemical  
Solubility: Slightly soluble in water  
Storage Temp: Room Temperature  
Other Notes: Plant Tissue Culture Tested, For Research Use Only



#### Application Notes

It has recently been shown that a compound formed in leaves (tomato), (Z)-3-hexenylvicianoside (HexVic) when artificially added to larvae, such as the common cutworm's (e.g. *Spodoptera litura*) diet will significantly reduce their growth (Sugimoto *et al.* 2014). HexVic's production in leaves was also shown to be increased through (Z)-3-hexenol diffusing into the air from neighboring tomato plants being attacked by herbivores. This net effect of (Z)-3-hexenol warning neighboring plants and thus producing a pesticide to affect cutworms growth is a significant plant defense mechanism especially since this effect is independent of known Jasmonate signaling pathways (Mescher and De Moraes 2014).

Please Note: While *PhytoTechnology Laboratories*™ tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

#### References

Merck 13, 4719

M.C. Mescher, and C.M. De Moraes (2014) Pass the ammunition. *Nature* Vol 510 pg. 221-222.

K. Sugimoto, K. Matsui, Y. Iijima, Y. Akakabe, S. Muramoto, R. Ozawa, M. Uefune, R. Sasaki, K. Alamgir, S. Akitake, T. Nobuke, I. Galis, K. Aoki, D. Shibata, and J. Takabayashi. (2014) Intake and transformation to a glycoside of (Z)-3-hexenol from infested neighbors reveals a mode of plant odor reception and defense. *PNAS* Vol. 111(19) pg 7144-7149