

# N O O T K A T O N E

**CAS N°:** 4674-50-4

**Empirical formula:** C<sub>15</sub>H<sub>22</sub>O

**Synonyms:** 5,6-Dimethyl-8-isopropenylbicyclo(4.4.0)dec-1-en-3-one  
 4a,5-Dimethyl-1,2,3,4,4a,5,6,7-octahydro-7-keto-3-isopropenylnaphthalene  
 4βH,5α-Eremophila-1(10),11-dien-2-one  
 4βH,5 α -Eremorphila-1(10),11-dien-2-one  
 (4R-(4 α,4a α,6β))-4,4a,5,6,7,8-Hexahydro-4,4a-dimethyl-6-(1-methylvinyl)naphthalen-2(3H)-one  
 4,4a,5,6,7,8-Hexahydro-6-isopropenyl-4,4a-dimethyl-2(3H)-naphthalenone  
 2(3H)-Naphthalenone, 4,4a,5,6,7,8-hexahydro-4,4a-dimethyl-6-(1-methyl-ethenyl)-, (4R,4aS,6R)-

**History:** Initial reviews: October 1980

Current revision date: August 2005

**Implementation date:** for new submissions\*: December 11, 2006  
for existing fragrance compounds\*: December 11, 2007

**Next review:** 2009

\* This date applies to the supply of fragrance compounds (formulas) only, not to the finished products in the marketplace.

## **STANDARD: SPECIFICATION**

### **RESTRICTIONS:**

#### **Limits in the finished product:**

##### Skin-contact products:

Leave-on products: Not applicable      Rinse-off products: Not applicable  
*including household cleaning products*

Non skin-contact products: Not applicable

#### **Note box:**

**Fragrance material specification:** Nootkatone used as a fragrance ingredient should be at least 98% pure, with a melting point of at least 32°C. Lower purity grades may not be used as a fragrance ingredient.

Methods for the determination of purity of nootkatone are provided on the IFRA website [www.ifraorg.org](http://www.ifraorg.org).

**Contribution from other sources:** None to consider

# NOOTKATONE

**Critical effect:**      **Sensitization**

**Rexpan Rationale / Conclusion:**

The RIFM Expert Panel reviewed the Standard on Nootkatone. After reviewing the critical effect data, the Panel concluded that only samples of Nootkatone that are at least 98% pure should be used. Lower purity grades may not be used as a fragrance ingredient. Sensitization was observed with the lower purity grades, but not with high purity material ( $\geq 98\%$  pure) samples of Nootkatone.

**References:**

Research Institute for Fragrance Materials, Inc., 1971. Sensitization and irritation study of nootkatone. Unpublished report from Givaudan, May 24, Report number 41820.

Research Institute for Fragrance Materials, Inc., 1977. Report on human maximization studies. RIFM report number 1702, June 6c.

Research Institute for Fragrance Materials, Inc., 1978. Report on human maximization studies. RIFM report number 1698, January 13a.

Research Institute for Fragrance Materials, Inc., 1979. Report on human maximization studies. RIFM report number 1775, September 11.

Research Institute for Fragrance Materials, Inc., 2005. Repeated insult patch test with nootkatone. Unpublished report from Bedoukian Research, Inc., May 11. Report number 46155

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