

# CINNAMYL NITRILE

**CAS N°:** 4360-47-8 ; 1885-38-7

**Empirical formula:** C<sub>9</sub>H<sub>7</sub>N

C<sub>6</sub>H<sub>5</sub>-CH=CH-CN

**Synonyms:** Cinnamonnitrile (mixed isomers)  
Cinnamic nitrile ; Cinnamonnitrile (E); trans-β-Phenylacrylonitrile ;  
2-Propenenitrile, 3-phenyl-, (E)-

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**History:** Initial reviews: Not applicable, **new Standard**

Current revision date: Not applicable

**Implementation date:** for new submissions\*: July 3, 2002

for existing fragrance compounds\*: July 3, 2003

**Next review date:** July 2007

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

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**STANDARD:** RESTRICTED

**Limits in the finished product:**

Skin contact products:	Non skin contact products: 1.25 %
Leave-on products: 0.125%	Purity: Not applicable
Rinse-off products: 0.125% <i>including household cleaning products</i>	Others: Not applicable

**Note box:**

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**Contribution from other sources:** None known

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**Critical effect:** Human skin sensitization

**CINNAMYL NITRILE****RIFM summaries:**

There are two HRIPT's with a 2.5% solution of cinnamyl nitrile in alcohol SDA 39C, which show that the material is a sensitiser (RIFM, 1965; 1980). In two different groups of subjects tested with a solution of 1.25% cinnamyl nitrile in alcohol SDA 39C, no sensitisation reactions were induced (RIFM, 1966; 1977). Based on the results of these studies, the NOEL was determined to be 1.25%. Using the 10-fold uncertainty factor, the maximum skin level concentration calculates to be 0.125%. For non-skin contact products, the concentration should not exceed 1.25 %.

**Rexpan Rationale / Conclusion:**

The sensitisation data for cinnamyl nitrile were reviewed by the RIFM Expert Panel, which concluded that the NOEL for sensitisation was 1.25%. These data support a maximum dermal skin level of 0.125%.

**References:**

Research Institute for Fragrance Materials, Inc. (1965). Repeated insult patch test of cinnamyl nitrile, methyl 2-octynoate and ethyl alcohol in human subjects. Unpublished report from IFF Incorporated, 1 April. Report number 1981.

Research Institute for Fragrance Materials, Inc. (1966). Repeated insult patch test of cinnamyl nitrile in human subjects. Unpublished report from IFF Incorporated, 27 June. Report number 1983.

Research Institute for Fragrance Materials, Inc. (1977). Repeated insult patch test of cinnamyl nitrile in human subjects. Unpublished report from IFF Incorporated, 15 November. Report number 1984.

Research Institute for Fragrance Materials, Inc. (1980). Evaluation of potential hazards by dermal contact of methyl 2-nonynoate, isoeugenol and cinnamyl nitrile in human subjects. Unpublished report from IFF Incorporated, 15 September. Report number 1982.

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