

Benzyl cyanide

CAS-No.:	140-29-4 The scope of this Standard includes, but is not limited to the CAS number(s) indicated above; any other CAS number(s) used to identify this fragrance ingredient should be considered in scope as well.
Synonyms:	Benzeneacetonitrile Benzyl nitrile Phenylacetonitrile Phenyl acetyl nitrile

History:	Publication date:	2004 (Amendment 38)	Previous Publications:	Not applicable.
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Implementation dates:	For new creation*:	Not applicable.
	For existing creation*:	Not applicable.
	*These dates apply to the supply of fragrance mixtures (formulas) only, not to the finished consumer products in the marketplace.	

RECOMMENDATION:	PROHIBITION / RESTRICTION
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FRAGRANCE INGREDIENT PROHIBITION:	<p>Benzyl cyanide as such should not be used as fragrance ingredient.</p> <p>The natural extracts containing Benzyl cyanide should not be used as substitutes for this substance.</p>
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MAXIMUM ACCEPTABLE CONCENTRATIONS IN THE FINISHED PRODUCT (%):			
Category 1	See notebox	Category 7A	See notebox
Category 2	See notebox	Category 7B	See notebox
Category 3	See notebox	Category 8	See notebox
Category 4	See notebox	Category 9	See notebox
Category 5A	See notebox	Category 10A	See notebox
Category 5B	See notebox	Category 10B	See notebox
Category 5C	See notebox	Category 11A	See notebox

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Category 5D	See notebbox	Category 11B	See notebbox
Category 6	See notebbox	Category 12	See notebbox

Fragrance ingredient restriction - Note box

On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Benzyl cyanide in the finished product does not exceed 0.01% (100 ppm).

FLAVOR REQUIREMENTS:	Due to the possible ingestion of small amounts of fragrance ingredients from their use in products in Categories 1 and 6, materials must not only comply with IFRA Standards but must also be recognized as safe as a flavoring ingredient as defined by the IOFI Code of Practice (www.iofi.org). For more details see chapter 1 of the Guidance for the use of IFRA Standards.
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CONTRIBUTIONS FROM OTHER SOURCES:	SEE ANNEX ON CONTRIBUTIONS FROM OTHER SOURCES
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INTRINSIC PROPERTY DRIVING RISK MANAGEMENT:	RELEASE OF CYANIDE
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EXPERT PANEL FOR FRAGRANCE SAFETY RATIONALE / CONCLUSION:

The Expert Panel for Fragrance Safety reviewed all the available data for Benzyl cyanide and recommends not to use Benzyl cyanide as or in fragrance ingredients in any finished product application. However, the presence of Benzyl cyanide in natural extracts used as ingredients in finished consumer products is tolerated only according to the upper concentration level mentioned in the Notebox if the natural extracts are not being used to provide an alternative, indirect source of the banned substance.

REFERENCES:

- The IFRA Standard on Benzyl cyanide is based on at least one of the following publications:
- The RIFM Safety Assessment on Benzyl cyanide is available at the RIFM Safety Assessment Sheet Database: <http://fragrancematerialsafetyresource.elsevier.com/>.
 - Api A.M., Belsito D., Bruze M., Cadby P., Calow P., Dagli M. L., Dekant W., Dent M., Ellis G., Fryer A. D., Fukayama M., Griem P., Hickey C., Kromidas L., Lalko J., Liebler D.C., Miyachi Y., Politano V.T., Renskers K., Ritacco G., Salvito D., Schultz T.W., Sipes I. G., Smith B., Vitale D., Wilcox D.K. (2015). Criteria for the Research Institute for Fragrance Materials, Inc. (RIFM) safety evaluation process for fragrance ingredients. Food Chem Toxicol. 2015 Aug;82 Suppl:S1-S19 (doi: 10.1016/j.fct.2014.11.014) (http://fragrancematerialsafetyresource.elsevier.com/sites/default/files/Criteria_Document_Final.pdf).
 - IDEA project (International Dialogue for the Evaluation of Allergens) Final Report on the QRA2: Skin Sensitisation Quantitative Risk Assessment for Fragrance Ingredients, September 30, 2016 (<http://www.ideaproject.info/uploads/Modules/Documents/qra2-dossier-final--september-2016.pdf>).

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- Salvito D.T., Senna R. J., Federle T.W. (2002). A framework for prioritizing fragrance materials for aquatic risk assessment. *Environ Toxicol Chem.* 2002;21:1301-1308 (<https://www.ncbi.nlm.nih.gov/pubmed/12069318>).
- Potter et al., 2001, *Food and Chemical Toxicology* 39 (2), page 141-146.
- Potter et al., 2001, *Food and Chemical Toxicology* 39 (2), page 147-151.

Additional information on the application of IFRA Standards is available in the Guidance for the use of IFRA Standards, publicly available at www.ifrafragrance.org.