

Birch wood pyrolysate

CAS-No.:	8001-88-5 68917-50-0 84012-15-7 85251-66-7 85940-29-0 91745-85-6 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.	Molecular formula:	Not applicable.
Synonyms:	Prohibition of the crude material: Birch tar oil, crude Specification for the distillates: Birch tar oil dephenolated Birch tar oil rectified Essence bouleau dephenolisée Essence bouleau (Goudron) rect.		

History:	Publication date:	2013 (Amendment 47)	Previous Publications:	1996 2003
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Implementation dates:	For new submissions*:	August 10, 2013
	For existing fragrance compounds*:	August 10, 2014
	*These dates apply to the supply of fragrance mixtures (formulas) only, not to the finished consumer products in the marketplace.	

RECOMMENDATION:	PROHIBITION / SPECIFICATION
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FRAGRANCE INGREDIENT PROHIBITION:	Crude birch wood (bark) pyrolysates (oils) derived by pyrolysis (destructive distillation) of the wood or bark of <i>Betula pubescens</i> , <i>Betula pendula</i> , <i>Betula lenta</i> or <i>Betula alba</i> should not be used as a fragrance ingredient for any
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	finished product application. Only rectified (purified) Birch tar oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH) established by this IFRA Standard should be used.
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FRAGRANCE INGREDIENT SPECIFICATION:	<p>Limit content of polynuclear aromatic hydrocarbons (PAH) resulting from the use of rectified oils according to Good Manufacturing Practice.</p> <p>Benzopyrene and 1,2-Benzanthracene are to be used as markers for PAH. If used alone or in combination with rectified Cade oil, rectified Styrax oil or rectified Opoponax oil, the total concentration of both of the markers should not exceed 1 ppb in the final product.</p>
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CONTRIBUTIONS FROM OTHER SOURCES:	NONE TO CONSIDER (SEE ALSO THE SECTION ON CONTRIBUTIONS FROM OTHER SOURCES IN CHAPTER 1 OF THE GUIDANCE FOR THE USE OF IFRA STANDARDS)
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INTRINSIC PROPERTY DRIVING RISK MANAGEMENT:	CARCINOGENICITY, GENOTOXICITY BY RELEASE OF POLYNUCLEAR HYDROCARBONS (PAH).
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EXPERT PANEL FOR FRAGRANCE SAFETY RATIONALE / CONCLUSION:

The Expert Panel for Fragrance Safety reviewed all the available data for Birch wood pyrolysate and recommends not to use Birch wood pyrolysate (crude) as or in fragrance ingredients in any finished product application.

In addition, they recommend to use Birch wood pyrolysate (distillates) according to the specification mentioned above.

REFERENCES:

Birch wood pyrolysate

The IFRA Standard on Birch wood pyrolysate is based on at least one of the following publications:

- The RIFM Safety Assessment on Birch wood pyrolysate 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 (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>).
- 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>).

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.