Musk xylene

CAS-No.:	81-15-2 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:	2,4,6-Trinitro-1,3-methyl-5-tert-butylbenzene 1-tert-Butyl-3,5-dimethyl-2,4,6-trinitrobenzene Benzene, 1-(1,1-dimethylethyl)-3,5-dimethyl-2,4,6-trinitro- Musk xylol

History:	Publication date:	2009 (Amendment 44)	Previous Publications:	Not applicable.

Implementation dates:	For new creation*:	August 7, 2009
	For existing creation*:	August 7, 2010
	*These dates apply to the supply of fragrance mixtures (formulas) only, not to the finished consumer products in the marketplace.	

RECOMMENDATION:	**PROHIBITION**

FRAGRANCE INGREDIENT PROHIBITION:	Musk xylene should not be used as a fragrance ingredient. Musk xylene can be present in Musk ketone as an impurity. Please refer to the IFRA Specification Standard on Musk ketone.

CONTRIBUTIONS FROM OTHER SOURCES:	**NONE TO CONSIDER BEYOND TRACES (SEE ALSO THE SECTION ON CONTRIBUTIONS FROM OTHER SOURCES IN CHAPTER 1 OF THE GUIDANCE FOR THE USE OF IFRA STANDARDS)**

INTRINSIC PROPERTY DRIVING RISK MANAGEMENT:	**VPVB**

EXPERT PANEL FOR FRAGRANCE SAFETY RATIONALE / CONCLUSION:

The Expert Panel for Fragrance Safety reviewed all the available data for Musk xylene and recommends not to use Musk xylene as or in fragrance ingredients in any finished product application.

REFERENCES:

Musk xylene

The IFRA Standard on Musk xylene is based on at least one of the following publications:

• The RIFM Safety Assessment on Musk xylene 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).

• 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).

• PBT draft Addendum to the final report (2005) of the Risk Assessment (PBT assessment), January 2008 (the Netherlands National Institute for Public health and Environment, RIVM) (https://echa.europa.eu/documents/10162/cb2b7fc5-8af1-46df-a1c0-7bf8335162a0).

• ECHA (European Chemicals Agency, Member State Committee, Substances of Very High Concern support document for identification of 5-tert-butyl-2,4,6-trinitro-m-xylene, Adopted on October 8, 2008
(https://echa.europa.eu/documents/10162/909dd42e-2554-4f59-911a-729a2da1d529).

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.