

Allyl isothiocyanate

CAS-No.:	57-06-7 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:	Allyl isosulfocyanate Allyl thiocarbonimide 1-Propenal, 3-isothiocyanato- 2-Propenyl isothiocyanate AITC

History:	Publication date:	2020 (Amendment 49)	Previous Publications:	2008
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Implementation dates:	For new creation*:	February 10, 2021
	For existing creation*:	February 10, 2022
	*These dates apply to the supply of fragrance mixtures (formulas) only, not to the finished consumer products in the marketplace.	

RECOMMENDATION:	PROHIBITION
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FRAGRANCE INGREDIENT PROHIBITION:	<p>Allyl isothiocyanate should not be used as a fragrance ingredient.</p> <p>Allyl isothiocyanate as such should not be used as a fragrance ingredient.</p> <p>The natural extracts containing Allyl isothiocyanate should not be used as substitutes for this substance.</p>
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CONTRIBUTIONS FROM OTHER SOURCES:	SEE ANNEX ON CONTRIBUTIONS FROM OTHER SOURCES
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Allyl isothiocyanate can be found at relatively high levels in Mustard oil and Horseradish oil. The natural extracts containing Allyl isothiocyanate should not be used as substitutes for this substance. This means that the use of Mustard oil and Horseradish oil cannot be considered safe and therefore both extracts should not be used in fragrance mixtures until additional data is available and considered sufficient to support the safe use of these ingredients.

INTRINSIC PROPERTY DRIVING RISK MANAGEMENT:	INSUFFICIENT DATA
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EXPERT PANEL FOR FRAGRANCE SAFETY RATIONALE / CONCLUSION:

Allyl isothiocyanate

The Expert Panel for Fragrance Safety reviewed all the available data for Allyl isothiocyanate and recommends not to use Allyl isothiocyanate as or in fragrance ingredients in any finished product application until additional data is available and considered sufficient to support its safe use.

REFERENCES:

The IFRA Standard on Allyl isothiocyanate is based on at least one of the following publications:

- The RIFM Safety Assessment on Allyl isothiocyanate if available at the RIFM Fragrance Material Safety Assessment Center: <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).
- 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.