# Cumin oil

**CAS-No.:** 8014-13-9  
84775-51-9  
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:**  
- Cumin seed oil  
- Cuminum cyminum (Cumin) seed oil  
- Cuminum cyminum L.  
- Cuminum cyminum oil  
- Oils, cumin (Cuminum cyminum)  

**History:**  
- Publication date: 2020 (Amendment 49)  
- Previous Publications: 1975  
  1986  
  2001  
  2015  

**Implementation dates:**  
- For new submissions*: February 10, 2021  
- For existing fragrance compounds*: February 10, 2022  
*These dates apply to the supply of fragrance mixtures (formulas) only, not to the finished consumer products in the marketplace.  

**RECOMMENDATION:** RESTRICTION  

**RESTRICTION LIMITS IN THE FINISHED PRODUCT (%):**  
- Category 1: 0.40 %  
- Category 2: 0.40 %  
- Category 3: 0.40 %  
- Category 4: 0.40 %  
- Category 5A: 0.40 %  
- Category 7A: No Restriction  
- Category 7B: 0.40 %  
- Category 8: 0.40 %  
- Category 9: No Restriction  
- Category 10A: No Restriction
Fragrance ingredient restriction - Note box

The Standard is set due to the phototoxic effects of Cumin oil. For more detailed information on the application of this Standard, please refer to the note on phototoxic ingredients in chapter 1 of the Guidance for the use of IFRA Standards.

If the level of furocoumarins is unknown, the restriction level specified in this IFRA Standard applies.

Combination effects of phototoxic ingredients are only taken into consideration for the furocoumarin-containing fragrance ingredients (extracts) listed in the IFRA Standard of Citrus oils and other furocoumarins containing essential oils.

If combinations of furocoumarin-containing phototoxic fragrance ingredients (extracts) are used, the use levels must be reduced accordingly. The sum of the concentrations of all furocoumarin-containing phototoxic fragrance ingredients (extracts), expressed in % of their recommended upper concentration level in the consumer product shall not exceed 100.

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.

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)
The NOEL for phototoxicity is 50% based on a study in 23 volunteers patched under occlusion on the back for 24 hours. Patches were removed after 10 minutes followed by irradiation with 16-20 J/cm² of UVA. Readings were made at 1, 24, 48 & 72 hours after irradiation. No photoirritation was observed (RIFM, 1986).

Additional studies considered are:
- 100% in miniature swine, UV, distinct photoirritant effects were observed (RIFM 1972; Forbes et al., 1977)
- 100% in hairless mice, UV, distinct photoirritant effects were observed (RIFM 1972; Forbes et al., 1977).
- 100% and 25% in hairless mice, UV, no reactions at 25% 0/12, 6/12 reactions at 100% (RIFM, 1983).
- 100%, 75%, 50%, and 25% in hairless mice, UV, no reactions 0/6 at 25%, 5/6 reactions at 50%, 6/6 reactions at 75% and 100% (RIFM, 1983).
- 30% in guinea pigs, UV, no reactions 0/10 (RIFM, 1984)
- 3% and 10% in guinea pigs, UV, no reactions 0/10 at 3%, and 4/10 reactions at 10% (RIFM, 1984).

The Expert Panel for Fragrance Safety reviewed all the available data for Cumin oil and recommends the limits for the 12 different product categories, which are the acceptable use levels of Cumin oil in the various product categories.

The IFRA Standard on Cumin oil is based on at least one of the publications listed below:
Cumin oil


• IFRA Standard on Citrus oils and other furocoumarins containing essential oils.

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.