CUMIN OIL

CAS N°: 8014-13-9

Empirical formula: Not applicable

Synonyms: **Cumin seed oil**
Cuminum cyminum (Cumin) seed oil
Cuminum cyminum L.
Cuminum cyminum oil
Oils, cumin (Cuminum cyminum)

History:

Initial reviews:	October 1975, June 1986	
Current revision date:	September 2001	
Implementation date:	for new submissions*:	Not applicable
	for existing fragrance compounds*:	Not applicable
Next review date:	2006	

* This date applies to the supply of fragrance compounds (formulas) only, not to the finished products in the marketplace.

STANDARD: **RESTRICTED**

RESTRICTIONS:

Limits in the finished product:

Skin-contact products:

Leave-on products: 0.4%

Rinse-off products: No restriction
including household cleaning products

Non skin-contact products: No restriction

Note box: The Standard is set due to the phototoxic effects of the material. The limit only applies to applications on skin, excluding rinse-off products.

If combinations of phototoxic fragrance ingredients are used, the use levels have to be reduced accordingly. The sum of the concentrations of all phototoxic ingredients, expressed in % of their recommended maximum level in the consumer product shall not exceed 100.

Fragrance material specification: Not applicable

Contribution from other sources: None known

CUMIN OIL

Critical effect: **Phototoxicity**

RIFM summaries:

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).

- 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).

Rexpan Rationale / Conclusion:

The RIFM Expert Panel reviewed the critical effect data for cumin oil and has no concerns with the current limit of 0.4% (September 2001).

References:

Research Institute for Fragrance Materials, Inc. (1986). Human phototoxicity study of cumin oil, tagetes minuta absolute, thyme concrete and pentyl acetate. RIFM report number 4348, 21 August.

Research Institute for Fragrance Materials, Inc. (1985). Cumin oil: A photoirritation test in humans. Unpublished report from the Givaudan-Roure Corp. Report number 3877, 7 January.

Research Institute for Fragrance Materials, Inc. (1972). Phototoxicity and irritation tests of fragrance materials in the hairless mice and miniature swine. Report number 2035, 26 July.

P.D.Forbes, F.Urbach and R.E.Davies. (1977). Phototoxicity testing of fragrance raw materials. Food and Cosmetics Toxicology, 15, 55-60. Report number 1422.

K.H.Kaidbey and A.M.Kligman (1978). Identification of topical photosensitizing agents in humans. Journal of Investigative Dermatology, 70(3), 149-151. Report number 3090.

CUMIN OIL

Research Institute for Fragrance Materials, Inc. (1983). Phototoxicity study of fragrance materials in hairless mice. RIFM report number 2043, 31 January.

Research Institute for Fragrance Materials, Inc. (1984). Determination of phototoxicity of cumin oil in guinea pigs. Unpublished report from the Givaudan-Roure Corp. Report number 3875, 23 February.

Research Institute for Fragrance Materials, Inc. (1984). Determination of phototoxicity of cumin oil in guinea pigs. Unpublished report from the Givaudan-Roure Corp. Report number 3876, 17 July.