Annex I to the CLH report

Proposal for Harmonised Classification and Labelling

Based on Regulation (EC) No 1272/2008 (CLP Regulation),
Annex VI, Part 2

International Chemical Identification:

EC Number: **203-836-6**

CAS Number: **111-12-6**

Index Number: **Not available**

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CONTENTS

1 PHYSICAL HAZARDS

Physical hazards not assessed in this dossier

2 TOXICOKINETICS (ABSORPTION, METABOLISM, DISTRIBUTION AND ELIMINATION)

Toxicokinetics not assessed in this dossier

3 HEALTH HAZARDS

The hazard classes of acute toxicity (oral-, dermal-, and inhalation route), skin corrosion/irritation, serious eye damage/eye irritation and respiratory sensitisation were not assessed in this dossier.

3.1 Skin sensitisation

3.1.1 Animal data

3.1.1.1 Unpublished report by RIFM 1985d and RIFM 1986 as cited in Hostynek and Maibach (2006)

Study reference

Unpublished reports by Research Institute for Fragrance Materials (RIFM), cited in: Hostynek, J. J., & Maibach, H. I. (2006). Is there evidence that methyl heptine carbonate causes allergic contact dermatitis?. *Cutaneous and ocular toxicology*, 25(4), 259-271.

Detailed study summary and results

Test type

This publication includes the results of a literature research and compiled experimental animal test data and human data to evaluate the skin sensitising potential of methyl heptine carbonate. Further, a series of unpublished data was included from The Research Institute for Fragrance Materials Inc.

The degree of confidence of the compiled studies was evaluated according to the following criteria (appendix from the publication):

Appendix Assignment of degree of confidence

Test qualification degree of confidence
Meets all criteria = 5
Number of cases is marginal = 4
Some parameters questionable = 3
Lack of controls; no corroborating results = 2
Unreliable results = 1
Fails all criteria = 0

Note: Criteria: vehicle-treated and untreated controls; test concentration sufficient for response; use of appropriate vehicle; adequate compound purity; significant number of cases used.

A total of 25 references with test data from 34 experimental animal tests were evaluated in the study.

Results and discussion

Studies of the three standard animal test methods used to evaluate skin sensitisation for substances (LLNA, GPMT and the Buehler assay) rated with 3, 4 or 5 in Hostynek and Maibach (2006) have been evaluated to be of relevance to the current classification proposal. These study references and their rating are in the table below.

TABLE 1. The 25 references and their 34 experimental animals test from Hostynek and Maiback (2006). The table includes information of each criteria for the qualification degree of confidence, the final rating, if the study have been available to Dossier Submitter (unpublished/published) and if the study is relevant to a sub-categorisation (if the study is one of the three standard animal test method used to evaluate skin sensitisation for substances – LLNA, GPMT or Buehler assay).

Ref (ref. no in Hostynek and Maibach (2006))	Test material identified	Type op test	Test conditions provided?	Was test fully maximized?	Were there adequate controls?	Was number of subjects sufficient?	Were results presented in adequate detail?	Final rating	Available?
RIFM 1986 (19)	No data	BT	Yes	Max. non-irrit. Conc	10 positive 10 negative	20/dose	Yes	5	No
RIFM 1985 (21)	No data	GPMT	Yes	Max. non-irritant dose	20 challenge & 20 vehicle	20/dose	Yes	5	No
RIFM 2005 (22)	No data	LLNA	Yes (OECD)	Max. non-irritant dose	Zero dose group	6 groups of 4 animals (OECD	Yes	5	No – study described in Kern et al. 2010
Note: BT: Buehler Test, GPMT: Guinea Pig Maximization Test; LLNA: Local Lymph Node Assay; OECD: According to OECD Guideline.									
Full references: RIFM (1985). Buehler E, Kreuzmann JJ, Doyle RL, for the Research Institute for Fragrance Materials, Inc. Guinea pig maximization test. Report to RIFM. RIFM (1986). Buehler E, Kreuzmann J, Garling B, for the Research Institute for Fragrance Materials, Inc. Delayed contact hypersensitivity study of methyl heptine carbonate in guinea pigs. RIFM (2005). Betts, CJ, Dearman RJ, for the Research Institute for Fragrance Materials, Inc. Methyl2-octynoate diluted with vehicle 1:3 EtOH:DEP: Local Lymph Node Assay.									

Since data and results are available for RIFM (2005) in Kern et al. (2010) this study is described in a separate chapter. Unpublished data from RIFM 1985d and 1986 are a relevant Buehler test and GPMT, respectively. They are described further in table below.

TABLE 2. Unpublished relevant data from Hostynek and Maiback (2006).

Ref (ref. no in Hostynek	Description and result from Hostynek and Maibach (2006)

and Maibach (2006))	
RIFM 1986 (19)	*A good quality Buehler test (score of 5) in which 20 guinea pigs were treated with an induction dose of 2.5% gave 14 of 20 reactions to a challenge dose of 5%, 12 of 20 to a challenge dose of 1.5%, and 9 of 20 reactions at 0.5% (19).*
RIFM 1985d (21)	*In a guinea pig maximization test (ranked as 5) three separate induction/challenge regimens (intradermal induction: 0.625%, 5%, and 10%; topical induction: 1%, 3%, and 30%; challenge: 0.3%, 0.9%, and 3%) gave 18 of 20 at the least severe and middle regimens and 20 of 20 at the most severe (21).*
Full references: RIFM (1985). Buehler E, Kreuzmann JJ, Doyle RL, for the Research Institute for Fragrance Materials, Inc. Guinea pig maximization test. Report to RIFM. RIFM (1986). Buehler E, Kreuzmann J, Garling B, for the Research Institute for Fragrance Materials, Inc. Delayed contact hypersensitivity study of methyl heptine carbonate in guinea pigs.	

Based on the whole review, the authors concluded:

The local lymph node assay, a test method particularly designed to determine the allergenic potential of substances, indicates that methyl heptine carbonate is indeed a strong sensitizer, placing it in the second most potent category of 4 classes of allergens (46*).

* Basketter et al. 2000. Use of the local lymph node assay for the estimation of relative contact allergenic potency. *Contact Dermatitis* 42, 344–348.

Klimish score:

RIFM (1986) 2 – Reliable with restrictions

RIFM (1985d) 2 – Reliable with restrictions

Reasoning: For both studies no guidelines or GLP compliance are stated. However, RIFM (1986) and RIFM (1985d) are both assessed by Hostynek and Maibach (2006) to meet all test qualification criteria (vehicle-treated and untreated controls; test concentration sufficient for response; use of appropriate vehicle; adequate compound purity; significant number of cases used).

3.1.1.2 Unpublished report by RIFM 2006 as cited in Kern et al. 2010

Study Reference

Unpublished report by Research Institute for Fragrance Materials (RIFM), cited in: Kern, P. S., Gerberick, F. G., Ryan, C. A., Kimber, I., Aptula, A., & Basketter, D. A. (2010). Local lymph node data for the evaluation of skin sensitization alternatives: a second compilation. *Dermatitis*, 21(1), 8-32.

This data is also available in the publicly available part of the REACH registration dossier:
Unnamed study report (2006). REACH registration. Skin sensitisation. 001 Key – Experimental results.
https://echa.europa.eu/da/registration-dossier/-/registered-dossier/19616/7/5/2

Detailed study summary and results

Test type

LLNA accordingly to OECD TG 429 (2002).

GLP compliant.

Test substance

Methyl 2-octynoate. CAS no. 111-12-6. No information on purity.
The test substance is equivalent to the substance identified in the CLH dossier.

Vehicle: ethanol/diethylphthalate (1:3 E:D)

Test animals

Mice, CBA female
Age at initiations: 7-12 weeks.
Bodyweight: no information
Groups: 4 mice per group

No further information.

Administration/exposure

The mice were dosed topically on the dorsum of both ears to 25 µl of test material or to an equal volume of the relevant vehicle alone. The procedure was repeated for three consecutive days (D1-3). On day 5 (D5) the mice were injected via the tail vein with 250 µl of phosphate buttered saline (PBS) containing 20 µCi of tritiated thymidine. Five hours later, the mice were sacrificed, and the draining auricular lymph nodes were excised for each experimental groups or individual animal.

The incorporated tritiated thymidine were measured by beta scintillation counting, reported in disintegrations per minute (dpm).

Results and discussion

A stimulation index (SI) was calculated for each chemical-treated groups as the ration of the dpm of the treated group (or the mean dpm when individual animals were assessed) to the dpm or mean dpm of the concurrent vehicle control group.

*Cell count SI. Vehicle 1:3ED**

Dose	*0.05%*	*0.1%*	*0.25%*	*0.5%*	*1%*
LLNA SI	*1.7*	*1.7*	*1.8*	*3.3*	*8.7*

** ethanol/diethylphthalate*

EC3 was calculated to be 0.45%, and, of the authors, folione was categorised as a strong sensitizer.

Klimisch score: 1 – reliable without restriction. Reasoning: The study is reported to be conducted in accordance with OECD TG 429 and GLP compliant.

3.1.1.3 Unnamed study report 1977 as cited in REACH registration 2021

Study reference:

Unnamed study report (1977). REACH registration. Skin sensitisation. 002 Key – Experimental results. https://echa.europa.eu/da/registration-dossier/-/registered-dossier/19616/7/5/2/?documentUUID=b7c813a1-04bf-44e3-a659-1f9056f31222

Detailed study summary and results

Very few details were given in the REACH-registration:

Test type

Guinea pig OET (Open Epicutaneous Test); non-guideline test

Test substance

Methyl oct-2-ynoate

Test animals

Guinea pig, 6 animals per dose level

Administration/exposure

Open Epicutanous administration

Conc. levels of 1,3,10,20 and 100%

Positive control: not specified

Daily applications over 21 days

Results and discussion

Positive reactions, first reading:

conc. 100%: 6/6

conc. 30%: 5/6

conc. 10%: 2/6

conc. 3 %: 0/6

In the REACH registration it was concluded that the results indicated methyl oct-2-ynoate to be a moderate skin sensitizer.

Klimisch score: 4 – Not assignable. Reasoning: The Guinea pig OET was not conducted using any guideline and no GLP compliance is stated. The information giving in the REACH registration is very limited and for this reason the study cannot be assessed.

Information from REACH registration states a reliability of 2 (reliable with restrictions), with the following reason "Comparable to guideline study with acceptable restrictions".

3.1.1.4 Unpublished report by RIFM 2005k as cited in SCCS (2012)

Study reference:

Unpublished summary report by Research Institute for Fragrance Materials (RIFM), <u>*cited in:*</u> Scientific Committee on Consumer Safety (SCCS). Opinion on Fragrance allergens in cosmetic products. Adopted opinion at 15th plenary meeting, June 2012. RIFM references: RIFM 2005k

Detailed study summary and results:

LLNA, conducted accordingly to OECD 429. Only note/deviation states that the substance should have been tested at lower concentrations.

Test substance

Methyl 2-octynoate (folione). CAS no. 111-12-6. No information on purity.

The test substance is equivalent to the substance identified in the CLH dossier.

Test animals

n = 4 animals per dose.

No further information in SCCS 2012.

Administration/exposure

Folione was tested in concentration of 0.5, 1.0, 2.0, 5.0 and 10.0% (w/v).

Vehicle: 3:1 EtOH:DEP

No further information available in SCCS 2012.

Results and discussion

Although detailed information is not available for the studies conducted by RIFM the result generally confirms the sensitising properties identified for eugenol in other LLNA studies.

EC3 = < 0.5%

EC3 = < 125µg/cm^2

Reliability of the study: 2 – Reliable with restriction. Reasoning: The study is reported to be in accordance with OECD TG 429. However, GLP compliance is not stated and due to the report being unpublished, the quality of the study cannot be assessed.

3.1.2 Human data

3.1.2.1 English and Rycroft 1988

Study reference:

English, J. S. C., & Rycroft, R. J. G. (1988). Allergic contact dermatitis from methyl heptine and methyl octine carbonates. *Contact Dermatitis*, 18(3), 174-175.

Detailed study summary and results:

Test type

Case report. A 19-year-old laboratory assistant developed a localised vesicular dermatitis on her wrist following direct skin contact with methyl heptine carbonate. She regularly worked with methyl octine carbonate, but only occasionally with methyl heptine carbonate.

Clinical testing

Patch testing with the ICDRG standard series of allergens was negative, but both methyl heptine carbonate (96% pure) (1 % in MEK) and methyl octine carbonate (96% pure) (1% in MEK) produced very strong positive reactions at 2 and 4 days.

3.1.2.2 Heisterberg et al. 2010

Study reference:

Heisterberg, M. V., Vigan, M., & Johansen, J. D. (2010). Active sensitization and contact allergy to methyl 2-octynoate. *Contact dermatitis*, 62(2), 97-101.

Data also included in:

Heisterberg MV, Menné T and Johansen JD (2011). Contact allergy to the 26 specific fragrance ingredients to be declared on cosmetic products in accordance with the EU cosmetics directive. Contact Dermatitis 65: 266-275.

Detailed study summary and results:

Test type

Clinical testing

Population

Clinical patch testing of 350 eczema patients from Denmark and France.

In Denmark 230 patients were tested at the department of Dermato-allergology at

Gentofte Hospital,

In France 120 patients were tested at the department of Dermatologie at CHU Saint Jacques.

Test materials

methyl 2-octynoate 1% supplied by Trolab® (Hermal, Reinbek, Germany) for testing in Denmark

methyl 2-octynoate 2% in pet supplied by Dior for testing in France

Test procedure

The patch tests were performed according to international guidelines (7) using Finn Chambers® (8 mm; Epitest Ltd Oy, Tuusula, Finland) applied on the back with Scanpor tape® (Norgesplaster A/S, Amphora As, Norway). Readings were done on D2, D3 or D4 and D7 according to the recommendations of the International Contact Dermatitis Research group.

Result:

In the Danish group no patients reacted with positive response up to D7. One irritant reaction and one doubtful reaction were observed in the Danish group.

Four weeks later one of the patients had an intense reaction at the site of the patch testing. At a retest with a fragrance series a week later a 2+ reaction was seen D2 towards methyl 2-octynoate 1% in pet.

Another Danish patient was retested at D27 because of a late reaction to one of the fragrance substances. Repeat patch testing with the fragrance series revealed a 1+ at D2 towards methyl 2-octynoate 1% in pet.

As these two patients in the first testing showed only late responses, whereas the second test showed more immediate response the authors concluded that sensitization was induced by the patch testing procedure.

In the French group 2 patients (1.7%) reacted with positive response. Subjects with a positive patch test reaction were found positive at D4 (2+) and at D2/D4 (2+/1+), respectively. They also reacted towards many other fragrance markers including mixes of allergens such as lavender oil, narcissus absolute, and ylang ylang, and one also reacted towards methyl octine carbonate.

One patient, showing a positive reading towards nickel sulphate (++) on D2 and D4, experienced on D16 pruritus around two erythematous, oedematous round marks on her back and a blister developed. On D37 she was seen again at the dermatology department as part of a systematic review and there were two dry, erythematous round marks concurrence to the areas where methyl 2-octynoate 2% pet. and methyl octine carbonate 2% pet. had been tested. No retesting was performed.

3.1.2.3 Mann et al. 2014

Study reference:

Mann, J., McFadden, J. P., White, J. M., White, I. R., & Banerjee, P. (2014). Baseline series fragrance markers fail to predict contact allergy. *Contact Dermatitis*, 70(5), 276-281.

Detailed study summary and results:

Test type

St John's Institutes of Dermatology, St Thomas' Hospital (UK) conducted a retrospective study of 1951 eczema patients routinely tested with labelled fragrance substance and extended European baseline series in 2011-2012.

Description of the test method as cited from Mann et al. 2014:

"*Patch testing was performed with aluminium Finn Chambers® provided by Bio-Diagnostics® (Upton-Upon-Severn,United Kingdom) and allergens provided by Bio-Diagnostics®, Trolab® (Hermal Almirall, Reinbeck, Germany) and Chemotechnique® (Vellinge, Sweden). Allergens were in petrolatum. Reactions were read on days 2 and 4, according to the recommendations of the*

International Contact Dermatitis Research Group. Reactions documented as questionable or irritant were considered to be negative."

Results:

Methyl 2-octynate was used in the concentration 1% in petrolatum and tested positive in 3 (or 0.15%) out of 1951 tested patients.

Co-reaction of these cases were found to other fragrances.

3.1.2.4 Schnuch et al. 2007

Study reference:

Schnuch, A., Uter, W., Geier, J., Lessmann, H., & Frosch, P. J. (2007). Sensitization to 26 fragrances to be labelled according to current European regulation: results of the IVDK and review of the literature. *Contact Dermatitis*, 57(1), 1-10.

Detailed study summary and results:

Test type

The IVDK conducted a retrospective study with 21,325 patients being patch tested with 26 fragrances additionally to the standard series. Period of patch test: 2003-2004.

Description of the test method as cited from Schnuch et al. 2007:

"*Patch tests are performed in accordance with the recommendations of the International Contact Dermatitis Research Group (12) and the German Contact Dermatitis Research Group (DKG) (13). Patch test material is obtained from Hermal/Trolab, Reinbek, Germany. Patch test preparations are applied for 24 or 48 hr. Readings are done until at least 72 hr using the following grading based on international standards (14), further refined by the German Contact Dermatitis Group (13): neg,?, +, ++, +++, irritant, follicular.*"

0.2% (6/2401) consecutive patients showed positive patch test results to folione (1% in pet.).

3.1.2.5 Schnuch et al. 2015

Study reference:

Schnuch, A., Uter, W., Lessmann, H., & Geier, J. (2015). Risk of sensitization to fragrances estimated on the basis of patch test data and exposure, according to volume used and a sample of 5451 cosmetic products. *Flavour and fragrance journal, 30*(3), 208-217.

Detailed study summary and results:

Test type

Frequency of sensitization to fragrances was analysed based on data from IVDK (a network of departments of Dermatology in Germany, Austria, and Switzerland) in the period September 2007 to December 2009.
The frequency of the 26 fragrances to be labelled on cosmetic products according to current EU legislation (including methyl 2-octynoate) was documented in 5451 products (based on the labelling of the ingredients), purchased at random between 2007-2009.
The sensitization exposure quotient (SEQ) was calculated as the quotient of the relative frequency of sensitization and the relative frequency of use/labelling.

A specific fragrance series, containing those of the '26 EU Fragrances' not covered by the baseline fragrance mix (FM I and FM II) were applied in 1870 patients in the period of 1. September 2007 to 31. December 2009.

The share of positive reactions to folione was reported to be 0.16% (0.7% share of positive results) and was of the authors considered to be of '*lower impact on the total allergic responses'*.
The exposure of folione was considered to be very rarely (market share <0.01% in accordance with being a rarely labelled fragrance).

The relatively risk associated with methyl 2-octynoate was calculated using the 'Sensitization Exposure Quotient' (SEQ). The SEQ is an estimation of sensitization risk associated with exposure to a fragrance and is calculated as the quotient of the relatively frequency of sensitization devided by the relative frequency of use. The SEQ of folione was calculated, using exposure data from CVUA (Chemisches und Veterinär- Untersuchungsamt, Karlsruhe/Germany) and IFRA, to be 15.5-70, respectively. The SEQ calculations ranked methyl 2-octynoate with a third or fourth highest SEQ of all '26 EU Fragrances'.

3.1.2.6 Uter et al. 2010

Study reference:

Uter, W., Geier, J., Frosch, P., & Schnuch, A. (2010). Contact allergy to fragrances: current patch test results (2005–2008) from the Information Network of Departments of Dermatology. *Contact Dermatitis*, 63(5), 254-261.

Detailed study summary and results:

Test type

Retrospective analysis of clinical patch testing data from the departments of the Information Network of Departments of Dermatology (IVDK).

Dermatological patients clinically patch tested in the period January 2005 to December 2008 covering 36 961 patients were tested with fragrance mix. 988 of the tests included methyl 2-octynate as test item. The skin reaction was observed third day after application and scored for + (weak) to (+++) strong positive reaction.

Results:

Methyl 2-octynate was tested positive in one (evaluated as +, weak reaction) out of 988 tested patients. No further information on this case was given.

3.1.2.7 Van Ketel 1978

Study reference:

Van Ketel, W. G. (1978). Dermatitis from an aftershave. *Contact dermatitis*, 4(2), 117.

Detailed study summary and results:

Test type

Case report: A barber, aged 32, that had developed a contact dermatitis localized to the dorsa of the fingers.

Clinical testing

The patient was tested with 10 cosmetics which he used frequently. Only one positive reaction (to an aftershave) was obtained.

Further patch testing with 22 perfume ingredients showed positive reactions to methyl heptine carbonate (0.5 % pet.), hydroxycitronellal (10 % pet.) and cinnamic alcohol (5 % pet.). Chemical analysis documented that all three substances was found as ingredients in the aftershave.

The authors concluded that while hydroxycitronellal and cinnamic alcohol are well-known sensitizers, methyl heptine carbonate has not mentioned as a sensitizer in many series of perfume ingredients, although it was reported earlier.

3.1.2.8 Van Oosten et al. 2009

Study reference:

Van Oosten, E. J., Schuttelaar, M. L. A., & Coenraads, P. J. (2009). Clinical relevance of positive patch test reactions to the 26 EU-labelled fragrances. *Contact Dermatitis*, 61(4), 217-223.

Detailed study summary and results:

Test type

Department of Dermatology, University Medical Groningen, University of Groningen, the Netherlands conducted a prospective study, with 320 patients suspected of having contact allergy to fragrances or cosmetics were patch tested with EU-declared fragrance chemicals (26 fragrance substances), FM I and II.

Description of the test method as cited from Van Oosten et al. 2009:

"*All 320 patients were tested with the series of 26 EU fragrance ingredients that are labelled. Additionally, the European baseline series (TRUE® test,Mekos laboratories, Denmark), which includes FMI, was tested in 295 patients, and the FM II (Her-mal/Trolab, Reinbek, Germany) was tested in 227 patients. The fragrance compounds were obtained from Hermal/Trolab and from other international suppliers (International Flavors & Fragrances, USA;Robertet, France; Givaudan, Switzerland, Milennium Speciality Chemicals Inc., USA; BedoukianResearch Inc., USA; Rhodia, France; Symrise, Germany and Firmenich, Switzerland). All fragrances were dissolved in petrolatum, except for Evernia furfuracea which was dissolved in di-ethyl phthalate (Table 1). Patch tests were performed and read according to the guidelines of the International Contact Dermatitis Research Group (ICDRG) (12). The patches were applied for 2D. Final reading was done on D3. (7, 13). Reading of doubtful reactions was done up to D7 after the application of the patch test material. The relevance of the positive reactions (1+ through 3+) was determined and categorized as certain, probable, possible or not relevant. Contact allergy was defined as clinically relevant according to the following criteria: (i) certain exposure to the sensitizer and (ii) the patients dermatitis can be explained by the exposure (8, 11, 14, 15).*"

0.3% (1/320) patients showed positive patch test results (+) to folione (0.5% in pet.). 0.6% (2/320) showed an irritant patch test reaction.

3.1.2.9 Malten et al., 1984 as cited in SCCNFP (1999)

Study reference:

Malten KE, Ketel WG, Nater JP, Liem DH. Reactions in selected patients to 22 fragrance materials. *Contact Dermatitis* 1984:11:1-10.

Unavailable – abstract from article and summary from SCCNFP (1999) were respectively available.

As cited in: Scientific Committee on Cosmetic Products and Non-Food Products Intended for Consumers. (1999). Fragrance allergy in consumers. A review of the problem. Analysis of the need for appropriate consumer information and identification of consumer allergens. Adopted 8th of December.

Also cited in: Bredsdorff, L., Nielsen, E. (2016). Evaluation of selected sensitizing fragrance substances. A LOUS follow-up project. Environmental project No. 1840. Environmental Protection Agency. Ministry of Environment and Food of Denmark.

Detailed study summary and results:

All information retrieved from SCCNFP, 1999 and abstract of Malten et al. 1984.

Test type

Pilot study: Test concentration was based on a pilot study where 34 patients with contact dermatitis was tested with 0.5% methyl heptane carbonate.

Patch test study.

182 patients, suspected of contact allergy related to cosmetics were patch tested, primarily on hands, with 22 fragrance and flavour raw materials.

Pilot study: 1/34 patients had a positive test to methylheptine carbonate 0.5%.

2/182 (1.1%) patients had a positive test to methylheptine carbonate 0.5%.

3.1.2.10 Michell et al., 1982 as cited in SCCNFP (1999)

Study reference:

Mitchell, J. C., Adams, R. M., Glendenning, W. E., Fisher, A., Kanof, N., Larsen, W., ... & Taylor, J. S. (1982). Results of standard patch tests with substances abandoned. *Contact Dermatitis*, 8(5), 336-337.

Unavailable – abstract and summary from SCCNFP (1999) were available

As cited in: Scientific Committee on Cosmetic Products and Non-Food Products Intended for Consumers. (1999). Fragrance allergy in consumers. A review of the problem. Analysis of the need for appropriate consumer information and identification of consumer allergens. Adopted 8th of December.

Also cited in: Bredsdorff, L., Nielsen, E. (2016). Evaluation of selected sensitizing fragrance substances. A LOUS follow-up project. Environmental project No. 1840. Environmental Protection Agency. Ministry of Environment and Food of Denmark.

Detailed study summary and results:

All information retrieved from SCCNFP (1999).

Test type

278 patients were patch tested by the North American Dermatitis Research Group with methylheptine carbonate 1%, as part of a screening series fragrance contact sensitivity. Vehicle not reported.

1/278 (0.4%) patients had a positive test to methylheptine carbonate 1%.

3.1.2.11 Malten 1979 as cited in SCCNFP (1999)

Study reference:

Malten, K. E. (1979). Four bakers showing positive patch-tests to a number of fragrance materials, which can also be used as flavors. *Acta dermato-venereologica. Supplementum*, 59(85), 117-121.

Unavailable – abstract and summary from SCCNFP (1999) were available

As cited in: Scientific Committee on Cosmetic Products and Non-Food Products Intended for Consumers. (1999). Fragrance allergy in consumers. A review of the problem. Analysis of the need for appropriate consumer information and identification of consumer allergens. Adopted 8th of December.

Detailed study summary and results:

All information retrieved from SCCNFP (1999).

Test type – case study

4 bakers with hand eczema were patch tested with fragrances/flavours.

1 patient reacted to methyl heptine carbonate 0.5% (in pet.)

3.2 Germ cell mutagenicity

Hazard class not assessed in this dossier

3.3 Carcinogenicity

Hazard class not assessed in this dossier

3.4 Reproductive toxicity

Hazard class not assessed in this dossier

3.5 Specific target organ toxicity – single exposure

Hazard class not assessed in this dossier

3.6 Specific target organ toxicity – repeated exposure

Hazard class not assessed in this dossier

3.7 Aspiration hazard

Hazard class not assessed in this dossier

4 ENVIRONMENTAL HAZARDS

Hazard classes not assessed in this dossier