

The examination is being carried out on the **following application documents**

**Description, Pages**

1-15 as published

**Claims, Numbers**

1-12 received on 18-12-2009 with letter of 17-12-2009

**Drawings, Sheets**

1/4-4/4 as published

Copies to the English translation of D7 and D8 have been attached to this communication (annexes 1 and 2)

**1. Article 123(2) EPC**

The set of amended claims filed with letter dated 17.12.2009 is in conformity with Art. 123(2) EPC.

**2. Article 53(c) EPC**

The applicant declares in the letter dated 17.12.2009 that claims 1-9 should be viewed as non medical use claims. However, the wording of claims 1-9 still covers therapeutic uses because the claimed use is to prevent, alleviate or treat skin, hair and/or coat disorders or damages.

This wording includes all kinds of disorders or damages of skin, hair and/or coat, including therapeutic ones.

**3. Article 54 EPC**

**3.1 D7** discloses the use of lemon flavonoid and vitamin C in food and drinks or in pharmaceuticals as free radical scavengers. Free radicals are oxidative substances involved in ageing processes and producing skin/hair damages (see abstract). Therefore the subject-matter of the independent claims 1 and 10 is not novel.

The subject-matter of the dependent claims 2-8, 11 and 12 is also disclosed in D7 (see attached English translation, annex 1).

The disclosure of D7 anticipates the subject-matter of claims 1-8, 10-12.

**3.2 D8** discloses the use of hesperidin (1%), catechin (1%) and vitamin E as anti-stress substances in nutrition supplemented foods to promote blood flow, good health and for preventing hair loss or greying (see the abstract and the attached English translation, annex 2).

The disclosure of D8 anticipates the subject-matter of claims 1-7 and 9-12.

**3.3** Six prior art documents retrieved from the TKDL (Traditional Knowledge Database) have been filed as third party observations (31.05.2012). These documents are identified as exhibits 1 to 6 (see the copies providing the English translation of the relevant passages).

All these documents disclose the use of citrus extracts (containing flavonoids and hesperidin, which is the main flavonoid compound of lemon) as active ingredient in compositions for oral intake and for the treatment of pathological conditions as well as for cosmetic uses.

Exhibit 5 mentions the use for pigmenting hair.

Exhibits 1-4 and 6 do not mention hair.

The disclosure of exhibits 1-4 and 6 destroys the novelty of claims 1-8 and 10-12.

The disclosure of exhibit 5 destroys the novelty of claims 1-7, 9-12.

#### 4. Comments under Article 56 EPC

The claims 1-12 are not novel and therefore not inventive. However the examiner wishes to point out the following:

For the assessment of the inventive step of an use claim the applicant should demonstrate that the claimed use in fact takes place and that there is an unexpected effect due to a distinguishing feature not disclosed in the closest prior art.

The applicant has only provided data showing cytoprotective and skin anti-inflammatory properties of orally administered hesperidin (see application, example 5).

D8 is thus considered as the closest prior art as this document discloses the use of oral administered hesperidin for various medical and cosmetic uses (see abstract).

As claims 1 and 10 of the present application do not differ from the disclosure of D8 (see point 3.2 above), it should be derived that the nutritional supplements disclosed in D8 present intrinsically the cytoprotective and anti-inflammatory properties of the hesperidin.

The applicant has not shown any unexpected effect due to a distinguishing feature vis-à-vis the prior art document D8. Therefore the inventive activity cannot be acknowledged.

As the effect of other flavonoids (different from hesperidin) or flavonoids in general as claimed in the present application has not been demonstrated, the present use claims cannot be allowed.

## 5. Conclusions

At least some of the objections raised above are such that there appears to be no possibility of overcoming them by amendment. Refusal of the application under Article 97(2) EPC is therefore to be expected.