



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL
Public Health and Risk Assessment
Risk assessment

Scientific Committee on Consumer Safety
9th plenary Meeting

Held on 14 December 2010 in Brussels

MINUTES

1. WELCOME AND APOLOGIES

The chairman of the SCCS welcomed all the participants. Apologies were received from Dr. Q. Chaudry, Dr. S.C. Rastogi, Prof. K. Savolainen and Dr. R. Waring.

2. DECLARATIONS OF INTEREST

No member declared any interest that could prevent him/her from participating in the discussion of the items on the agenda.

3. APPROVAL OF THE DRAFT AGENDA

SCCS/1388/10

The agenda was approved without changes.

4. ADOPTION OF THE DRAFT MINUTES OF THE 8TH PLENARY MEETING SCCS/1379/10

The minutes of the 8th plenary meeting of 21 September 2010 were approved.

5. INFORMATION FROM CHAIRMAN/MEMBERS

Information from the Chairman

No issues were raised.

Commission follow-up to earlier opinions

In the absence of a representative of SANCO Unit B2 - Cosmetics and Medical Devices – the secretariat said that no legal implementations for cosmetic ingredients were made since the last plenary of 21 September 2010.

6. NEW REQUESTS

6.1. SCCS

New requests were received for Zinc oxide (nano-size), ethyl lauroyl arginate (P95) and for Benzisothiazolinone (P96).

6.2. Mandates for other / all Committees

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7. REPORTS FROM THE WORKING GROUPS

7.1. Cosmetic Ingredients

The Chairperson of the WG reported on the ongoing work. Draft opinions on parabens (P82), dihydroxyacetone (DHA) and on trisodium nitrilotriacetate (NTA) were prepared and tabled for formal adoption.

7.2. Hair Dyes

The Chairperson of the WG reported on the ongoing work. Draft opinions on picramic acid (B28), HC Red n° 3 (B50), HC Yellow n° 12 (B102), HC Red n° 16 (B114) and on Basic Orange 31 (B118) were prepared and tabled for formal adoption.

7.3. Methodologies

The Chairperson of the WG said that two WG-meetings had taken place since the previous plenary meeting of 21 September 2010. The memorandum on Episkin has been updated and the Notes of Guidance revised. Both documents are tabled for formal adoption.

7.4. Nano-materials in Cosmetics

As the Chairperson was not able to attend, the secretariat said that a meeting with industry had taken place during which the TiO₂ Nanomaterial Consortium presented a harmonised physico-chemical characterisation of 15 grades used in cosmetic products.

7.5. TTC

The Chairperson said that one WG-meeting had taken place since the previous plenary meeting of 21 September 2010 during which the draft opinion was finalised. It will be addressed to the three committees for adoption.

7.6. Sensitisation & Fragrances

The Chairperson said that one WG-meeting had taken place since the previous plenary meeting of 21 September 2010. The Working Group continues the update of the opinion on fragrance allergens.

7.7. Food imitating products

The Chairperson said that a draft opinion has been prepared which was tabled for approval. It will subsequently be published for public consultation.

7.8. Participation of Members in activities of other Scientific Committees

The members involved in the activities of SCHER and SCENIHR reported on the progress of the draft opinions on:

- heavy metals in jewellery
- CMR in toys
- Fluoride in drinking water

8. DRAFT OPINIONS - DISCUSSION AND POSSIBLE ADOPTION

8.1. Potential health risks posed by food-imitating and child-appealing chemical consumer products

The SCCS was asked to assess:

1. What are the elements of a product which are likely to increase the probability for confusion with foodstuffs or that make a product more child-appealing? If possible, a ranking of such elements should be given.
2. What are the inherent properties and attributes of chemical consumer products that may cause or contribute to adverse health effects upon ingestion?
3. What are the circumstances under which exposure to Chemical consumer products resembling food and/or having child-appealing properties will pose a serious risk to the health and safety of consumers, in particular to children and elderly people, taking into account e.g. volume ingested, taste of the product etc.? In which circumstances may such a risk materialise?
4. What are the most common adverse health effects observed in humans if such products are ingested?

The SCCS concluded for:

Question 1

(a) Elements of CPRF

Consumer products resembling food (CPRF) are a sub-set of consumer products, such as cosmetics and liquid household products, which possess a colour, shape, packaging, imagery, taste, flavour or other characteristic that resembles food and could be accidentally ingested by children or the elderly. Although examples of food-resembling characteristics of products can be given, there are no studies that tested directly whether the likelihood of poisoning or ingestion with regard to cosmetics and liquid household products increases, given that the characteristics are present. Nevertheless, the above-mentioned characteristics can serve as proxies to evaluate whether products are more or less food-resembling, until more specific data are available.

(b) Elements of CAP

Child-appealing products (CAP) can also be defined as a sub-set of normal consumer products that are appealing to children by design or presentation and may therefore be consumed by children by mistake. There is an overlap between CPRF and CAP (e.g. some consumer products resembling food may be particularly child-appealing), but the two categories are not identical. It should be noted, however, that the appeal of a product for children cannot be defined objectively, but only in relative terms (this is different to CPRF, where it is possible to describe the extent to which a product imitates a food by comparing it to that food). Children can be attracted to nearly anything within their reach, depending on the number and type of other attractors in their environment, their situational and dispositional inclination to explore, and many other factors.

Research shows that children have a preference for sweet, fatty and fruity tastes and odours. Children also prefer product packages that display familiar cartoon or other

characters from TV. There is no evidence for stable colour preferences in children up to 5 years of age, and results on product colour preferences in children generally seem to be highly dependent on the type of product and choice set of colours used. To the best of our knowledge, there is also no evidence that the shape or consistency of cosmetics and liquid household products make such a product relatively more child-appealing, or that the presence of product labels or warnings will have an effect on children up to 6 years old.

The use of bittering agents as “aversives” has been advocated as a possible method of preventing toxic ingestions by children. Some controlled studies have shown that this approach may be useful, but in real situations its effectiveness seems to be more questionable.

These characteristics of CAP were mainly identified in studies about children’s food preferences. There are no studies, for any of the characteristics mentioned, that tested children’s preferences or the likelihood of ingestion with regard to cosmetics and liquid household products. Thus, to the best of our knowledge, there are no data available that show directly that, for instance, cosmetics with a sweet smell, strong colours or cartoon characters displayed on the packaging are ingested more often than others. Nevertheless, the above mentioned characteristics can serve as proxies to evaluate whether products are more or less child-appealing, until more specific data are available. In particular, more systematic research should be carried out on children’s reactions to non-food products to better understand how children may react in front of a package and label design.

(c) Ranking

A ranking of the characteristics is not possible, given that there are no data available that allows for a direct comparison of the impact of the features on the risk of poisoning or ingesting the product.

However, in order to be able to better compare products and product designs with regard to their food-resembling or child-appealing properties, a simple summary score for each of the characteristics mentioned above could be obtained. A product that has a food-resembling shape, colour and smell, with a packaging that displays food-imagery, is probably more likely to be mistaken for a food than one that has only a food-resembling colour. Similarly, a product that displays cartoon characters on the package, tastes and smells sweet is probably more child-appealing than a product that just tastes sweet. However, given the limited data basis, and given that the appeal of a product for children cannot be defined objectively, both CPRF and CAP scores would have to be interpreted cautiously and only have heuristic value until more systematic research is available.

Question 2:

The common household cleaning products, most frequently cited in poisonings, are dishwashing and laundry detergents, toilet cleaners and bleaches. Sodium hypochlorite, sodium hydroxide, alcohols and hydrogen peroxide were the substances most frequently cited in poisonings.

Injury following ingestion is dependent on both the concentration and the pH of the agent. Tissue contact time, which is related to the physical corrosive properties, is also a determinant in the extent of injury. The corrosivity is primarily determined by the pH of the product formulation. In addition, physical state (liquid/solid), viscosity, and concentration are also important.

The most harmful ingredients are:

- Corrosive substances such as acetic acid, nitric acid, sulphuric acid, hydrochloric acid, sodium bisulphate, sodium hypochlorite and sodium hydroxide.
- Surfactant (depending on types and concentration).
- Alcohols and glycols such as ethanol, isopropanol and butyl glycol.

- Essential oils such as pine oil, wintergreen oil and camphor.

The hazardous properties of the formulations are:

- pH: Single acute exposure to pH >9 or <3. Liquids with a pH of less than 2 are considered to be extremely corrosive and hold the greatest risk for injury.
- Viscosity: When the product is acidic and the viscosity low, it may cause or enhance damage to the gastro-intestinal tract. When the product is alkaline and the viscosity high, regurgitation increases the chances of lung damage by aspiration due to foaming potential.

There is uncertainty regarding the oral acute toxicity of mixtures of other ingredients (e.g. colorants, polymers, plasticizers). Many of these products, regardless of the acidity and viscosity, may cause gastric upset, feelings of nausea and vomiting effects after accidental ingestion.

Question 3:

Research on the possible causes for accidental ingestions and poisonings in children between 6 months and 6 years of age is limited, and there are no specific data on CPRF and CAP. However, the available research suggests that three main factors are likely to contribute to increased exposure:

- 1) Low socio-economic status: The variable most frequently correlated with poisonings is socio-economic status (SES). There are many variables related to SES, for instance family income, education, employment status, stress at home, absence of parent and social support. Low SES is a strong predictor of observed home hazards, unsafe childcare practices, fatal unintentional injuries and, to a lesser extent, of nonfatal injuries. Unemployment and homes needing repair, in particular, appear to be risk factors for unintentional injuries of children at home. However, although SES is the best studied predictor of different injury risks, even affluent families do not undertake safety practices all the time, and most of the variation in the number of safety practices, for instance, is not explained by SES. Thus, further research is needed in this area.
- 2) Inadequate supervision: Several studies showed that reduced supervision of children may increase the risk of exposure and subsequent accidental poisoning. However, direct evidence linking supervision to child injury is scarce and more research is needed to assess the independent contribution of this factor.
- 3) Low risk perception: Single studies suggest that low parental risk perception may increase exposure to poisoning hazards in the home, but evidence on the role of this factor is mixed and more research is needed.

Research on the possible causes for accidental ingestions and poisonings in the elderly is scarce. Factors such as reduced olfactory and gustatory perceptions, impaired vision, disorientation or reduced availability of supervision or help are discussed as factors that are likely to increase the risk for accidental ingestions and poisonings, but more research is needed, and there are no specific data on CPRF.

Available information from poisoning centres concerning accidental ingestion of cosmetics and liquid household products indicate that in most cases such ingestions are not serious and the effects are transient. Rare circumstances leading to serious outcomes include large amounts of a product being ingested, toxicity of the product and vulnerable members of the population (elderly and children). However, the limited data on accidental ingestion of CPRF and CAP indicate that there are only rare incidents of serious health risks.

Question 4:

The majority of accidental ingestions reported in children were not serious (death rate reported in around 0.026% of the intoxicated children). For example, in the UK, less than 5% of all exposures to household chemical consumer products resulted in symptoms.

Only limited data are available on adverse health effects of accidental ingestion of CPRF and CAP. On the basis of the available data from poison centres on the adverse health effects by accidental ingestion of cosmetics and liquid household products, it has been observed that initial symptoms reported by parents, whose children were admitted a paediatric emergency care unit, were mainly gastrointestinal (vomiting, abdominal pain,) or neurological (impaired consciousness, hypotonia, ataxia, seizure), although cutaneous (rash), respiratory (dyspnoea, cough) or dysphagia were also reported in some children. Aspiration of vomited material may damage the lung tissue, particularly the alveoli due to the acidity of the stomach content. Such material can, on its own, cause inflammation of the lung tissue, but this is usually transient. However, if the vomited material contains accidentally ingested xenobiotics, such as surfactants and emulsifiers, chemical pneumonia may develop as a result of further inflammation and damage of the lung tissue. This can also be induced by aromatic oils as their low viscosity increases the chance of inhalation rather than swallowing. Chemical pneumonia is a particular problem with children and the elderly and has resulted in deaths. Exposure to corrosive substances may also be of concern since minimal ingestion can cause severe oesophagogastric burns.

Similar effects are seen in the elderly but sometimes these are exacerbated by underlying health status (see Annex I).

For children, no fatalities are reported for CPRF and CAP ingestions. In addition, only rare, adverse severe health effects as a result of CPRF and CAP ingestions are reported. These effects are the exacerbation of the symptoms listed above, or consequences of the treatment used. For the elderly, there are a few case histories reported as either serious adverse health effects or fatalities.

It is thought that there is substantial under-recording and under-reporting of childhood poisoning incidents since many accidental ingestions cause mild symptoms of gastric irritation.

The opinion was approved by the SCCS for public consultation.

8.2. Threshold of Toxicological Concern (TTC) Approach for Safety Assessment of Chemical Substances (SCCS, SCHER, SCENIHR)

The SCCS approved the presented opinion on TTC. As final adoption of this joint opinion requires approval by all three Committees, this draft will now be presented at plenary meetings of SCHER and SCENIHR for approval.

8.3. P82, parabens

The SCCS was asked to answer the following questions:

- 1. Does the SCCS consider the continued use of Propyl- and Butylparaben in a concentration up to 0.4% for one ester or 0.8% when used in combination in cosmetic products safe for the consumer taken into consideration the provided scientific data?*
- 2. Does the SCCS consider the continued use of Methyl- and Ethylparaben in a concentration up to 0.4% for one ester or 0.8% when used in combination in cosmetic products is influenced in anyway taken into consideration the new provided scientific data?*

3. *Does the SCCS consider the continued use of Isopropyl-, Isobutyl- and Phenylparaben in a concentration up to the existing 0.4% for one ester or 0.8% when used in combination in cosmetic products safe for the consumer taken into consideration that no scientific data has been provided?*

The SCCS concluded that:

With respect to the safe use of parabens as cosmetic ingredients, concern was expressed as to the potential endocrine modifying effects of parabens of higher chain length including Propylparaben, Butylparaben and related *iso* compounds. Benzylparaben was also of concern. Based upon the currently available *in vitro* data and *in vivo* rodent test results, the SCCS agrees that the estrogenic properties displayed by parabens appear to increase with increasing chain length. Nevertheless, the SCCS stresses that the displayed potency levels remain about 3 to 6 orders of magnitude lower than the potency of the positive controls.

It is difficult to determine an adequate NO(A)EL value for the observed reproductive effects of Butylparaben or Propylparaben in rodents, as each of the two available key (sets of) oral studies suffered serious shortcomings. Industry attempted to resolve this issue by providing data to suggest the complete skin metabolism of parabens into the non-endocrine modifying and non-reproductive toxic metabolite p-hydroxybenzoic acid (PHBA). Unfortunately, this data consisted of pharmacokinetic results from rodent studies only, whereas other reports clearly pointed towards a potential difference in dermal absorption between rats and humans (Fasano 2004b, Pape and Schepky 2009) and to differences in metabolism of the compounds concerned. Substantial amounts of unmetabolised parabens were detected in human/pig skin samples (Janjua et al. 2007, Ye et al. 2006, Fasano 2004a) and in urine of exposed volunteers (Carwile et al. 2009). Thus, for human skin, no clear demonstration is given of fast and complete metabolism of higher chain length parabens into the common and inactive metabolite PHBA, as is the case in rats.

Therefore, the SCCS cannot ascertain that Butylparaben and Propylparaben are completely metabolized into PHBA after application to human skin, and still considers the parent compounds as potentially systemically available, however not to an unlimited extent. Based upon all available studies, the SCCS comes to a conservative value of 3.5% dermal absorption for Butylparaben. This leads to a MoS of 48 for both Butylparaben and Propylparaben (applying a read-across approach for these two esters).

As the two male reproductive toxicity studies in rodents are of insufficient scientific quality, the NOEL of the Fisher 1999 study (2 mg/kg bw/day) is used as the most conservative value by the SCCS.

Based upon the above, the SCCS considers the use of Butylparaben and Propylparaben as preservatives in finished cosmetic products as safe to the consumer, as long as the sum of their individual concentrations does not exceed 0.19%. This conclusion is based on the lack of scientifically sound data on the pivotal link between dermal absorption in rats and humans, in particular with regard to the metabolism of the parent compound in the skin. The latter can only be addressed through additional human data.

With regard to Methylparaben and Ethylparaben, the previous opinion, stating that the use at the maximum authorized concentrations can be considered safe, remains unchanged.

Finally, the SCCS emphasizes that the studies submitted to the Committee primarily concerned Propyl- and Butylparaben. Limited to no information was submitted for the safety evaluation of Isopropyl-, Isobutyl-, and Phenylparaben. Therefore, for these compounds, the human risk cannot be evaluated.

The same is true for Benzylparaben and Pentymparaben (the latter not mentioned earlier in SCC(NF)P/SCCS opinions), two esters that are reported to be used in cosmetic products for 'other purposes', e.g. for their anti-microbial activity. None of them is listed in Annex VI of

the Cosmetics Directive, as they do not fall under the indicated 'esters of 4-hydroxybenzoic acid' of entry n°12. The SCCS wishes to draw the attention of the Commission services to this anomaly, which may have effects on consumer safety.

The opinion was adopted.

8.4. Dihydroxyacetone (DHA)

The SCCS was asked to answer the following questions:

- 1. Does SCCS consider the use of Dihydroxyacetone (DHA) in cosmetic products safe for the consumers when used in a maximum concentration up to 10.0%, taking into account the data provided?*
- 2. DHA may also be used in "spray cabins" in aqueous solutions in concentrations between 8 and 14%. Does the SCCS consider this use and exposure safe for the consumers?*
- 3. Does the SCCS have any further scientific concerns regarding the use of DHA in a spray solution as a tanning agent without UV?*

The SCCS concluded that, based upon the available data, the use of Dihydroxyacetone as a self-tanning ingredient in cosmetic formulations up to 10% will not pose a risk to the health of the consumer.

When using DHA in spray cabins in aqueous solutions, exposure via inhalation cannot be excluded. The exposure may be single (frequency of use less than once per month) or 'repeated' (e.g. in extreme cases once per week).

For the single exposure, reference is made to the presented acute inhalation study in rats, where the animals were exposed to DHA aerosols during 4 hours to the limit dose level of 5000 mg DHA/m³. No effects were observed on the clinical level or on macroscopic findings related to the respiratory tract or other organs.

As far as repeated exposure to DHA-containing self-tanning formulations is concerned, the potential systemic exposure through inhalation appears to be negligible compared to the calculated worst-case dermal exposure levels. The calculated overall systemic exposure level generates a sufficiently high Margin of Safety.

Therefore, based upon the available information, the SCCS considers that the use of Dihydroxyacetone as a self-tanning ingredient in spray cabins up to 14% will not pose a risk to the health of the consumer.

In light of the answer to question 2, the SCCS has no further concerns.

The opinion was adopted.

8.5. Trisodium nitrilotriacetate (NTA)

The SCCS was asked to answer the following questions:

- 1. Based on the current knowledge on the chemistry, biology, toxicology and taking into account the scientific data used for the classification purposes of trisodium nitrilotriacetate and N-methyl-2-pyrrolidone classified respectively as a carc. cat 2 and repr. 1B substance with a specific concentration limit of 5%, does the SCCS consider safe the continued use of these two substances in cosmetic products up to the specific concentration limit set out in the Commission Regulation 790/2009?*

As this mandate concerns two unrelated substances, it will be addressed in two separate opinions. The present opinion assesses the safety of trisodium nitrilotriacetate (NTA).

Based on a worst case assessment with a maximum use concentration of 5% NTA in cosmetic products and a dermal absorption of 10%, the Margin of Safety is considered to be too low. There is an absence of specific information on the actual concentrations of NTA present in cosmetic products and specific measurement of dermal absorption of it through skin at appropriate concentrations. Information of the irritant potential on skin at maximum use concentrations is lacking.

With the information available at the time of assessment, the SCCS is of the opinion that the presence of NTA with a maximum use concentration of 5% in cosmetic products is not safe for the consumer. A re-evaluation may be possible should relevant data that addresses the above be provided.

The opinion was adopted.

8.6. B28, picramic acid and sodium picramate

The SCCS was asked to answer the following questions:

- 1. Does the Scientific Committee on Consumer Safety (SCCS) consider sodium picramate and picramic acid safe for use as a non-oxidative hair dye with an on-head concentration of maximum 0.6% taken into account the scientific data provided?*
- 2. Does the SCCS consider sodium picramate and picramic acid safe for use in oxidative hair dye formulations with an on-head concentration of maximum 0.6% taken into account the scientific data provided?*
- 3. Does the SCCS recommend any further restrictions with regard to the use of sodium picramate and picramic in any non-oxidative or oxidative hair dye formulations?*

The SCCS concluded that, based on the information provided, the use of picramic acid/sodium picramate in oxidative and non-oxidative hair dye formulations at a maximum on-head concentration of 0.6% does not pose a risk to the health of the consumer, apart from its moderate skin sensitising potential.

The opinion was adopted.

8.7. B50, HC Red n° 3

The SCCS was asked to answer the following questions:

- 1. Does the Scientific Committee on Consumer Safety (SCCS) consider HC Red n° 3 safe for use as a non-oxidative hair dye with an on-head concentration of maximum 3.0% taken into account the scientific data provided?*
- 2. Does the SCCS recommend any further restrictions with regard to the use of HC Red n° 3 in any non-oxidative hair dye formulations?*

The SCCS concluded that, based on the data provided, the use of HC Red n° 3 as a non-oxidative hair dye with a maximum on-head concentration of 3.0% does not pose a risk to the health of the consumer, apart from its sensitising potential.

HC Red n° 3 is an extreme contact sensitiser in the GPMT and strong sensitiser in the LLNA.

HC Red n° 3 is a secondary amine, and thus prone to nitrosation. It should not be used in combination with nitrosating substances. The nitrosamine content should be < 50 ppb.

The opinion was adopted.

8.8. B102, HC Yellow n° 13

The SCCS was asked to answer the following questions:

- 1. Does the Scientific Committee on Consumer Safety (SCCS) consider HC Yellow n° 13 safe for use as a non-oxidative hair dye with an on-head concentration of maximum 2.5% taken into account the scientific data provided?*
- 2. Does the SCCS consider HC Yellow n° 13 safe for use in oxidative hair dye products with an on-head concentration of maximum 2.5% taken into account the scientific data provided?*
- 3. Does the SCCS recommend any further restrictions with regard to the use of HC Yellow n° 13 in any non-oxidative or oxidative hair dye formulations?*

The SCCS concluded that, based on the data provided, the use of HC Yellow n° 13 as a direct dye with a maximum on-head concentration of 2.5% in oxidative and non-oxidative hair dye formulations does not pose a risk to the health of the consumer.

A possible sensitising potential of HC Yellow n° 13 cannot be excluded.

HC Yellow n° 13 is a secondary amine, and thus, it is prone to nitrosation. Nitrosamine content in HC Yellow n° 13 has not been reported. It should not contain more than 50 ppb nitrosamine and it should not be used in the presence of nitrosating agent.

The opinion was adopted.

8.9. B114, HC Red n° 16

The SCCS was asked to answer the following questions:

- 1. Does the Scientific Committee on Consumer Safety (SCCS) consider HC Red n° 16 safe for use as non-oxidative hair dye formulations with a concentration of maximum 1.5% on the head taken into account the scientific data provided?*
- 2. Does the SCCS consider HC Red n° 16 safe for use in oxidative hair dye formulations with a concentration of 1.5% in the finished cosmetic products resulting in a concentration of 0.75% on the head after mixing with an oxidising agent taken into account the scientific data provided?*
- 3. Does the SCCS recommend any restrictions with regard to the use of HC Red n° 16 in oxidative or non-oxidative hair dye formulations (e.g. max conc. in the finish cosmetic product, dilution ratio with hydrogen peroxide, warning etc?)*

The SCCS concluded that, based on the low margin of safety for the use in both oxidative and non-oxidative hair dye formulations, the use of HC Red n° 16 as a hair dye ingredient up to a final on-head concentration of 0.75% under oxidative and 1.5% under non-oxidative conditions poses a risk to the health of the consumer.

A definite conclusion on the mutagenicity of HC Red n° 16 cannot be drawn.

The opinion was adopted.

8.10. B118, Basic Orange 31

The SCCS was asked to answer the following questions:

1. *Does the Scientific Committee on Consumer Safety (SCCS) consider Basic Orange 31 to be safe for use in non-oxidative hair dye formulations at a maximum on-head concentration of 1.0% and in oxidative hair dye formulations at a maximum on-head concentration of 0.5% taken into account the scientific data provided?*
2. *Does the SCCS recommend any restrictions with regard to the use of Basic Orange 31 in non-oxidative and oxidative hair dyes formulations?*

The SCCS concluded that, based on the data provided, the use of Basic Orange 31 with a maximum on-head concentration of 0.5% in oxidative and 1.0% in non-oxidative hair dye formulations does not pose a risk to the health of the consumer, apart from its moderate sensitising potential.

The opinion was adopted.

8.11. C15, Acid Orange 15

The adoption of the opinion was postponed.

8.12. Memorandum on Episkin

The current Memorandum reflects the opinion of the SCCS on the ability of the Episkin™ skin irritation assay to adequately replace the Draize skin irritation test (OECD TG 404 & Method B.4 of Regulation N° 440/2008) for the purpose of distinguishing between skin irritating and non-irritating substances, the only distinction to be made in the European classification.

It must, however, be noted that for cosmetic ingredients, in order to assess the risk in terms of skin contact, exposure time, frequency of use, etc., it is also important to obtain information on possible irritative properties below this initial threshold for classification.

In order to provide trust that irritative cosmetic ingredients can be detected reliably using the Episkin™ skin irritation assay with MTT as an endpoint, Industry submitted test results for 2 distinct groups of substances, namely (i) a set of 15 UV-filters/ preservatives/skin conditioning agents and (ii) a set of 26 hair dye substances/colour ingredients. The second set was specifically requested by the SCCP as there was a suspicion that colour ingredients might interfere with the colorimetric determination of the Episkin™ assay.

The results for the first set of 15 compounds show that there was a relatively high correlation between *in vivo* and *in vitro* data, although only 2 of the 3 irritating substances *in vivo*, could be identified as irritants by the Episkin™ method. A number of methodological remarks were formulated and are taken up in appendix.

As far as the hair dye substances/colour ingredients are concerned, a modified Episkin™ assay was developed to ensure a good correlation between *in vivo* and *in vitro* data. The sensitivity of this assay, based upon the results from the 26 coloured substances was reported to be 80%. As a number of serious shortcomings, however, were noted with

respect to colour interference with the test system, classification of the test substances, and differences in dilutions tested *in vivo* and *in vitro*, the SCCS is of the opinion that this high value is not supported by the data provided.

In addition, a number of remarks on the raw data and the reporting in general are provided in the appendix.

Overall, the SCCS is of the opinion that the results obtained in the two submissions that cover 26 hair dye substances/colour ingredients, do not provide sufficient proof that the MTT test can be used as a suitable endpoint when colour ingredients/hair dye substances are tested for their potential skin irritative properties. The additional control tissue does provide slightly elevated OD values for a number of coloured compounds, but the overall results do not generate the required *in vivo* / *in vitro* correlation needed for this class of chemicals.

The SCCS is therefore of the opinion that for coloured substances, a different endpoint, not involving optical density quantification, should be envisaged. Analytical methods such as HPLC/UPLC might be more appropriate to detect formazan in the *in vitro* assay (McNamee et al. 2009).

The memorandum was adopted.

8.13. Notes of Guidance

This updated version of the Notes of Guidance includes the outcome of several recent SCCP/SCCS opinions concerning methodological issues as well as taking into account new developments relevant to the risk assessment of cosmetics.

The document was adopted and will be published after final editing.

9. COMMENTS ON OPINIONS ADOPTED DURING THE PLENARY MEETING OF 21 SEPTEMBER 2010

Comments have been received on the opinions adopted in the SCCS plenary meeting of 21 September 2010

After consideration of the comments received, the following opinions were revised:

- A18, 1,5-naphthalenediol
- A19, 2,7-naphthalenediol
- A42, 2,4-diaminophenoxyethanol (sulphate salt)
- B31, HC Red n° 13
- B41, HC Yellow n° 2
- B70, 4-nitrophenyl aminoethylurea
- B80, HC Yellow n° 7
- Reaction products of oxidative hair dye ingredients formed during hair dyeing processes

The comments received on Diethylene glycol monoethyl ether (DEGEE) were not considered to warrant the revision of the opinion.

10. ANY OTHER BUSINESS

The next plenary meeting will take place on 22 March 2011

Annex 1: List of Participants

Annex 1

List of Participants

Members of the SCCS

Prof. J. Angerer, Dr. U. Bernauer, Dr. C. Chambers, Prof. G. Degen, Prof. T. Platzek, Prof. V. Rogiers (vice-Chairman), Dr. C. Rousselle, Prof. T. Sanner (vice-Chairman), Dr. J. van Bentem (associate scientific advisor), Dr. J. van Engelen, Prof. M.P. Vinardell, Dr. I.R. White (Chairman)

Apologies

Dr. Q. Chaudhry, Dr. S.C. Rastogi, Prof. K. Savolainen, Dr. R. Waring

SCCS Secretariat (DG SANCO)

Mr. T. Daskaleros, Mrs K. Kilian, Mr. A. Van Elst

DG SANCO B2

Mrs. A. Orloff