Post Meeting Announcement

Cosmetic Ingredient Review Expert Panel
150th Meeting (April 8-9, 2019) - Findings

April 12, 2019

- **Final Safety Assessments**
  - **Fatty Acids & Fatty Acid Salts – 102 ingredients – Safe with qualifications**
  - **Titanium Complexes – 5 ingredients – Split conclusion (1 safe; 4 insufficient)**
  - **Salicylic Acid & Salicylates – 18 ingredients – Safe with qualifications**
  - **Benzyl Salicylate – 1 ingredient – Safe with qualifications**

- **Tentative Safety Assessment**
  - **Brown Algae – 82 ingredients – Split conclusion (32 safe; 50 insufficient)**

- **Insufficient Data Announcements**
  - **Alkyl Amides MIPA – 14 ingredients**
  - **Palm Tree-Derived Ingredients – 8 ingredients**
  - ***Punica granatum*-Derived Ingredients – 18 ingredients**
  - **Mannitol, Sorbitol, & Xylitol – 3 ingredients**

- **Tabled Assessments**
  - **Silica & Silicates – 40 ingredients**
  - **Parabens – 21 ingredients**

- **Rereviews**
  - **Squalane & Squalene – 2 ingredients – do not re-open**
  - **MCI/MI – 1 mixture of 2 ingredients – re-open**

- **150th Meeting Notes**
  - **Director's Report**
  - **2020 CIR Draft Priorities**
  - **Scientific Literature Reviews under development**
  - **Next Expert Panel Meeting – Thursday and Friday, June 6-7, 2019**

Final Safety Assessments

Final safety assessments will be posted on the CIR website at www.cir-safety.org. Unpublished data cited as references in CIR safety assessments are available for review. Any interested person who believes that a final safety assessment is incorrect may petition the CIR Expert Panel to amend the safety assessment.

Fatty Acids & Fatty Acid Salts

The Panel issued a final report with the conclusion that the following 102 ingredients are safe in the present practices of use and concentration described in the safety assessment when formulated to be non-irritating and non-sensitizing, which may be based on a quantitative risk assessment (QRA).

Aluminum Dilinoleate*
Aluminum Distearate
Aluminum Isostearate*
Aluminum Isostearates/Palmitates*
Aluminum Isostearates/Stearates*
Aluminum Isostearates/Laurates/Palmitates*
Aluminum Isostearates/Laurates/Stearates*
Aluminum Lanolate*
Aluminum Stearate
Aluminum Stearates
Aluminum Tristearate
Ammonium Isostearate*
Ammonium Oleate*
Ammonium Stearate*
Arachidic Acid
Beeswax Acid*
Behenic Acid
C14-28 Alkyl Acid
C10-40 Isoalkyl Acid
C14-28 Isoalkyl Acid
C32-36 Isoalkyl Acid*
Calcium Behenate
Calcium Laurate*
Calcium Stearate
Calcium Undecylenate*
Capric Acid
Caproic Acid
Caprylic Acid
Dilinoleic Acid
Dierucic Acid*
Eicosatrienoic Acid*
Erucic Acid*
Hydroxycapric Acid
Hydroxycaprylic Acid
10-Hydroxydecanoic Acid
Hydroxylauric Acid*
Hydroxystearic Acid
10-Hydroxystearic Acid*
Isomerized Linoleic Acid
Isomerized Safflower Acid*
Isostearic Acid
Lauric Acid
Linoleic Acid
Linolenic Acid
Lithium Stearate
Magnesium Lanolate*
Magnesium Laurate
Magnesium Palmitate*
Magnesium Stearate
Magnesium Tallowate*
Myristic Acid
Methyl Myristic Acid*
Oleic Acid
Palmitic Acid
Potassium Behenate
Potassium Borageate*
Potassium Camelliate*
Potassium Caprate*
Potassium Caprylate*
Potassium Caprylate/Caprate*
Potassium Castorate
Potassium Hydrogenated Tallowate
Potassium Hydroxystearate*
Potassium Isostearate
Potassium Lanolate*
Potassium Laurate
Potassium Linoleate*
Potassium Linseedate*
Potassium Oleate
Potassium Olivate/Sunflowerseedate*
Potassium Palmitate
Potassium Stearate
Potassium Sunflowerseedate*
Potassium Tallate
Potassium Tallowate
Potassium Undecylenate*
Sodium Arganate*
Sodium Beeswax*
Sodium Behenate
Sodium Camellia Japonica Seedate*
Sodium Caprate*
Sodium Caprylate*
Sodium Castorate
Sodium Dilinoleate*
Sodium Hydrogenated Tallowate*
Sodium Hydroxystearate*
Sodium Isostearate
Sodium Lanolate*
Sodium Lardate*
Sodium Laurate
Sodium Laurate/Linoleate/Oleate/Palmitate
Sodium Linoleate*
Sodium Oleate
Sodium Palmitate
Sodium Stearate
Sodium Tallowate
Sodium Tamanuseedate*
Sodium Undecylenate*
Stearic Acid
Trilinoleic Acid
Undecanoic Acid
Undecylenic Acid

**Not reported to be in current use. Were ingredients in this group not in current use to be used in the future, the expectation is that they would be used in product categories and at concentrations comparable to others in this group.*

Ingredients denoted in blue were previously reviewed by the Panel; this conclusion supersedes the previous conclusion.

The Expert Panel recognized that these ingredients, particularly Myristic Acid, Oleic Acid, and Sodium Caprate, can enhance the penetration of other ingredients through the skin. The Panel cautioned that care should be taken in formulating cosmetic products that may contain these ingredients in combination with any ingredients whose safety was based on their lack of dermal absorption data, or when dermal absorption was otherwise a concern.

The Panel was concerned that the potential exists for dermal irritation with the use of products formulated using fatty acids and fatty acid salts. The Panel specified that products containing fatty acids and fatty acid salts must be formulated to be non-irritating. The Panel was also concerned about the potential for polyunsaturated fatty acids to undergo oxidation during the formulation, or storage of cosmetic products, that may produce compounds that are dermal sensitizers. The Panel advises industry to limit oxidative products in formulations containing fatty acids and fatty acid salts, and to utilize accepted methodologies, such as a QRA, to ensure formulations are non-sensitizing.

Titanium Complexes

The Panel issued a final report with a split conclusion:

Isopropyl Titanium Triisostearate is safe in cosmetics in the present practices of use and concentration described in the safety assessment, when used as a surface modifier. The data are insufficient to determine the safety of the following 4 ingredients: Titanium Citrate, Titanium Ethoxide, Titanium Isostearates, and Titanium Salicylate. These 4 ingredients are not reported to be in current use in cosmetic formulations.

The Panel determined that the following data are needed to assess the safety of these 4 ingredients:

- Maximum use concentrations
- Methods of manufacture
- Impurities
- 28-day dermal toxicity data
    - Depending on the results of these studies, various systemic toxicity data may also be needed
- Genotoxicity data
- Skin irritation and sensitization data at maximum cosmetic use concentrations, except for Titanium Citrate

Skin irritation and sensitization data on Titanium Citrate previously requested are no longer needed because the Panel determined that results of a study on 37 patients (all suspected of having titanium allergy) patch tested with 0.16% and 0.32% Titanium Citrate were sufficient for evaluating these endpoints.

According to data received from the US Food and Drug Administration's (FDA) Voluntary Cosmetic Registration Program (VCRP) in 2019, Isopropyl Titanium Triisostearate is reported to be used in 513 cosmetic products (506 leave-on and 7 rinse-off products). The results of a concentration of use survey conducted by the Personal Care Products Council (Council) in 2017 indicate that Isopropyl Titanium Triisostearate is used at concentrations up to 1.4% in leave-on products (eye shadows) and at concentrations up to 0.3% in rinse-off products (eye make-up removers).

Confirmation that Isopropyl Titanium Triisostearate is only being used as a surface modifier was received. Submitted method of manufacture data demonstrate that as a surface modifier in cosmetic products, Isopropyl Titanium Triisostearate is covalently bound to a pigment. Thus, the presence of any residual or unreacted Isopropyl Titanium Triisostearate in the product formulation would be considered an impurity. In relation to the bound form of Isopropyl Titanium Triisostearate (i.e., use as a surface modifier), data indicating that surface modification does not result in any appreciable residual Isopropyl Titanium Triisostearate in the final product were not provided. However, it was agreed that appreciable residual Isopropyl Titanium Triisostearate in the final product is not a concern, considering that Isopropyl Titanium Triisostearate is produced by reacting isopropyl tris(isostearoyl) titanate with a colorant particle (e.g., black iron oxide).

Salicylic Acid and Salicylates

The Panel issued a final amended report with the conclusion that Salicylic Acid and the 17 salicylate ingredients listed below are safe in cosmetics in the present practices of use and concentration described in the safety assessment when formulated to be non-irritating and non-sensitizing, which may be based on a QRA.

Butyloctyl Salicylate
Calcium Salicylate*
C12-15 Alkyl Salicylate*
Ethylhexyl Salicylate
Hexyldodecyl Salicylate*
Isocetyl Salicylate*
Isodecyl Salicylate
Magnesium Salicylate
Methyl Salicylate
Myristyl Salicylate*
Potassium Salicylate*
Salicylic Acid
Sodium Salicylate
TEA-Salicylate
Tridecyl Salicylate
Amyl Salicylate
Hexyl Salicylate
Isotridecyl Salicylate*

**Not reported to be in current use. Were ingredients in this group not in current use to be used in the future, the expectation is that they would be used in product categories and at concentrations comparable to others in this group.*

Ingredients identified by green text were not included in the original safety assessment.

The Panel originally published a Safety Assessment of Salicylic Acid and 16 salicylates in 2003 with the conclusion that Salicylic Acid; the salts, Calcium Salicylate, Magnesium Salicylate, MEA-Salicylate, Potassium Salicylate, Sodium Salicylate, and TEA-Salicylate; the esters, Capryloyl Salicylic Acid, C12-15 Alkyl Salicylate, Isocetyl Salicylate, Isodecyl Salicylate, Methyl Salicylate, Myristyl Salicylate, Ethylhexyl Salicylate, and Tridecyl Salicylate; and the compounds, Butyloctyl Salicylate and Hexyldodecyl Salicylate, are safe as used when formulated to avoid skin irritation and when formulated to avoid increasing the skin's sun sensitivity, or, when increased sun sensitivity would be expected, directions for use include the daily use of sun protection.

However, Capryloyl Salicylic Acid has since been deleted from this grouping because it was determined that this ingredient was erroneously defined as an ester in the *International Cosmetic Ingredient Dictionary and Handbook*, but is now correctly identified as a ketone. A separate rereview document on this ingredient is under development.

The qualification relating to formulating products to avoid increasing the skin's sun sensitivity that was included in the original conclusion is now omitted, based on results from a National Toxicology Program (NTP) photocarcinogenicity study indicating that Salicylic Acid had some protective effect at lower light intensities. In the NTP study, the effects of synthetic solar light on the skin of hairless mice that had been treated with creams containing 2% or 4% Salicylic Acid were evaluated. Creams containing Salicylic Acid decreased the incidence of skin tumors in mice receiving the lower of the two light intensities.

Regarding margin of safety (MOS) calculations the Panel agreed that 100% absorption is a more accurate assumption for mucous membrane exposure, and that the MOS calculations regarding lipstick use should be based on this absorption level only. The report was revised accordingly.

According to 2019 VCRP data, the ingredient in this report with the greatest use frequency of is Ethylhexyl Salicylate (3974 uses), followed by Salicylic Acid (1429 uses). The results of a concentration of use survey conducted by the Council in 2018 indicate that Butyloctyl Salicylate is used at concentrations up to 35.9% in leave-on products (lipstick), which is the highest maximum use concentration reported for ingredients reviewed in this safety assessment.

Benzyl Salicylate

The Panel issued a final report with a conclusion that Benzyl Salicylate is safe in cosmetics in the present practices of use and concentration described in the safety assessment when formulated to be non-irritating and non-sensitizing, which may be based on a QRA.

The Panel recognized several positive sensitization studies as well as the outcome of a QRA for dermal sensitization. Consequently, the Panel noted that the potential for induction of skin sensitization varies depending on a number of factors, including site of exposure, formulation, frequency of use, and duration of exposure. The Panel noted that manufacturers should evaluate their final product formulations for the potential for induction of skin sensitization using a QRA or other accepted methodologies. The Panel was also concerned that the potential exists for dermal irritation with the use of products formulated using Benzyl Salicylate, and thus specified that products containing Benzyl Salicylate should be formulated to be non-irritating.

According to 2019 VCRP data, Benzyl Salicylate is reported to be used in 3079 formulations. The results of a concentration of use survey conducted by the Council in 2018 indicate that Benzyl Salicylate is used at concentrations up to 0.5% in skin cleansing preparations; and the greatest leave-on use concentration for this ingredient is 0.15% in "other makeup preparations."

Tentative Safety Assessment

A tentative safety assessment will be posted on the CIR website at www.cir-safety.org on or before ***May 17th, 2019****. Interested persons are given 60 days from the posting date to comment, provide information and/or request an oral hearing before the CIR Expert Panel. Information may be submitted without identifying the source or the trade name of the cosmetic product containing the ingredient. All unpublished data submitted to CIR will be discussed in open meetings, and are available for review by any interested party. Please submit data and/or comments to CIR* ***as soon as possible, but no later than July 16, 2019, for full consideration.*** *The updated report may be scheduled for review by the CIR Expert Panel as early as at its* ***September 16-17, 2019*** *meeting.*

Brown Algae

The Panel issued a revised tentative report for public comment with the conclusion that 32 of the 82 distinct brown algae-derived ingredients reviewed are safe in the present practices of use and concentration described in the safety assessment. The Panel determined there was insufficient data to determine the safety of the remaining 50 ingredients. The insufficiencies include a lack of systemic toxicity data and/or sensitization data. The Panel also suggested the consideration of sufficient composition data in lieu of sensitization data for some of these ingredients. As for those ingredients that are formulated differently, but are derived from the same genus and species and would be similar in composition (ex. Laminaria Digitata Extract and Laminaria Digitata Powder), the Panel stated that if there is sufficient data to support the safety of one of these ingredients, all related ingredients of the same genus and species would be considered safe as well. In addition, the Panel noted the concern of arachidonic acid in several of these brown algae ingredients and determined that the concern can be mitigated as the final concentration of this material would be minimal in cosmetics. The Panel also expressed concern regarding pesticide residues and heavy metals that may be present in botanical ingredients, and stressed that the cosmetics industry should continue to use the necessary procedures to limit these impurities in the ingredient before blending into cosmetic formulations.

Alaria Esculenta Extract
Ascophyllum Nodosum*
Ascophyllum Nodosum Extract
Ascophyllum Nodosum Powder
Fucus Spiralis Extract*
Fucus Vesiculosus
Fucus Vesiculosus Extract
Fucus Vesiculosus Powder
Himanthalia Elongata Extract
Himanthalia Elongata Powder*
Hydrolyzed Fucus Vesiculosus Extract*
Hydrolyzed Fucus Vesiculosus Protein*
Laminaria Diabolica Extract*
Laminaria Digitata Extract
Laminaria Digitata Powder Laminaria Japonica Extract
Laminaria Japonica Powder*
Laminaria Ochroleuca Extract
Laminaria Saccharina Extract
Macrocystis Pyrifera (Kelp)
Macrocystis Pyrifera (Kelp) Blade/Pneumatocyst/Stipe Juice Extract*
Macrocystis Pyrifera (Kelp) Extract
Macrocystis Pyrifera (Kelp) Juice*
Macrocystis Pyrifera (Kelp) Protein
Saccharina Japonica Extract*
Sargassum Filipendula Extract Sargassum Muticum Extract
Undaria Pinnatifida Extract
Undaria Pinnatifida Cell Culture Extract*
Undaria Pinnatifida Leaf/Stem Extract*
Undaria Pinnatifida Powder
Undaria Pinnatifida Root Powder*

Agarum Cribrosum Extract
Cladosiphon Novae-Caledoniae Extract*
Cladosiphon Okamuranus Extract
Cystoseira Amentacea/Caespitosa/Branchycarpa Extract*
Cystoseira Baccata Extract*
Cystoseira Balearica Extract*
Cystoseira Caespitosa Extract*
Cystoseira Compressa Extract*
Cystoseira Compressa Powder*
Cystoseira Tamariscifolia Extract*
Dictyopteris Polypodioides Extract
Dictyota Coriacea Extract*
Durvillaea Antarctica Extract
Ecklonia Cava Extract*
Ecklonia Cava Water*
Ecklonia Kurome Extract*
Ecklonia Kurome Powder*
Ecklonia/Laminaria Extract*
Ecklonia Maxima Extract*
Ecklonia Maxima Powder*
Ecklonia Radiata Extract
Eisenia Arborea Extract*
Fucus Serratus Extract
Halidrys Siliquosa Extract
Halopteris Scoparia Extract*
Hizikia Fusiforme Extract*
Hizikia Fusiformis Water*
Hizikia Fusiformis Callus Culture Extract*
Hydrolyzed Ecklonia Cava Extract*
Laminaria Cloustoni Extract
Laminaria Hyperborea Extract
Laminaria Longissima Extract*
Lessonia Nigrescens Extract
Lessonia Nigrescens Powder*
Nereocystis Luetkeana Extract
Pelvetia Canaliculata Extract
Pelvetia Siliquosa Extract*
Phyllacantha Fibrosa Extract*
Saccharina Angustata Extract*
Saccharina Longicruris Extract
Sargassum Fulvellum Extract
Sargassum Fusiforme Extract
Sargassum Glaucescens Extract*
Sargassum Horneri Extract*
Sargassum Pallidum Extract*
Sargassum Siliquastrum Extract*
Sargassum Thunbergii Extract*
Sargassum Vulgare Extract
Sphacelaria Scoparia Extract
Undaria Peterseniana Extract*

**Not reported to be in current use. Were ingredients in this group not in current use to be used in the future, the expectation is that they would be used in product categories and at concentrations comparable to others in this group.*

Ingredients in black type were considered safe as used.
Ingredients in green type were considered insufficient for sensitization data or composition data.
Ingredients in blue type were considered insufficient for systemic toxicity data.
Ingredients in red type were considered insufficient in both systemic toxicity and sensitization data.

According to 2019 VCRP data, Laminaria Digitata Extract, Fucus Vesiculosus Extract, Macrocystis Pyrifera (Kelp) Extract, and Ascophyllum Nodosum Extract are used in 310, 291, 199, and 140 formulations, respectively. Concentration of use surveys conducted by Council in 2015 and 2016 indicate Laminaria Digitata Powder has the highest reported maximum concentration of use; it is used at up to 40% in face and neck products. Macrocystis Pyrifera (Kelp) Extract is reported to be used at up to 36.4% in eye lotions.

Insufficient Data Announcements

For these insufficient data announcements, interested persons are given an opportunity to comment, provide information and/or request an oral hearing before the CIR Expert Panel. Information may be submitted without identifying the source or the trade name of the cosmetic product containing the ingredient. All unpublished data submitted to CIR will be discussed in open meetings, and are available for review by any interested party. Please submit data and/or comments to CIR ***as soon as possible, but no later than June 12, 2019, for full consideration****. These reports may be scheduled for review by the CIR Expert Panel as soon as the* ***September 16-17, 2019*** *meeting.*

Alkyl Amides MIPA

The Panel issued an insufficient data announcement (IDA) for the following 14 Alkyl Amide MIPA ingredients evaluated in this safety assessment:

Cocamide MIPA
Coconut Oil MIPA Amides
Hydroxyethyl Stearamide-MIPA
Isostearamide MIPA
Lauramide MIPA
Linoleamide MIPA
Oleamide MIPA
Stearamide MIPA
MIPA- Myristate
Myristamide MIPA
Palmamide MIPA
Palm Kernelamide MIPA
Peanutamide MIPA
Ricinoleamide MIPA

The Panel issued an IDA with the following data request:

- Skin sensitization data for Cocamide MIPA at maximum cosmetic use concentrations
- 28-Day dermal toxicity studies
- Dermal sensitization data at maximum use concentrations

All but a few of these ingredients are reported to function in cosmetics as a surfactant or viscosity increasing agent. According to 2019 VCRP, the alkyl amide MIPA ingredients are primarily used in rinse-off formulations, with use in a few leave-on formulations. Most of the reported uses are in some type of hair or skin cleansing formulation. Lauramide MIPA has the highest frequency of use, with a total of 485 formulations and Cocamide MIPA is reported to have is reported to have 335 uses, 324 of which are in rinse-off formulations.

The results of the concentration of use survey conducted in 2017 by the Council indicate that Cocamide MIPA has the highest maximum concentration of use, and is used at up to 12% in hair bleaches. The next highest reported maximum concentration of use is 4.8% Lauramide MIPA in bath soaps and detergents (rinse-offs). The highest concentration of use reported for products resulting in leave-on dermal exposure is 1% Cocamide MIPA in body and hand preparations.

The Panel also noted that these ingredients may potentially contain residual amine impurities. Thus, the Panel cautioned that these ingredients should not be used in cosmetic products in which *N*-nitroso compounds may be formed.

Palm Tree-Derived Ingredients

The Panel issued an IDA for the following 8 ingredients:

Euterpe Edulis Fruit Extract
Euterpe Edulis Juice Extract
Euterpe Oleracea Fruit Extract
Euterpe Oleracea Juice
Euterpe Oleracea Palm Heart Extract
Euterpe Oleracea Pulp Powder
Euterpe Oleracea Seed Powder
Hydrolyzed Euterpe Oleracea Fruit

The data requests are as follows:

For all of the ingredients above

- 28-day dermal toxicity

Euterpe Edulis Fruit Extract and Euterpe Edulis Juice Extract

- Method of manufacture
- Skin sensitization data at maximum use concentrations
- Genotoxicity
- Confirmation that these ingredients are foods

Euterpe Oleracea Seed Powder and Hydrolyzed Euterpe Oleracea Fruit

- Method of Manufacture

Euterpe Oleracea Palm Heart Extract

- Skin irritation and sensitization data at maximum use concentrations

According to 2019 VCRP data, Euterpe Oleracea Fruit Extract is reported to be used in 430 cosmetic products (297 leave-on products, 129 rinse-off products, 4 products that are diluted for (bath) use). Of the ingredients reviewed in this safety assessment, this is the greatest reported ingredient frequency of use. Results from a concentration of use survey conducted by the Council in 2017 indicate that Euterpe Oleracea Pulp Powder is used at maximum use concentrations up to 3% in leave-on products (face and neck products [not spray]) and maximum use concentrations up to 0.6% in rinse-off products (moisturizing products [not spray] and paste masks [mud packs]). These are the greatest leave-on and rinse-off concentrations that reported for the palm-tree derived ingredients.

***Punica Granatum* Ingredients**

The common name for *Punica granatum* is pomegranate. The Panel issued an IDA for the following ingredients:

Punica Granatum Extract†
Punica Granatum Bark Extract
Punica Granatum Bark/Fruit Extract
Punica Granatum Callus Culture Extract
Punica Granatum Flower Extract
Punica Granatum Fruit Extract
Punica Granatum Fruit Juice
Punica Granatum Fruit/Root/Stem Powder
Punica Granatum Fruit/Sucrose Ferment Filtrate
Punica Granatum Fruit Water
Punica Granatum Juice Extract
Punica Granatum Leaf Cell Extract
Punica Granatum Peel Extract
Punica Granatum Pericarp Extract
Punica Granatum Seed
Punica Granatum Seed Cell Culture Lysate
Punica Granatum Seed Extract
Punica Granatum Seed Powder

†*Recently deleted from the INCI Dictionary, but still has reported uses reported in the VCRP database.*

The additional data needed for these cosmetic ingredients are:

- Dermal irritation and sensitization data at maximum leave-on use concentrations for all ingredients, except Punica Granatum Pericarp Extract
- A no-observed-effect-level (NOEL) for skin lightening effects
- The generally recognized as safe (GRAS) status for the pomegranate plant parts not usually consumed (e.g., the bark, flower, root, stem, and leaf)
- Method of manufacturing for the extracts, especially with regard to solvent-type used

- Composition and impurities data for Punica Granatum Bark Extract, Punica Granatum Bark/Fruit Extract, Punica Granatum Callus Culture Extract, Punica Granatum Flower Extract, Punica Granatum Fruit/Root Stem Powder, and Punica Granatum Leaf Cell Extract.

Mannitol, Sorbitol, and Xylitol

The Panel issued an IDA for this ingredient group comprising Mannitol, Sorbitol, and Xylitol. (This group was previously referred to as Penta/Hexahydric Alcohols.) The Panel requested sensitization and irritation data at maximum use concentrations for all three ingredients. In addition, the Panel noted the positive phototoxicity study on Xylitol (10%), and requested additional data to evaluate the phototoxic potential of these ingredients at leave-on concentrations.

According to 2019 VCRP Data, Sorbitol, Xylitol, and Mannitol are used in 1976, 472, and 404 formulations, respectively. The results of the concentration of use survey conducted by the Council indicate Sorbitol has the highest concentration of use; it is used at up to 70% in dentifrices. The highest concentration of use reported for products resulting in leave-on dermal exposure is 60.5% Mannitol in other skin care preparations.

Tabled Assessments

Silica & Silicates

The Panel tabled discussion on the following 40 ingredients for administrative reorganization:

Activated Clay
Aluminum Calcium Sodium Silicate
Aluminum Iron Calcium Magnesium Germanium Silicates
Aluminum Iron Calcium Magnesium Zirconium Silicates
Aluminum Iron Silicates
Aluminum Silicate
Ammonium Silver Zinc Aluminum Silicate
Ammonium Silver Zeolite
Attapulgite
Bentonite
Calcium Magnesium Silicate
Calcium Silicate
Fuller's Earth
Gold Zeolite
Hectorite
Hydrated Silica
Kaolin
Lithium Magnesium Silicate
Lithium Magnesium Sodium Silicate
Magnesium Aluminometasilicate
Magnesium Aluminum Silicate
Magnesium Silicate
Magnesium Trisilicate
Montmorillonite
Potassium Silicate
Pyrophyllite
Silica
Silver Copper Zeolite
Sodium Magnesium Aluminum Silicate
Sodium Magnesium Silicate
Sodium Metasilicate
Sodium Potassium Aluminum Silicate
Sodium Silicate
Sodium Silver Aluminum Silicate
Titanium Zeolite
Tromethamine Magnesium Aluminum Silicate
Zeolite
Zinc Silicate
Zinc Zeolite
Zirconium Silicate

Ingredients in blue were previously reviewed by the Panel.

CIR staff will reorganize these ingredients into 2 separate reports with the first report to be reviewed to include Silica, Hydrated Silica, and silicate ingredients, with a focus on ingredients that are synthetically derived. The second report will be comprised of the ingredients that are determined to be naturally sourced (i.e. mined), including clay materials, zeolites, and any other ingredients in the above list that are mined.

The data on all these ingredients are still considered insufficient to determine the conclusion on safety. The additional data needed for the two safety assessments of these cosmetic ingredients comprise:

- The mean and range of particle sizes for all silica and silicate ingredients (and corresponding sizes of final formulation particles) that are used in spray and powder formulations
- Chemical characterization, composition, and impurities data for all ingredients, except Silica
- Method of manufacturing and/or source data for all ingredients, except Silica and Hydrated Silica.

Parabens

The Panel tabled discussion on the following 21 ingredients for consideration of an updated data profile:

Benzylparaben*
Butylparaben
Calcium Paraben*
Ethylparaben
Isobutylparaben
Isopropylparaben
Methylparaben
Potassium Butylparaben*
Potassium Ethylparaben*
Potassium Methylparaben*
Potassium Paraben*
Potassium Propylparaben*
Propylparaben
Sodium Butylparaben
Sodium Ethylparaben
Sodium Isobutylparaben
Sodium Isopropylparaben*
Sodium Methylparaben
Sodium Paraben
Sodium Propylparaben
4-Hydroxybenzoic Acid

**Not reported to be in use according to 2019 VCRP data and the 2016 Concentration of Use survey.*

A significant quantity of data and a number of comments were received after these documents were in press. Thus, the Panel decided to table this report in order to adequately address this information.

According to VCRP survey data received in 2019, Methylparaben and Propylparaben were reported to be used in 11,739 and 9034 formulations, respectively. The results of the concentration of use survey conducted by the Council in 2016 indicate Methylparaben had the highest reported maximum concentration of use; it is used at up to 0.9% in shampoos. The highest maximum concentration of use reported for products resulting in leave-on exposure is 0.8% Methylparaben in a mascara, and for leave-on dermal exposure is 0.65% Ethylparaben in eye shadows.

Rereviews

Squalane and Squalene

The CIR Expert Panel first reviewed the safety of Squalane and Squalene in 1982, concluding that "both Squalane and Squalene are safe as cosmetic ingredients in the present practices of use and concentration," as described in that report. In 2001, after considering new studies and updated use data on these two ingredients, the Panel determined to not re-open the safety assessment. Because it has been at least 15 years since the first re-review summary was published, in accord with CIR Procedures, the Panel again considered whether the safety assessment of Squalane and Squalene should be re-opened.

The Panel reviewed data that have been published since the last re-review, as well as updated frequency and concentration of use data. The frequency of use of both of these ingredients has increased significantly. The Panel noted that, although additional studies indicated there may be some potential for sensitization, significant clinical evidence suggests these ingredients are not sensitizers. Additionally, the lack of case reports in spite of the increased use supports this fact. Therefore, the Panel reaffirmed the original conclusion, and did not re-open this safety assessment.

MCI/MI

In 1992, the final report on MCI/MI was published with the conclusion that this mixture may be safely used in rinse-off products at a concentration not to exceed 15 ppm and in leave-on cosmetic products at a concentration not to exceed 7.5 ppm. Based on the multiple reported incidences of sensitization reported globally since the original report was published and the large number of uses being reported to the VCRP database, the Panel re-opened the safety assessment on MCI/MI to amend the current conclusion. Prior to determining the new conclusion, however, the Panel is awaiting the results of a second-generation quantitative risk assessment (QRA 2.0) calculation to be performed by industry stakeholders.

150th Meeting Notes

Director's Report

Dr. Heldreth expressed gratitude for the Panel's and other stakeholders' continued support of the Cosmetic Ingredient Review program. He also reported on the presentations covering the CIR process and utility of the Panel's reports. Specifically, Dr. Bergfeld presented at the meeting of Mexican Academy of Dermatology in March and Dr. Heldreth presented at the Society of Cosmetic Chemists 72nd Annual Scientific Meeting in December.

Based on Panel feedback, Dr. Heldreth also commented on coming changes to transmission of late received information to the Panel. Specifically, for future meetings, supplemental information transmission would not be limited to data only.

Draft 2019 Priorities

Interested parties are invited to comment on the inclusion of the ingredients listed in the 2020 CIR Draft Priorities. The selection of these ingredients was based on those elected for cause, and those on the list of ingredients that have not yet been reviewed by the CIR Expert Panel that have the greatest number of uses reported to the VCRP in 2018, and updated in 2019. While the number of proposed new reports below is fewer than usual, a number of re-reviews and previously prioritized report projects are likely to be carried forward into 2020. Comments are also being sought on the grouping of each ingredient family. Proposed ingredients and families may be found starting at pdf page 26 in the document available at the following url: https://www.cir-safety.org/sites/default/files/Admin_4.pdf.

Of note, Benzisothiazolinone was proposed for deletion from the priorities, as it has not been reported to be in use since 2016. The liaison from the FDA proposed the addition of Mica (when not used as a colorant), Cannabidiol, and probiotics (no specific ingredients proposed). CIR plans to finalize the proposed 2020 Priority List at the June 2019 Panel meeting.

Scientific Literature Reviews

The following Scientific Literature Reviews are posted at the CIR website or are currently under development and may be posted imminently. These may then be presented to the Panel for their review (as Draft Reports) during the next two meetings.

- Acrylate/Acrylamide Copolymers
- Adenosine Ingredients
- Caprylhydroxamic Acid
- *Carica papaya* (Papaya)-Derived Ingredients
- *Cocos nucifera* (Coconut)-Derived Ingredients
- Glycerin Ethoxylates
- *Glycine soja* (Soy)-Derived Ingredients
- *Melaleuca alternifolia* (Tea Tree)-Derived Ingredients
- *Scutellaria baicalensis* – Derived Ingredients
- *Triticum vulgare* (Wheat)-Derived Ingredients
- *Vanilla*-Derived Ingredients

Next CIR Expert Panel Meeting
Thursday and Friday, June 6-7, 2019 at the Westin DC City Center Hotel, Washington, DC.
Please contact Carla Jackson (jacksonc@cir-safety.org) before the meeting if you plan to attend.