COSMETIC PRODUCT SAFETY ASSESSMENT

Honey Pollen Soap

This report prepared based on the Regulation (EC)No.1223/2009 and the SCCS's Notes Of Guidance For The Testing of Cosmetic Ingredients And Their Safety Evaluation 9th Revision 2015

A. COSMETIC PRODUCT SAFETY INFORMATION

Information on Product Identity:

		Honey Pollen Soap Skin Care Product/ Soap / Rinse-off Product
		Fratello Kuyumculuk Hediyelik Eşya Ve Temizlik Ürünleri imited Şirketi / Sapo Soap
Adress	:	Maltepe Mah. Maltepe Cad. No:15 Zeytınburnu/Istanbul
Telephone	:	+90536712656

1. Qualitative and Quantitative Composition of the Cosmetic Product

	EINECS/ ELINCS NO	CAS NO	MAX. CONCENTRATION (%)	FUNCTION
OLEA EUROPAEA FRUIT OIL	232-277-0	8001-25-0	50,0	FRAGRANCE PERFUMING SKIN CONDITIONING
AQUA	231-791-2	7732-18-5	25,0	SOLVENT
COCOS NUCIFERA OIL	232-282-8	8001-31-8	15,0	FRAGRANCE HAIR CONDITIONING PERFUMING SKIN CONDITIONING
JUGLANS REGIA SEED OIL	232-282-8	8001-31-8	15,0	SKIN CONDITIONING
SODIUM HYDROXIDE	215-185-5	1310-73-2	10,0	BUFFERING DENATURANT
RICINUS COMMUNIS SEED OIL	232-293-8	8001-79-4	5,0	FRAGRANCE PERFUMING SKIN CONDITIONING
PARFUM			2,0	FRAGRANCE
POLLEN			2,0	SKIN CONDITIONING
HONEY	8028-66-8		1,0	FLAVOURING HUMECTANT SKIN CONDITIONING

***SODIUM HYDROXIDE** is allowed in cosmetic products under the following conditions set in Annex III (15a) of Regulation (EC) No 1223/2009:

Annex III: List of substances which cosmetic products must not contain except subject to the restrictions laid down

1.2. Control of Substances Compliance with Regulation

List of Substances which cosmetic products must not contain except subject to the restriction slaid down Cosmetic Regulation (EC) No 1223/2009

2. Physical/Chemical Characteristics and Stability of theCosmetic Product

2.1. Physical / Chemical Characteristics

The following table was formed by examining the specification of the final product.

Parameter		Specifications	Result	
ha racte ris	Appearance	SOLID SOAP	APPROVED	
Organol epticCharacteris tics	Color	CHARACTERISTIC	APPROVED	
Org	Odor	CHARACTERISTIC	CHARACTERISTIC	
Physicochemical Characteristic	рН	10 – 10,5	APPROVED	

The cosmetic product "grape seed "soap has the following physical/chemical characteristics:

The stability of the product has been tested at 5°C, 25°C and 40°C for 3 months and in the original package of the product.

During this period, appearance, color, odor, pH and other parameters were tested.

It was stated that during the stability tests, no deviation/separation from the original condition of the product was observed.

The results obtained from the stability test are considered to be acceptable.

The durability period of the product after opening is stated on the label as 12 months.

The protocol with results of stability testing is attached in Annex.

3. Microbiological Quality

Staphylococcus aureus, Pseudomonas aeruginosa, and Candida albicans and Escherichia coli are the microorganisms that should not be present in cosmetic products. Since different skin areas may have different sensitivity, two different categories have been defined for cosmetic products;

Category 1 Products for children under 3 years of age, products applied to the eye area, products applied to mucosmembranes, products not rinsed

Category 2 Other products, rinsed productsCategory 1: Total number of live aerobic mesophilic microorganisms (bacteria, yeast and mold)should not exceed 10^2 cfu/g or 10^2 cfu / ml. Staphylococcus aureus, Pseudomonas aeruginosa, Candida albicans or Escherichia coli should not be present.

Category 2: The total number of live Aerobic mesophilic microorganisms must not exceed 10³cfu / g or 10³cfu / ml. *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Candida albicans* and *Escherichia coli*should not be present.

Parameters	Specification	Results	Method
*Aerobicmesophilicmicroorganisms	<1000	<10	TS EN ISO 21149
*Pseudomonas aeruginosa	Should not be	0	TS EN ISO 22717
*Candida albicans	Should not be	0	TS EN ISO 18416
*Staphylococcus aureus	Should not be	0	TS EN ISO 22718
E.coli	Should not be	0	TS EN ISO 21150
YeastandMould	<1000	<10	TS EN ISO 16212

Below is theresult of microbiologicalanalysisforthe final product.

Result obtained on different batches comply with SCCS requirements, therefore there is no risk of microbial contamination.

ChallengeTest; ISO 11930

The test involves preparing appropriate microorganisms at certain inoculum levels and counting the microorganisms in the sample by sowing from the sample containing the microorganism at specific time intervals

. It is judged whether the protective property of the product is sufficient by observing whether a significant decrease or increase of the microorganisms in the test conditions on days 7, 14 and 28 is observed appropriatel

4. Impurities, Traces, Informations about the Packaging Material

Honey Pollen Soap is presented to the consumer in 135 g packaging.

The product was analyzed according to the packaging standards. Raw material specifications are available upon request.

It consists of suitable cosmetic quality components, which are the packaging materials of the product. There is no negative result with regard to any interaction or deterioration of the packaging material with the product.

5. Normal and Reasonably Foreseeable Use

<u>Warnings on the product label:</u> Avoid contact with eyes and mouth. In case of contact, rinse thoroughly with plenty of water.

<u>Application of the Product:</u> Before use, read the instructions of your product at sopna.co, you can access the site with QR code. Keep in a dry place

6. Exposure to the Cosmetic Product

Product type: Leave-on product The sites of aplication:Area body The surface areas of application (cm²): 17500 Estimated amount of product applied (g): 18,67g The duration and frequency of use: 1,43/day Retention factor: 0,01 The normal and reasonably foreseeable exposure route:Dermal Exposed popultion:Adulds **A** = 2,79 mg/kg bw /day ('The SCCS's Notes Of Guidance For The Testing Of Cosmetic Ingredients And Their Safety Evaluation 9th Revision 2015)

7. Exposure to the Substances

Dermal absorption reported as a percentage of the amount of substances applied:

SED = A (mg/kg bw/day) × C(%)/100 × DAp (%)/100

SED A (mg/kg bw/day) :Systemic exposure dosage

A (mg/kg bw/day): Estimated daily exposure to a cosmetic product per kg body weight, based upon the amount applied and the frequency of application

C (%):The concentration of the ingredient under study in the finished cosmetic product on the application site.

DAp (%): Dermal Absorption expresed as a percentage of the test dose assumed to be applied in real-life conditions

A = 2,79mg/kg bw/day. An adult's body weigth was accepted 60 kg(Base on The SCCS's Notes Of Guidance For The Testing Of Cosmetic Ingredients And Their Safety Evaluation 9th Revision, 2015.)

Hamaddenin INCI Adı	OLEA EUROPAEA FRUIT OIL
Konsantrasyon C	% 50
A (mg/kg vücut ağırlığı/gün)	2.79
Dermal Absorbsiyon DAp (%)	% 100

SED = A (mg/kg vücut ağırlığı/gün) X C (%) / 100 X DAp (%) / 100

SED =2.79 (mg/kg vücut ağırlığı/gün) X 50 (%) / 100 X 100 (%) / 100

SED = 1.395 (mg/kg vücut ağırlığı/gün)

Hamaddenin INCI Adı	COCOS NUCIFERA OIL
Konsantrasyon C	%15
A (mg/kg vücut ağırlığı/gün)	2.79
Dermal Absorbsiyon DAp (%)	% 100

SED = A (mg/kg vücut ağırlığı/gün) X C (%) / 100 X DAp (%) / 100

SED =2,79 (mg/kg vücut ağırlığı/gün) X 15 (%) / 100 X 100 (%) / 100

SED = 0,6975 (mg/kg vücut ağırlığı/gün)

Hamaddenin INCI Adı	JUGLANS REGIA SEED OIL
Konsantrasyon C	%15
A (mg/kg vücut ağırlığı/gün)	2.79
Dermal Absorbsiyon DAp (%)	% 100

SED = A (mg/kg vücut ağırlığı/gün) X C (%) / 100 X DAp (%) / 100

SED =2,79 (mg/kg vücut ağırlığı/gün) X 15 (%) / 100 X 100 (%) / 100

SED = 0,6975 (mg/kg vücut ağırlığı/gün)

Hamaddenin INCI Adı	RICINUS COMMUNIS SEED OIL
Konsantrasyon C	%5
A (mg/kg vücut ağırlığı/gün)	2.79
Dermal Absorbsiyon DAp (%)	% 100

SED = A (mg/kg vücut ağırlığı/gün) X C (%) / 100 X DAp (%) / 100 SED =2,79 (mg/kg vücut ağırlığı/gün) X 5 (%) / 100 X 100 (%) / 100

SED = 0,1395 (mg/kg vücut ağırlığı/gün)

Hamaddenin INCI Adı	PARFUME
Konsantrasyon C	%2
A (mg/kg vücut ağırlığı/gün)	2.79
Dermal Absorbsiyon DAp (%)	% 100

SED = A (mg/kg vücut ağırlığı/gün) X C (%) / 100 X DAp (%) / 100 SED =2,79 (mg/kg vücut ağırlığı/gün) X 2 (%) / 100 X 100 (%) / 100 SED = 0,0558 (mg/kg vücut ağırlığı/gün

Hamaddenin INCI Adı	POLLEN
Konsantrasyon C	%2
A (mg/kg vücut ağırlığı/gün)	2.79
Dermal Absorbsiyon DAp (%)	% 100

SED = A (mg/kg vücut ağırlığı/gün) X C (%) / 100 X DAp (%) / 100 SED =2,79 (mg/kg vücut ağırlığı/gün) X 2 (%) / 100 X 100 (%) / 100 SED = 0,0558 (mg/kg vücut ağırlığı/gün

Hamaddenin INCI Adı	HONEY
Konsantrasyon C	%1
A (mg/kg vücut ağırlığı/gün)	2.79
Dermal Absorbsiyon DAp (%)	% 100

SED = A (mg/kg vücut ağırlığı/gün) X C (%) / 100 X DAp (%) / 100 SED =2,79 (mg/kg vücut ağırlığı/gün) X 1 (%) / 100 X 100 (%) / 100 SED = 0,0279 (mg/kg vücut ağırlığı/gün)

INCI NAME	CONCENTRATION (%)	RETANTION FACTOR (R)	DERMAL ABSORPTION DAp (%)	SED (mg/kg bw/day)
OLEA EUROPAEA FRUIT OIL	50,0	0,01	100	1,395
AQUA	25,0	0,01	100	0,6975
COCOS NUCIFERA OIL	15,0	0,01	100	0,4185
JUGLANS REGIA SEED OIL	15,0	0,01	100	0,4185
SODIUM HYDROXIDE	10,0	0,01	100	0,279
RICINUS COMMUNIS SEED OIL	5,0	0,01	100	0,1395
PARFUM	2,0	0,01	100	0,0558

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POLLEN	2,0	0,01	100	0,0558
HONEY	1,0	0,01	100	0,0279

8. Toxicological Profile of the Substances Involved in the Formula

8.1. Calculation of Margin of Safety (Mos)

The product itself has not been subjected to animal experiments.Information about raw materials has been benefited from previous studies.

NO(A)EL MoS= ----- ≥ 100 SED

MoS: Margin of safety of an ingredient

NO(A)EL: The highest exposure of a chemical, determined in toxicity tests etc., having no adverse effect(e.g, onset of sickness) even when the chemical is taken (exposed) daily for the rest of one's life. In practice, mise, rats or other animals are forced to take a chemical for a certain period of time. Usually NOAEL is expressed in the amount of a chemical taken daily per kg body weight (e.g.,mg/kg/day)Safety limit of raw materials with NOAEL value is calculated and stated in the table below

INCI Name	SED (mg/kg/ bw/day)	NO(A)EL (mg/kg vücutağırlığı/gün)	MoS (NOAEL/SED)	Reference
OLEA EUROPAEA FRUIT OIL	1,395	N/A	N/A	according to CIR Expert Panel (2011), for more information see the toxicological profile of OLEA EUROPAEA FRUIT OIL; <u>https://www.cir-</u> <u>safety.org/sites/default/files/118</u> <u>final_oils_web.pdf</u>
AQUA	0,6975	-	-	-
COCOS NUCIFERA OIL	No adverse effects were noted in either test group during the test period. The authors		N/A	<u>https://www.cir-</u> safety.org/sites/default/files/115 buff3e_suppl.pdf

			1	No Observable Adverse Effect Level
JUGLANS REGIA SEED OIL	0,4185	3400 mg/kg/day	8124,253286	No Observable Adverse Effect Level (NOAEL) higher than 3400 mg/kg/day in Wistar rats, that corresponds to more than 550 mg/kg/day human intake [178]. https://www.ncbi.nlm.nih.gov/pmc/arti <u>cles/PMC6266065/</u>
SODIUM HYDROXIDE	0,279	2000	7168,459	https://www.esr.cri.nz/assets/HEALTH- CONTENT/MoH-reports/FW14001- Bleach-risk-assessment-final.pdf
RICINUS COMMUNIS SEED OIL	0,1116	N/A	N/A	The very limited data on acute toxicity in target animals comprise mainly information on castor bean products rather than on purified ricin. Amongst ruminants, cattle appear to tolerate higher intakes than sheep. In horses severe colic and death have been observed after a single dose of approximately 7-8 mg ricin/kg b.w. Toxic effects in pigs and birds have been reported as well as accidental poisonings in dogs with vomiting, depression and diarrhoea as the main clinical signs. No- or lowest observed adverse effect levels (NOAELs or LOAELs) for acute effects of ricin could not be identified for any of the animal species. https://efsa.onlinelibrary.wiley.c om/doi/pdf/10.2903/j.efsa.2008 .726
POLLEN	0,0558	N/A	N/A	https://efsa.onlinelibra ry.wiley.com/doi/pdf/10.2903 /j.efsa.2013.3068
HONEY	0,0279	N/A	N/A	Honey-based ointment was used as part of a treatment of damaged skin in 8 children. No adverse effects or allergic reactions were reported after treatment <u>https://www.cir-</u> <u>safety.org/sites/default/files/h</u> <u>oney092019slr.pdf</u>

8.2. Toxicological Assessment of the Subtances Involved in the Formula

Raw materials and mixtures involved in the formula has been evaluated by classifying according to their trade names:

ROSE DAMASCENA FLOWER WATER

Acute toxicity via Oral route:

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Based on the available information, the registered substance is:- not classified according to the Regulation (EC) No. 1272/2008 and GHS.

Acute toxicity via Dermal route: This information is not available

Acute toxicity via Inhalation: This information is not available.

Specific target organ toxicity: single exposure (Oral):

The classification criteria according to the Annex VI of the Regulation (EC) No. 1272/2008 as specific target organ toxicant (STOT) – single exposure, oral are not met since no reversible or irreversible adverse health effects were observed immediately or delayed after exposure and no effects were observed at the guidance value (oral) for a Category 1 classification (C \leq 300 mg/kg bw) and at the guidance value (oral) for a Category 2 classification (2000 mg/kg bw \geq C > 300 mg/kg bw). No classification is required.

Specific target organ toxicity: single exposure (Dermal): This information is not available

Specific target organ toxicity: single exposure (Inhalation): This information is not available.

Based on its composition and its physical state (viscous liquid), the registered substance is not classified for aspiration hazard acording to CLP Regulation and GHS.

https://echa.europa.eu/registration-dossier/-/registered-dossier/22618/7/3/1

Olea Europaea (Olive) Fruit Oil

1.6% Olea Europaea (Olive) Fruit Oil in a body lotion	HRIPT with 0.02 ml test material , occluded	1 subject had slight erythema following the 7th patch that did not reoccur, no other reactions observed. Not a dermal irritant or sensitizer
22% Olea Europaea (Olive) Fruit Oil in a body moisturizer	HRIPT, semi-occluded	Not a dermal irritant or sensitizer
58.7% Olea Europaea (Olive) Fruit Oil in a conditioning not a dermal irritant or sensitizer	HRIPT with 0.2 ml, semi- occluded	Not a dermal irritant or sensitizer
69.6% Olea Europaea (Olive) Fruit Oil in a foundation	HRIPT with 200 µl test material, occluded	Not a dermal irritant or sensitizer

https://www.cir-safety.org/sites/default/files/118 final oils web.pdf

Cocos Nucifera (Coconut) Oil

The oil is obtained from the pulp of coconut palm nuts. Contains triglycerides of fatty acidssuch as: lauric, myristine, oleic, capric and capron. According to the CIR opinioncoconut oil and its derivatives, coconut acid, hydrogenated coconut oil and hydrogenated acidCoconut has been recognized as safe for use in products in current practicesuse and concentrations (Final Report Cosmetic Ingredient Review Expert Panel Amended SafetyAssessment of Cocos Nucifera (Coconut) Oil, Coconut Acid, Hydrogenated Coconut Acid, HydrogenatedCoconut Oil, Ammonium Cocomonoglyceride Sulfate, Butylene Glycol Cocoate, Caprylic / Capric / CocoGlycerides, Cocoglycerides, Coconut Alcohol, Coconut Oil Decyl Esters, Decyl Cocoate, EthylhexylCocoate, Hydrogenated Coco-Glycerides, Isodecyl Cocoate, Lauryl Cocoate, Magnesium Cocoate, Methyl Cocoate, Octyldodecyl Cocoate, Pentaerythrityl Cocoate, Potassium Cocoate, and Tridecyl Cocoate September 23, 2008 Safety Assessment). Maximum safethe concentration in the cosmetic is up to 80%. https://www.cir-safety.org/sites/default/files/119 draft decylg suppl1.pdf

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RICINUS COMMUNIS SEED OIL

SUMMARY Ricin is a toxic glycoprotein (with several minor variants) belonging to the type II group of ribosome inactivating proteins (type II RIP) found in the seeds (beans) of the castor oil plant (Ricinus communis L. (Euphorbiaceae)). It is composed of two polypeptide chains of approximately 30 kDa joined by a disulfide bond. A limited number of other plants in the same family contain type II RIPs, i.a. subtropical leguminous climber Abrus precatorius L. and, Croton 1 For citation purposes: Scientific Opinion of the Panel on Contaminants in the Food Chain on a request from the European Commission on ricin (from Ricinus communis) as undesirable substances in animal feed. The EFSA Journal (2008) 726, 1-38. Opinion on ricin as undesirable substance in animal feed The EFSA Journal (2008) 726, 2-38 tiglium L. which contain abrin and crotin I, respectively. The seeds of Croton tiglium contain a number of other toxins which make it unsuitable as a feed for livestock. In the Terms of Reference, the plant Jatropha curcas was also requested to be considered, however, it does not contain a RIP II protein. The toxicity of its seeds can be ascribed to the oil, which contain phorbol esters and this plant is therefore not relevant for this opinion on ricin.

Following extraction of castor oil, ricin is left in the press-cake/castor bean meal2. Castor oil production mainly takes place outside the EU. Because of its low value of the press-cake as feed no import to the EU is expected.

Following cell uptake by endocytosis, ricin causes acute cell death by inactivation of ribosomal RNA. Acute symptoms in humans after intake of castor beans are hematemesis (vomiting containing blood), diarrhoea, haemorrhagic necroses in several organs, renal failure, circulatory collapse and death after 6 to 14 days with a fatal oral dose of about 1 mg/kg b.w. (5-10 castor beans). Because of its destruction in the intestinal tract, ricin is approximately 1000-fold more toxic following parenteral administration or inhalation, than by the oral route. Oral LD50 values in rats and mice were 20 to 30 mg/kg b.w., and the corresponding intra peritoneal LD50 value for mice is 22 μ g/kg b.w. There are no data on chronic or reproductive toxicity, or genotoxicity of ricin. Crotin I showed LD50 i.p. values in mice of 20 mg/kg b.w.

The very limited data on acute toxicity in target animals comprise mainly information on castor bean products rather than on purified ricin. Amongst ruminants, cattle appear to tolerate higher intakes than sheep. In horses severe colic and death have been observed after a single dose of approximately 7-8 mg ricin/kg b.w. Toxic effects in pigs and birds have been reported as well as accidental poisonings in dogs with vomiting, depression and diarrhoea as the main clinical signs. No- or lowest observed adverse effect levels (NOAELs or LOAELs) for acute effects of ricin could not be identified for any of the animal species.

https://efsa.onlinelibrary.wiley.com/doi/pdf/10.2903/j.efsa.2008.726

JUGLANS REGIA SEED OIL CAS NO: 8024-09-7 / 84012-43-1 EC NO: - / 281-688-1

Juglans Regia Seed Oil is the oil derived from the nut meats of the Walnut, Juglans regia L., Juglandacea

The European Commission requested the EFSA Panel on Plant Health to prepare and deliver risk assessments for commodities listed in Commission Implementing Regulation (EU) 2018/2019 as 'High risk plants, plant products and other objects'. Taking into account the available scientific information, including the technical information provided by the applicant country, this Scientific Opinion covers the plant health risks posed by the following commodities: dormant, free of leaves grafted plants and rootstocks of Juglans regia imported from Moldova. A list of pests potentially associated with the commodities was compiled. The relevance of any pest was assessed based on evidence following defined criteria. None of the pests in the list fulfilled all relevant criteria and therefore none were

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selected for further evaluation. As a result, risk mitigation measures proposed in the technical dossier from Moldova were listed, but not further evaluated. (2)

Certainly, further studies are needed to draw convincing conclusions about walnut activity on humans. (1)

As mentioned, natural products are often proposed in the oncological field to potentiate the cytotoxic activity of traditional anticancer agents and reduce their toxicity. (1)

Indeed, all the studies involving walnut extracts or walnut-enriched diets disclosed a negligible toxicity together with antimutagenic activity and selective effect towards tumour cells. In contrast, different studies regarding walnut-enriched diets showed beneficial properties, such as prevention or delay of tumour initiation. In conclusion, what is certain is that the antitumour potential of walnut finds a solid foundation in its intrinsic chemical composition, but further studies are needed to identify the best approach to exploit this potential, and to confirm this activity on humans, considering both efficacy and safety. (1)

REFEREE

- Natural Products to Fight Cancer: A Focus on Juglans regia, Elena Catanzaro, Giulia Greco, Lucia Potenza, Cinzia Calcabrini and Carmela Fimognari; Received: 27 October 2018; Accepted: 9 November 2018; Published: 14 November 2018
- 2- <u>http://www.noaelproject.it/content/commodity-risk-assessment-juglans-regia-plants-moldova?language=en</u>

POLLEN

Several data gaps were identified with regard to the risk to honey bees from exposure via dust, from consumption of contaminated nectar and pollen, and from exposure via guttation fluid for the authorised uses as seed treatments and granules. Furthermore, the risk assessment for pollinators other than honey bees, the risk assessment following exposure to insect honey dew and the risk assessment from exposure to succeeding crops could not be finalized on the basis of the available information. A high risk was indicated or could not be excluded in relation to certain aspects of the risk assessment for honey bees for some of the authorised uses. For some exposure routes it was possible to identify a low risk for some of the authorised uses.

REFEREE

https://efsa.onlinelibrary.wiley.com/doi/pdf/10.2903/j.efsa.2013.3068

European Food Safety Authority (EFSA), CONCLUSION ON PESTICIDE PEER REVIEW, EFSA Journal 2013;11(1):3068

HONEY

CAS NO: 8028-66-8 EC NO: -TOXICOKINETIC STUDIES

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Toxicokinetic studies were not available regarding the honey ingredients themselves, however, toxicokinetic information on the relevant, primary components of honey (fructose, glucose, and maltose) can be found in the CIR report on monosaccharides and disaccharides.

TOXICOLOGICAL STUDIES

No general toxicological studies were found in the published literature, and unpublished data were not submitted.

GENOTOXICITY

No genotoxicity studies were found in the published literature, and unpublished data were not submitted.

CARCINOGENICITY

No carcinogenicity studies were found in the published literature, and unpublished data were not submitted.

DERMAL IRRITATION AND SENSITIZATION

No dermal irritation or sensitization data were found in the published literature, and unpublished data were not submitted.

CLINCAL ASSESSMENT OF SAFETY

Clinical Studies

Effect on Damaged Pediatric Skin

Eight children ranging from 8 months to 13 years of age were evaluated in this study.55 Five of the children had partial thickness burns, and three had necrotic ulcers, circular skin lesions, and deep cervical trauma. Each child was treated with povidone iodine (10% solution), fusidic acid, and systemic antibiotics, followed by a honey-based ointment. After this initial treatment, patients were instructed to apply honey-containing ointment as well as a dressing impregnated with a polymer containing 20% medical grade honey, daily. The duration and amount of product used in this study were not stated. No adverse effects or allergic reactions were observed.

The honey-derived ingredients in this report all function as skin-conditioning agents. Other functions include flavoring agent, antiacne agent (not considered a cosmetic use in the US), abrasive, binder, depilating agent, exfoliant, hairconditioning agent, and nail-conditioning agent. Honey derived for cosmetic purposes is reported to be produced by the honeybee species Apis mellifera, Tetragonisca angustula, Scaptotrigona pectoralis, and Melipona becheii.

Of the ingredients included in this report, Honey has the most reported uses, with a total of 1002; 638 of these are leave-on products. Honey Extract has the second greatest number of overall uses, with a total of 359 (172 are in leave-on formulation). Honey has the highest concentration of use, and is used at up to 22% in paste and mud packs. The highest concentration of use reported for leave-on products was in body and hand products containing Honey Extract at up to 7%. The ingredients not in use according to VCRP data and the industry survey include Hydrolyzed Honey and Hydrolyzed Honey Protein.

Honey is common in food and food products worldwide. Honey can be found in over-the-counter cough and cold medications. Traditional medicine suggests the use of honey for different ailments and skin issues. Currently, there is an FDA-approved dermal dressing containing honey used for the management of wounds and burns.

The effect of Palestinian honey on spermatogenesis was studied in male albino rats. Rats treated with Palestinian honey displayed a significant increase in epididymal sperm count. The activity of testicular marker enzymes for spermatogenesis such as sorbitol dehydrogenase was increased, and lactate dehydrogenase was reduced, indicating an induction of spermatogenesis. The effect of honey on the reproductive system of male rat offspring was studied. Testosterone levels were significantly lower in treated animals compared to control animals. The percentage of abnormal sperms were significantly higher in treated animals versus the control group. All other parameters were similar between treated and control group.

The anti-carcinogenic potential of honey (up to 15%) was studied using renal cell carcinoma cell lines. Honey decreased cell viability and induced apoptosis in malignant cells in a concentration- and

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time-dependent manner. A similar study was performed using tualang honey (1 - 10%) on human breast cancer, cervical cancer, and normal breast epithelial cell lines. Treatment with honey induced cell death in all cancer cell lines, but no clear cytotoxic effect was observed in the normal breast epithelial cells. In a different study, the effect of tualang honey (0.2 - 2 g/kg) on breast cancer-induced rats was observed. Smaller tumors were observed in honey-treated rats compared to control animals. In addition, the number of cancers developed in honey-treated rats was significantly lower than control groups.

In an anti-tumorigenicity study, Sprague-Dawley rats were given an injection of the carcinogen MNU and either given no treatment or treatment with manuka or tualang honey (1 g/kg bw/d) via diet. Groups treated with honey showed a significant reduction in tumor size and weight compared to the nontreated positive control. In addition, tumors in the positive control were large and hard, while tumors in honey-treated groups were small and soft.

The nasal cavities of New Zealand white rabbits were irrigated with a honey and saline solution. No histological evidence of inflammation, epithelial injury, or significant morphological changes were observed.

Honey-based ointment was used as part of a treatment of damaged skin in 8 children. No adverse effects or allergic reactions were reported after treatment

REFEREE

Safety Assessment of Honey ingredients as Used in Cosmetics, The 2019 Cosmetic Ingredient Review Expert Panel, September 3, 2019

https://www.cir-safety.org/sites/default/files/honey092019slr.pdf

In addition to MoS calculations, the IFRA certificate of conformity provided by the manufacturer was also used in the safety assessment of this product. The perfume concentration (2.0%) in the product is below the maximum concentration that can be used according to the acceptance criteria set by IFRA for this category.

(Class 9A, maximum utilization rate 5.00%)

INCI Name	Cas NO	SED (mg/kg/ bw/day)	NO(A)EL (mg/kg/ bw/day)	MoS (NOAEL/SED)	Reference
1-(1,2,3,4,5,6,7,8 Octahydro- 2,3,8,8- tetramethyl-2- naphthalenyl) ethanone (OTNE)	54464-57-2 54464-59-4 68155-66-8 68155-67-9	0,00054684	150	274303,2677	https://www.epa.gov /sites/default/files/20 20- 12/documents/otne mrre.pdf
Benzaldehyde	100-52-7	0,00000585	400	68376068,38	https://pubmed.ncbi.n lm.nih.gov/16835129/
alpha-Hexyl cinnamic aldehyde	101-86-0	0,007185366	100	13917,17555	https://finefrag.com/ wp- content/uploads/202 0/08/Hexyl- Cinnamic-Aldehyde- <u>MSDS.pdf</u>

Benzyl benzoate	120-51-4	0,004713984	400	84853,9155	https://echa.europa.e u/lt/registration- dossier/-/registered- dossier/13634/7/1
α-Amyl cinnamic aldehyde	122-40-7	0,00041292	2000	4843553,231	https://www.industria lchemicals.gov.au/site s/default/files/Amyl% 20and%20hexyl%20cin namaldehyde_Human %20health%20tier%20 Il%20assessment.pdf
Phenylacetaldehy de	122-78-1	0,00051057	100	195859,5295	<u>https://echa.europa.e</u> <u>u/lt/registration-</u> <u>dossier/-/registered-</u> <u>dossier/24247/7/1</u>
Hexyl salicylate	6259-76-3	0,005550984	714	129586,3401	https://echa.europa.eu/de/ registration-dossier/- /registered- dossier/14766/7/9/2/?docu mentUUID=475c195b- 5b18-4fcb-ba54- 1ce21cb39885
p- Methoxybenzalde hyde	123-11-5	0,00110484	20	18102,16864	http://fragrancematerialsaf etyresource.elsevier.com/si tes/default/files/105-13- <u>5.pdf</u>
LİMONENE	138-86-3 7705-14-8	0,00071982	250	347309,0495	https://efsa.onlinelibrary.w iley.com/doi/pdf/10.2903/j. efsa.2015.4053

MoS>100 is found for perfume components.

9. Undesirable Effects and Serious Undesirable Effects

Not known or reported. Any adverse reactions and serious adverse effects will be reported. Any serious adverse effect will be notified to the Ministry of Health. If the supplier is a ware of costumer complaints the supplier must bring this to the attention of the safety assessor and submit this formulation for reassessment and notify the competent authorities of corrective actions taken.

10. Information on the Cosmetic Product

The information contained in the reportare as follows:

- Certificate of Analysis orSpecifications of Finished Product
- Certification of Analysis and Specifications of Ingredients
- -Formulation of the Product
- Packaging Quality Certificate
- -Stability Test report
- Physical and chemical test report

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- Challenge test report

B. COSMETIC PRODUCT SAFETY ASSESSMENT

1. Assessment Conclusion

The safety assessment report of this product is prepared for adults use. MoS>100 is found for raw materials. The calculation was performed assuming that dermal absorption is 100 %. With this worst case study, it is evaluated that the use of this raw material in this product is safe.

In addition to MoS calculations, the IFRA certificate of conformity provided by the manufacturer was also used in the safety assessment of this product. The perfume concentration (2%) in the product is below the maximum concentration that can be used according to the acceptance criteria set by IFRA for this category. (Class 9A, maximum utilization rate 5.00%). MoS>100 is found for perfume components.

The ingredients of the product are permitted ingredients for cosmetics. All raw materials are not toxic under normal or reasonably unforeseeable conditions of use at this concentration. The product does not contain prohibited substances listed in annexes of Regulation (EC) No. 1223/2009. Composition of the product complies with the requirements of the EU Cosmetic Regulations.

Based on all data available it can be assumed that the cosmetic product "**Honey Pollen**" soap is safe for human health when used under normal or reasonably foreseeable conditions of use in accordance with Regulation (EC) No 1223/2009.

There are restrictions for SODIUM HYDROXIDE which is allowed in cosmetic products as pH adjuster when pH <11. Based on the fact, that Sodium hydroxide is consumed during the soap-making process and it is not contained in the final product, the restriction does not apply.

The list of ingredients is based on the ingredients that are used to make the soap.

Following review of the information provided for the above product and its ingredients, the product is considered safe for the intended application and complies with EC Regulation 1223/2009.

This safety assessment for human health is based upon information available at this date. Reviews of this assessment will be made as and when new information becomes available.

2. Labelled Warnings and Instructions of Use

<u>Warnings on the product label:</u> Avoid contact with eyes and mouth. In case of contact, rinse thoroughly with plenty of water.

<u>Application of the Product:</u> Before use, read the instructions of your product at sopna.co, you can access the site with QR code. Keep in a dry place

3. Reasoning

This report is prepared based on the Regulation (EC) No. 1223/2009 on cosmetic products and The SCCS's Notes of Guidance for the Testing of Cosmetic Ingredients and Their Safety Evaluation 9th Revision 2015. The Product is a body soap. Application area is the body area. Rinse-off Product. 100% use in cosmetic products is safe. Attached information and documents (MSDS's, TDS's, , etc) and the references at the product Microbiology, Stability and Free claim test results Safety information report is also used. Physical-chemical specifications, microbiological data are acceptable.

All the ingredients Mos value is above >100. The product is safe to use as cosmetic product according to cosmetic regulations. The margin of safety for ingredients which have no NO(A)EL value could not calculate. The toxicological profile have been assessed for substances that missing NO(A)EL values. components in the product has no risk to the consumers. This type of formulation has been in common usein cosmetics over many years without any particular concerns. In the table the margin of safety of each of the ingredients used are given. All the results contained in the report in section A reasoning that product is safe.

4. Assessor's Credentials and Approval of Part B

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Proof of qualification of safety assessor:

Pharmacist,

Graduated School : Gazi University Faculty of Pharmacy Master's Degree : Ankara University faculty of Pharmacy Diploma attached.

Date and signature of safety assessor:

Fatih KEGELI