

COSMETIC PRODUCT SAFETY ASSESSMENT

POMEGRANATE 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:

Product Name	:	POMEGRANATE SOAP
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- IntendedUse : Skin Care Product/ Soap / Rinse-off Product
- Manufacturer : Fratello Kuyumculuk Hediyelik Eşya Ve Temizlik Ürünleri

Sanayi Dış Ticaret Limited Şirketi

Adress : Maltepe Mah. Maltepe Cad. No:15 Zeytinburnu/Istanbul

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1. Qualitative and Quantitative Composition of the Cosmetic Product

	EINECS/ ELINCS NO	CAS NO	CONCENTRATION (%)	FUNCTION
OLEA EUROPAEA FRUIT OIL	232-277-0	8001-25-0	60,0	FRAGRANCE PERFUMING SKIN CONDITIONING
AQUA	231-791-2	7732-18-5	30,0	SOLVENT
COCOS NUCIFERA OIL	232-282-8	8001-31-8	20,0	FRAGRANCE HAIR CONDITIONING PERFUMING SKIN CONDITIONING

SODIUM HYDROXIDE	215-185-5	1210 72 2	10.0	BUFFERING
SODIOWINTDROXIDE	213-163-5	.85-5 1310-73-2 10,0		DENATURANT
PUNICA GRANATUM	84961-57-9	284-646-0	1,0	ABRASIVE
SEED POWDER	64901-37-9	284-040-0	1,0	ABRASIVE
				FRAGRANCE
PARFUM			1,0	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.

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

Paramo	eter	Specifications	Result
istics	Appearance	SOLID SOAP	APPROVED
OrganolepticCharacteristics	Color	CHARACTERISTIC	APPROVED
Organolep	Odor	CHARACTERISTIC	CHARACTERISTIC

Physicochemical			
Characteristic	рН	10 – 10,5	APPROVED

The stability of the product has been tested at, 25°C 12 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 10²cfu/g or 10²cfu / 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.

pH: 10-10.5; 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 appropriately

pH: 10-10.5; therefore considered as no risk

4. Impurities, Traces, Informations about the Packaging Material

POMEGRANATE 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

Warnings on the product label:

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 = $A (mg/kg bw/day) \times C(\%)/100 \times DAp (\%)/100$

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	% 60
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 = 1.674 (mg/kg vücut ağırlığı/gün)

Hamaddenin INCI Adı	COCOS NUCIFERA OIL
Konsantrasyon C	%20
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 = 0,558 (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	PARFUM
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 2 (%) / 100 X 100 (%) / 100

SED = 0,0279(mg/kg vücut ağırlığı/gün)

Hamaddenin INCI Adı PUNICA GRANATUM SEED POWDER

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 2 (%) / 100 X 100 (%) / 100

SED = 0,0279(mg/kg vücut ağırlığı/gün)

	CONCENTRATION	RETANTION FACTOR (R)	DERMAL	SED (mg/kg
	(%)		ABSORPTION	bw/day)
OLEA EUROPAEA FRUIT OIL	60,0	0,01	100	1,674
COCOS NUCIFERA OIL	20,0	0,01	100	0,558
RICINUS COMMUNIS SEED OIL	5,0	0,01	100	0,1395
PUNICA GRANATUM SEED POWDER	1,0	0,01	100	0,0279
PARFUM	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

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	1,674	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</u> /118 final_oils_web.pdf
AQUA	0,6975	-	-	-
COCOS NUCIFERA OIL	0,558	No adverse effects were noted in either test group during the test period. The authors concluded that Coconut Oil was as effective and safe as mineral oil when used as a moisturizer.	N/A	<u>https://www.cir-</u> <u>safety.org/sites/default/files</u> / <u>115_buff3e_suppl.pdf</u>
PUNICA GRANATUM SEED POWDER	0.0279	4300	154121	https://www.sciencedirect. com/science/article/pii/S02 78691509000581?casa_tok en=jnEHHtJP4H8AAAAA :ObnJmbE70gOEJLi_Yov K1- _aELpcZohERWiqeJENdP Qxwngegdaj1eXvnkpp19f Yk0lRLEL3Rkw

Version: 1.0 Prep. Date: 08.09.2022 Form No: 102071 RevisionDate: 8.09.2022

RICINUS COMMUNIS SEED OIL	0,1395	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.wil ey.com/doi/pdf/10.2903/j.ef sa.2008.726
PARFUM	0,0279	N/A	N/A	

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:

Olea Europaea (Olive) Fruit Oil

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

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, Potassium 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

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

PUNICA GRANATUM SEED OIL

CAS NO : 84961-57-9

EC NO: 284-646-0

In this manuscript, the toxicology and safety of pomegranate seed oil (PSO) was evaluated by in vitro (Ames, chromosomal aberration), and in vivo toxicity tests (acute toxicity and 28-day toxicity in Wistar rats). No mutagenicity of PSO was observed in the absence and presence of metabolic activation up to precipitating concentrations of 5000 lg/plate (Ames test) or 333 lg/ml (chromosome aberration test). The acute oral toxicity study revealed no significant findings at 2000 mg PSO/kg body weight. In the 28- day dietary toxicity study PSO was dosed at concentrations of 0, 10,000, 50,000 and 150,000 ppm, which resulted in a mean intake of 0–0, 825–847, 4269–4330 and 13,710–14,214 mg PSO/kg body weight per day in males–females, respectively. At 150,000 ppm dietary exposure to PSO, a much higher dose than the level of PSO that elicits antidiabetic and anti-inflammatory efficacy, increased hepatic enzyme activities determined in plasma (aspartate, alanine aminotransferase and alkaline phosphatase) and increased liver-to-body weight ratios were observed. However, these effects might be the result of a physiological response to exposure to a very high level of a fatty acid which is not part of the normal diet, and are most likely not toxicologically relevant. The no observable adverse effect level (NOAEL) was 50,000 ppm PSO (=4.3 g PSO/kg body weight/day)

REFERENCE:

I.A.T.M. Meerts a,*, C.M. Verspeek-Rip a , C.A.F. Buskens a , H.G. Keizer b , J. Bassaganya-Riera c , Z.E. Jouni d , A.H.B.M. van Huygevoort e , F.M. van Otterdijk e , E.J. van de Waart a, Toxicological evaluation of pomegranate seed oil, Food and Chemical Toxicology 47 (2009) 1085–1092

https://www.sciencedirect.com/science/article/pii/S0278691509000581?casa_token=jnEHHtJP4H8AA AAA:ObnJmbE70gOEJLi_YovK1-_aELpcZohERWiqeJENdPQxwngegdaj1eXvnkpp19fYk0lRLEL3Rkw

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

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 (1%) 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 **POMEGRANATE 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

Warnings on the product label: 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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Ümraniye/İstanbul, TURKEY

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: