



# COSMETIC SAFETY ASSESSMENT REPORT

## No.Zav 004/2018

Product Name

### ORGANIC TOOTHPASTE 3-7 RASPBERRY

Product code AB061

#### 1.0 Qualitative and Quantitative Composition of Cosmetic Product

ORGANIC TOOTHPASTE 3-7 YR RASPBERRY (AB061)	
Cod.	AB061

#### Composition with raw materials and ingredients

	Raw material	%	Ingredients	CAS#	% composition	% total	Functions
1.	PURIFIED WATER	54,8100	Aqua	7732-18-5	100,0000	54,81000	Solvent
2.	SORBITOL 70%	20,0000	Sorbitol	50-70-4	70,0000	14,00000	Humectant, Plasticiser, Skin conditioning
			Aqua	7732-18-5	30,0000	6,00000	Solvent
3.	GLYCERYN	18,0000	Glycerin	56-81-5	100,0000	18,00000	Denaturant, Humectant, Perfuming, Solvent
4.	XANTAN GUM	2,3000	Xanthan gum	11138-66-2	100,0000	2,30000	Binding, Emulsifying, Emulsion stabilising, Gel forming, Skin conditioning, Surfactant, Viscosity controlling
5.	SIDENT 9	1,5000	Hydrated silica	10279-57-9; 1343-98-2; 7631-86-9; 112926-00-8; 63231-67-4	100,0000	1,50000	Abrasive, Absorbent, Anticaking, Bulking, Opacifying, Viscosity controlling
6.	SODIUM SACCHARIN	1,1000	Sodium saccharin	128-44-9; 6155-57-3	100,0000	1,10000	Flavouring, Masking, Oral care
7.	SENSIVA PA 20	0,8000	Phenethyl alcohol	60-12-8	90,0000	0,72000	Masking
			Ethylhexylglycerin	70445-33-9	10,0000	0,08000	Skin conditioning
8.	XYLITOL	0,7000	Xylitol	87-99-0	100,0000	0,70000	Humectant, Skin conditioning
9.	AROMA RASPBERRY 70127	0,6000	Aroma		100,0000	0,60000	Flavouring
			Benzyl alcohol	100-51-6	0,5000	0,00300	Masking, Preservative, Solvent



			Geraniol	106-24-1	0,0123	0,00007	Perfuming, Tonic
			Citronellol	106-22-9; 26489-01-0; 7540-51-4; 1117-61-9	0,0096	0,00006	Perfuming
			Linalool	78-70-6	0,0015	0,00001	Deodorant, Perfuming
			Citral	5392-40-5	0,0001	0,00000	Flavouring, Perfuming
10.	SYMBIO SOLV XC	0,1800	Caprylyl/capryl wheat bran/straw glycosides		50,0000	0,09000	Cleansing, Emulsifying, Emulsion stabilising, Foam boosting, Surfactant
			Fusel wheat bran/straw glycosides		20,0000	0,03600	Antifoaming, Emulsifying, Hydrotrope, Solvent, Surfactant
			Aqua	7732-18-5	15,0000	0,02700	Solvent
			Sodium cocoyl glutamate	68187-32-6	5,0000	0,00900	Cleansing, Surfactant
			Polyglyceryl-5 oleate	86529-98-8	5,0000	0,00900	Emulsifying
			Glyceryl caprylate	26402-26-6	5,0000	0,00900	Emollient, Emulsifying
11.	ORGANIC ALOE EXTRACT 1:2	0,0100	Glycerin	56-81-5	59,5000	0,00595	Denaturant, Humectant, Perfuming, Solvent
			Aloe barbadensis leaf extract	85507-69-3; 94349-62-9	29,9000	0,00299	Emollient, Humectant, Oral care, Skin conditioning
			Aqua	7732-18-5	9,7000	0,00097	Solvent
			Benzyl alcohol	100-51-6	0,6000	0,00006	Masking, Preservative, Solvent
			Sodium benzoate	532-32-1	0,1800	0,00002	Anticorrosive, Masking, Preservative
			Potassium sorbate	24634-61-5; 590-00-1	0,1200	0,00001	Preservative

Tot. **100,000**



## 2.0 PHYSICAL CHEMICAL CHARACTERISTICS and STABILITY

### 2.1 PHYSICAL CHEMICAL CHARACTERISTICS

#### Product information

Physical and chemical characteristics and stability

Chemical-physical characteristics		
General informations		
Tecnical Form	Toothpaste	
Appearance	Gel	Visual
Colour	Off-white	Visual
Odor	Characteristic	Olfactory
Physical characteristics		
DensitY	(20°C): 0,970-1,100 g/cm <sup>3</sup>	Densimeter
ViscositY	(20°C): 22000 - 75000 mPas	Spindle lv64, RPM 12, Twinsting 55%
Chemical characteristics		
pH	5,0 - 6,3 (50 g/l H <sub>2</sub> O)	pH-Metro
Centrifugal stability	Stable	3000 RPM for 1 hour
Microbiological characteristics		
Microbiological specifications		
Bacteria	<= 100	USP Pharmacopea
Yeasts and molds	<= 10	USP Pharmacopea
Staphilococcus Aureus	Absent	USP Pharmacopea
Candida Albicans	Absent	USP Pharmacopea
Pseudomonas Aeruginosa	Absent	USP Pharmacopea



## 2.2 STABILITY

### ACCELERATED STABILITY TEST on ORGANIC TOOTHPASTE 3-7 YR ORANGE RESULTS SUMMARIES

Start Analysis 15/12/2016

End Analysis 15/02/2017

Conservation	TEST	METHOD	SPECIFICATION	Check points (months) and Analytical Results		
				T0	T2	T3
40°C/ 75 % RH	Appearance	IO PIT 005	Off-white gel with characteristic odor	conforms	conforms	Conforms
	pH	Ph.Eur 8.0 2.2.3	5.0 - 6,3	Conforms	Conforms	Conforms
	TYMC	Ph.Eur. 2.6.12	< 10 UFC/ml	Conforms	Conforms	Conforms
	TAMC	Ph.Eur. 2.6.12	< 100 UFC/ml	Conforms	Conforms	Conforms
4-5°C/ 75 % RH	Appearance	IO PIT 005	Off-white gel with characteristic odor	conforms	conforms	Conforms
	pH	Ph.Eur 8.0 2.2.3	5.0 - 6,3	Conforms	Conforms	Conforms
	TYMC	Ph.Eur. 2.6.12	< 10 UFC/ml	Conforms	Conforms	Conforms
	TAMC	Ph.Eur. 2.6.12	< 100 UFC/ml	Conforms	Conforms	Conforms
Room Temperature	Appearance	IO PIT 005	Off-white gel with characteristic odor	conforms	conforms	Conforms
	pH	Ph.Eur 8.0 2.2.3	5.0 - 6,3	Conforms	Conforms	Conforms
	TYMC	Ph.Eur. 2.6.12	< 10 UFC/ml	Conforms	Conforms	Conforms
	TAMC	Ph.Eur. 2.6.12	< 100 UFC/ml	Conforms	Conforms	Conforms
Room Temperature	Efficacy of antimicrobial preservation	Ph.Eur. 8.0 5.1.3	2 Log <sub>10</sub> reduction after 30 hours	Conforms	Conforms	Conforms
	Patch test on sensitive and reactive skin	Guidelines for Assessment of Skin Tolerance of Potentially Irritant Cosmetic Ingredients, 199	Non Irritating	Conforms		

Date: 15/02/17

Study Monitor: Marvel 80 snc



### 3.0 Microbiological Purity

Ingredients microbiological purity raise no concerns. Microbiological quality control is not necessary for low microbiological risk substances. Furthermore, justified cases, materials fulfil the microbiological criteria for cosmetic ingredients, both qualitatively and quantitatively.

**Attached challenge test method ISO 11930: 2012 COD. LAB 1801255**

### 4.0 Information for Packaging Material

The product is packaged in 50 ml Micro Round airless in high density PE with high density PE pump.

The plastic PE that makes up the bottle and the pump are compliant

- D.M. of 21/03/73 published on the G.U. of 20/04/1973 with D.M. 220 of 26/04/1993 and subsequent updates (for materials intended to come into contact with food and drugs);
  - Directive 94/62 / EEC, implemented by D.L. N ° 152/2006 dated 03/04/2006 Art. 226 C 3 on the content of heavy metals.
  - Directive 2023/2006 / EC, Regulation 1935/2004 / CE Regulation 10/2011 UE (Materials and objects intended to come into contact with food products);
  - Regulation 1907 / 2006CE (Reach- SVHC);
  - Regulation 282 / 2008 / EU (Recycle material);
  - Directive 2007/19 / EC (Phthalates)
- Substances Bisphenol-A and Nitrites: it is certified that during production it is not used or intentionally incorporated;
- Recycle it: the material is recyclable. The prevailing operation is the mechanical recovery of the material. The components of the packaging are, for the most part, separable to allow separate collection.

### 5.0 Intended use and reasonably foreseeable

Information on the use of the product	
Proper use of the product	
Description of the normal use	The teeth of kids are particularly sensible to dental caries since the enamel is not strong as adult's enamel. Furthermore, the dental caries in kids' teeth have a direct impact on permanent teeth that, in turn, are weakened.
Indications	It's gentle formulation respects the gums and dental enamel. It contains an amount of xylitol which is slightly lower than the amount contained in our baby toothpaste in order to be less sweet and more suitable to their age. It protects the dental enamel. Xylitol is a not cariogenic substance, it means that it is not fermented by mouth acids and consequently it prevents the enamel corrosion.
Mode of use	Brush the teeth twice a day.
Area of application and surface involved	teeth
Quantity, duration and normal frequency of application	1 - 2 times a day
Other product usage	
Assumptions about a misuse	Non-dangerous product: Do not use if you have known allergies to any component contained.
Assessments of the consequences of any misuse	Non-dangerous product: Keep it away from children. It is advisable to keep it in room temperature at closed It is.



## 6.0 COSMETIC PRODUCT EXPOSURE

Formulation type:	Toothpaste (oral hygiene products)
Product category:	Toothpaste for bay
Main product properties:	cleaning and care of teeth
Target group: general population	> 1 years old
Normal amount of application in grams	0,5 gr (estimated for children's teeth)
Contact time	Rinse after application.
Retention	5%

## 7.0 RAW MATERIAL EXPOSURE IN FORMULA

### 7.1 PURIFIED WATER

INCI NAME aqua

CAS N. 7732-18-1

TEST	METHOD	Lower Lim. - Upper Lim.	u.m.
Apperance		Clear liquid colourles odourles	
Chloride/Nitrate		Conform Ph. Eur.	
Calcium and Magnesium		< 0.2	ppm
Sulphate		Conform Ph. Eur.	
Ammonium		Confrom Ph. Eur.	
Residue on evaporation	EP	< 0.2	ppm
Heavy metals		< 0.001	%
Acidity and alcalinity	EP	< 0.1	ppm
Oxydable substances		Confom Ph. Eur.	
Conducibility		Conform Ph. Eur.	
Total viable count		<4,3	microS.c
		<= 100	cfu/ml



### 7.2 GLYCERIN

INCI NAME: Glycerin

CAS N.. 56-81-5 EINECS / ELINCS 200-289-5

FORMULA C3 H8 O3

PESO MOLECOLARE 92,0

SPECIFICATION	METHOD	Lower Lim. - Upper Lim.	u.m.
Identification A: Refractive	Ph.Eur.	Conform	
Identification B: IR	Ph.Eur.	Conform	
Heavy metals	Ph.Eur.	<=5	ppm
Chloride	Ph.Eur.	<=10	ml HCl 0.1
Impurity A-	Ph.Eur.	<=0,10	%
Other impurity-	Ph.Eur.	<=0,10	%
Total impurity	Ph.Eur.	<=0,50	%
Assay (EP)	Ph.Eur.	98,00 - 101,00	%
Alogenad Compund		<=35	ppm

LD 50 12600 mg/Kg

NOAEL 2000 mg/Kg/die

Information on toxicological effects: Eye irritation (rabb): not irritation. Skin irritation (rabb): not irritation. sensitization (patch-test, man): negative. Mutagenicity (Ames test): negative. (From MSDS)

### 7.3 XANTAN GUM

INCI NAME Xanthan gum

CAS N. 11138-66-2

EINECS / ELINCS 234-394-2

SPECIFICATION	METHOD	Lower Lim. - Upper Lim.	Um
Identificazion IR	FT-IR	Conform	
Loss on dryng	Ph.Eur.	max. 15	%
Ash	Ph.Eur.	max. 16	%
Lead	Ph.Eur.	max. 2	ppm
Assay	Ph.Eur.	91.0 -108.0	%
Total viable count	Ph.Eur	Conform	
Yeast and mould		Conform	
Pathogens		Absen	

LD 50 5000 mg/Kg

NOAEL 500 mg/Kg/die

Information on toxicological effects: Eye irritation (rabb): not irritation. Skin irritation (rabb): not irritation. sensitization (patch-test, man): negative. Mutagenicity (Ames test): negative. (From MSDS)



#### 7.4 SENSIVA PA 20

INCI NAME: Phenethyl Alcohol & Ethylhexylglycerin

Phenethyl Alcohol Cas N. 60-12-8 EINECS 200-456-2

Ethylhexylglycerin Cas N. 70445-33-9 EINECS 408-080-2

Physico-chemical properties	
Colour	nearly colourless - light yellow
Form	liquid
Odour	characteristic
Density (20 °C)	1.006 - 1.020 g/ml
Refractive index (20 °C)	1.517 - 1.531

LD 50 2000 mg/Kg

Information on toxicological effects: Eye irritation (rabb): not irritation. Skin irritation (rabb): not irritation. sensitization (patch-test, man): negative. Mutagenicity (Ames test): negative. (From MSDS)

#### 7.5 SODIUM SACCARIN

INCI NAME SODIUM SACCARIN

CAS N. 6155-57-3

EINECS / ELINCS 204-886-1

SPECIFICATION	METHOD	Lower Lim. - Upper Lim.	U.M.
Aspect		White or almost white, crystalline powder or colourless crystals, efflorescent in dry air.	
Solubility		Freely soluble in water, slightly soluble in alcohol, practically insoluble in ether	
Melting point		226,0 - 230,0	° C
Water		<=15,00	%
Arsenic		<=3,0	ppm
Selenium		<=30	ppm
Lead		<=1,00	ppm
Assay		99,00 - 101,00	%

LD 50 14200 mg/Kg

NOAEL 500 mg/Kg/die

Information on toxicological effects: Eye irritation (rabb): not irritation. Skin irritation (rabb): not irritation. sensitization (patch-test, man): negative. Mutagenicity (Ames test): negative. (From MSDS)





7.6 AROMA RASPBERRY 70127

INCI NAME: AROMA

CAS N. //

EINECS N. //

Appearance	Colourless ( light yellow
Odour	Characteristic
Solubility	1,020-1,045 g/ml
Water Solubility	soluble
Refractive index	1.415-1.435

1 Aromatic composition (Regulation 1334/2008 / EC) :Aroma

2 Limited active substances Reg. 1334/2008 / EC, Annex III): nobody

3 Limited flavoring agents (D.M. n. 107/1992 annex VI / VII): nobody

All flavoring substances or aromatic preparations contained in this product are classified GRAS (generally Recognized as safe) from the FDA and / or FEMA.

ATE(mix) oral = 25.157,2 mg/kg

ATE(mix) dermal = 440.000,0 mg/kg

ATE(mix) inhal = 1.795,9 mg/l/4 h

Acute toxicity: not applicable

Skin corrosion / irritation: not applicable

Serious eye damage / irritation: not applicable

Respiratory or skin sensitization: not applicable

Germ cell mutagenicity: not applicable

Carcinogenicity: not applicable

Reproductive toxicity: not applicable

Specific target organ toxicity (STOT) single exposure: not applicable

Specific target organ toxicity (STOT) repeated exposure: not applicable

Aspiration hazard: not applicable

**N O T E** Depending on the degree of exposure, periodic clinical examinations are indicated. Addition of a stabilizer o

inhibitor can change the toxicological properties of the substance, consult an expert.

LD50 Oral (rat) (mg / kg body weight) = 661

LD50 Dermal (rat or rabbit) (mg / kg body weight) = 3540

LC50 Inhalation (rat) of vapor / dust / aerosol / smoke (mg / 1 / 4h) or gas (ppmV / 4h) = 1.3



7.7 ORGANIC ALOE EXTRACT 1:2

INCI NAME : Aloe Barbadensis Leaf Extract, Glycerin, Aqua

CAS N. 85507-69-3 /94349-62-9, 56-81-5

EINECS N. 287-390-8 /305-181-2, 200-289-5

Density (20° C)	1, 150 ± 1,170
pH	4,0 ± 5, 5
DRY RESIDUE	1.5 ± 2.5 %
APPEARANCE	Clear liquid or light. Opalescent
COLOUR	From pale yellow to light pink
ODOUR	Mild
REFRACTIVE INDEX	1,400 – 1,420
TOTAL VIABLE COUNT	< 100 UFC/ ml

LD 50 > 5000 mg/Kg

Information on toxicological effects: Eye irritation (rabb): not irritation. Skin irritation (rabb): not irritation. sensitization (patch-test, man): negative. Mutagenicity (Ames test): negative. (From MSDS)

7.8 SYMBIO SOLV XC

INCI NAME Caprylyl/Capryl Wheat Bran/Straw Glycosides; Aqua; Fusel Wheat Bran/Straw Glycosides; Polyglyceryl-5 Oleate; Sodium Cocoyl Glutamate; Glyceryl Caprylate

CAS N. 1235391-18-0; 161074-97-1; 7732-18-5; 1235390-87-0; 9007-48-1; 68187-32-6; 26402-26-6

EINECS N. 484-390-1; 231-791-2; 484-370-2; Polymer; 269-087-2; 247-668-1

Assay	65 - 75%
Water	25 - 35%
Aditive	None
Impurities	
1,4-Dioxan	not to be expected
Ethylenoxide	not to be expected
Residual Solvent	not to be expected
Monomers	not to be expected
Free Amines	not to be expected
Nitrosamines	not to be expected
Heavy Metals	< 10 ppm
Pesticides	not known
Polyaromatic Hydrocarbons	not known
Other Impurities	not known
Total Viable Count	< 100 cfu/g

LD 50 > 2000 mg/Kg

Information on toxicological effects: Eye irritation (rabb): not irritation. Skin irritation (rabb): not irritation. sensitization (patch-test, man): negative. Mutagenicity (Ames test): negative. (From MSDS)



**7.9 SIDENT 9**

INCI NAME Hydrated silica  
 CAS N. 112926-00-8, 7631-86-9  
 EINECS N. 215-683-2; 231-545-4

SPECIFICATION	METHOD	Lower Lim. - Upper Lim.	U.M.
Appearance		White powder	
Loss on dryng	ISO 787-2	<= 7	%
pH	ISO 787-9	6,2 – 7,6	
Particular Size	ISO 13330	7 – 11	micron
Surface BET	ISO 92700	30 – 60	m2/g

LD 50 > 10000 mg/Kg  
 NOAEL 8980 mg/Kg/die

Information on toxicological effects: Eye irritation (rabb): not irritation. Skin irrtaion (rabb): not irritation. sensitization (patch-test, man): negative. Mutagenicity (Ames test): negative. (From MSDS)

**7.10 SORBITOL 70%**

INCI NAME Sorbitol, Aqua  
 CAS N. 50-70-4, 7732-18-5  
 EINECS N. 200-061-5, 231-791-2

SPECIFICATION	METHOD	Lower Lim. - Upper Lim.	U.M.
Dry Substances	On d.b.	69.8 – 70.9	%
Mannitol	On d.b.	2.0 – 7.0	%
Reducing Sugar	Ph.Eur.	<= 0.2	%
Lead	Ph.Eur.	<= 0.5	Ppm
Nickel	Ph.Eur.	<= 1	ppm

LD 50 > 5000 mg/Kg  
 NOAEL 15400 mg/Kg/die

Information on toxicological effects: Eye irritation (rabb): not irritation. Skin irrtaion (rabb): not irritation. sensitization (patch-test, man): negative. Mutagenicity (Ames test): negative. (From MSDS)

**8.0 Authorized substances with Reg.1223/2009**

**Sodium Benzoate** - annex V, no 1: benzoic acid and its sodium salt are preservatives allowed for use with max. concentration in ready for use preparation:

- o rinse-off products, except oral products - 2,5%(asacid)
- o oral products -1,7% (acid)
- o leave-on product - 0,5%(acid)

**in formula used: 0,00002%**



**Potassium Sorbate** - annex V, no 4: preservative - max. concentration in ready for use preparation: 0,6%(as acid)

**in formula used: 0,00001%**

**Benzyl Alcohol** annex V, no 34: preservative - max. concentration in ready for use preparation: 1.0%

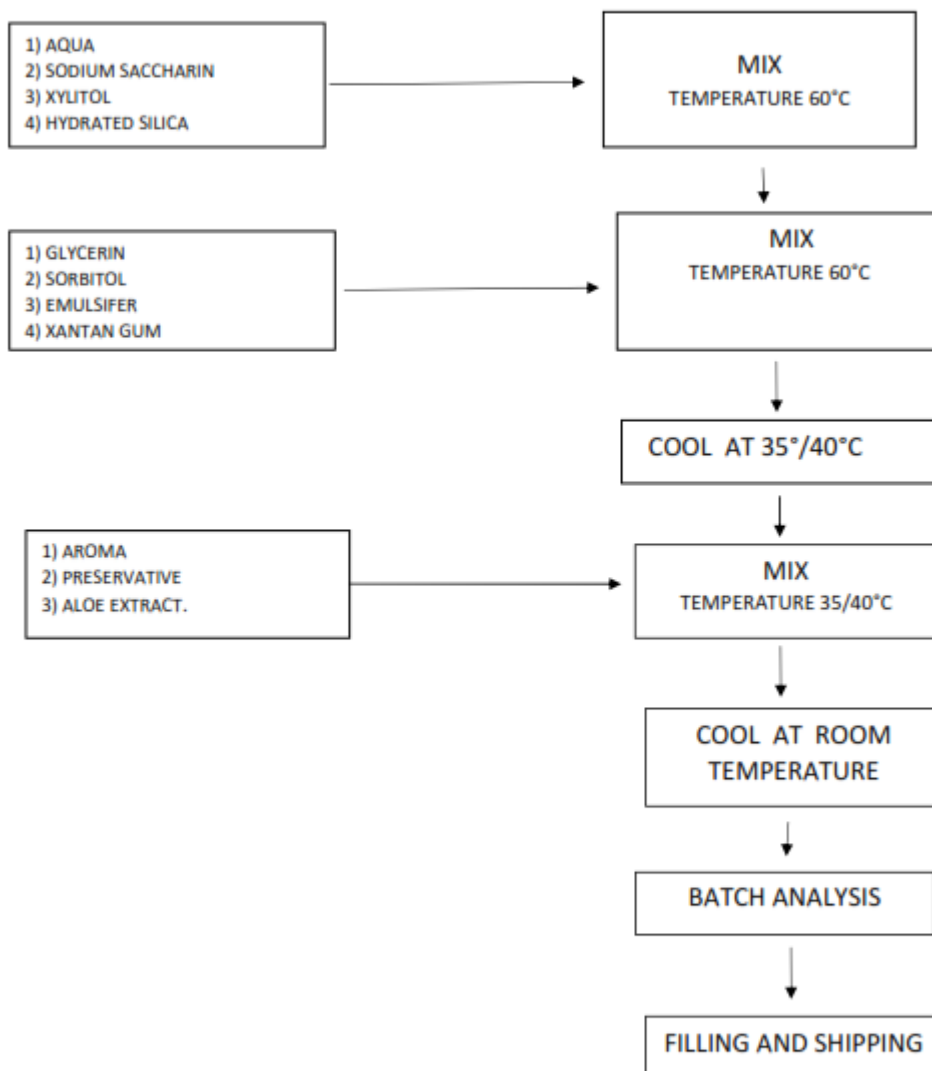
**in formula used: 0,00306%**

## 9.0 METHOD OF PRODUCTION

production method	
production method	
Description of operations	The necessary equipment is prepared: stainless steel turboemulsor (with opening for top loading, discharge cock, rotating shaft), stainless steel fuser, containers (plastic or glass, depending on quantities) for picking and dosage of the ingredients, drum for the storage of the semi-finished product, all previously sanitized.
...	The ingredients are measured in identified containers and inserted into the turboemulsifier according to the following method:
...	
...	1) AQUA (60°C) 2) SODIUM SACCHARIN 3) XYLITOL 4) HYDRATED SILICA
...	Mix for 10 minutes
...	
...	After 10 minutes add
...	1) GLYCERIN 2) SORBITOL 3) EMULSIFER 4) XANTAN GUM
...	Mix for 60 minutes
...	Cool at 35/40°C an add.
...	1) AROMA 2) PRESERVATIVE 3) ALOE EXTRACT.
...	Mix for 30 minutes
...	Cool at Room Temperature
...	
...	Batch Analysis
...	Filling and Shipping
...	
...	

9.1 FLOW CHARD PRODUCTION

**ORGANIC TOOTHPASTE 3-7 YR RASPBERRY (AB061)**  
**FLOW CHART**





## 10.0 EXPOSURE TO COSMETIC COMPONENT COMPONENTS

Final Evaluation on Product Safety	
Considerations on the ingredients	
Considerations related to the toxicological profile of the ingredients	<p>The quality and the toxicological/irritation profile of the raw materials used have been evaluated through the technical documentation provided by the suppliers and the data available in literature.</p> <p>The exposure level of the raw materials that are part of the formulation has been carefully evaluated in order to guarantee that the finished product has not undesired effects.</p> <p>These data were taken from the documentation provided by the suppliers, safety data sheets and toxicological information of raw materials.</p> <p><b>IN ATTACHMENT OCCLUSIVE PATCH TEST PERFORMED BY UNIVERSITY OF FERRARA</b></p>
Considerations on product safety	
Considerations on product safety	<p>The margin of safety (MoS) it is calculated as: -  <math>MoS = NOAEL / SED</math>          where MoS - margin of safety          NOAEL - "No Observed Adverse Effect Level"          SED= Systemic Exposure Dose</p> <p><b>Based on the obtained results, the systemic absorption dose of product's components (SED) during the regular use of the product is very low. The product formulation does not contain any ingredients with carcinogenic, mutagenic and teratogenic effects (CMR). The MoS values of the ingredients, calculated using the NOAEL values, is higher than 230.</b></p> <p><b>Therefore, the use of the product is safe and suitable for consumer from 0 to 6 months of age.</b></p> <p>Table margin of security:          230: at birth          180: Up to 6 months          160: Up to 12 months          150: until 5 years          130: until 10 years,          were more than 230 or were ingredients known for their safety          It is therefore unlikely that there will be no systemic effects for the product in object</p>
...	<p>Possible tests and experiments carried out in order to test the safety of the product. No experiments have been carried out since the product used in the recommended doses, also considering the low retention index per COLIPA directives and the almost immediate rinsing of product after its application, can be considered safe.</p> <p>See the exposure tables.</p>
Possible considerations related to the use of the product on children under the age of three	<p>Even if the product is intended for children under 3 years of age, it is to be considered safe.</p> <p>In any case, the raw materials used in the preparation and the production methods guarantee the safety of the product</p>
Possible considerations related to the use of the product for external intimate hygiene	<p>The product is not intended for external intimate hygiene</p>



## 10 Exposure levels of the ingredients

Cosmetic category	Oral hygiene products
type of product	Toothpaste children
Normal amount of application in grams	0,5
Retention %	5

	Ingredients	% In the product	Absorbim ent %	Absorbim ent in mg/Kg/die (SED) (60 Kg)	Absorbim ent in mg/Kg/die (SED) for baby (10 Kg)	LD50	NOAEL/LOAEL	Safety margin MoS (NOAEL/SED 60 Kg)	Safety margin MoS (NOAEL/SED 10 Kg)
1.	Aqua	60,83797	100,00	0,50698	3,04190	100.000 mg/Kg	100.000,000 mg/Kg/die	197.245,20	32.874,21
2.	Glycerin	18,00595	100,00	0,15005	0,90030	12.060 mg/Kg	2.000,000 mg/Kg/die	13.328,93	2.221,49
3.	Sorbitol	14,00000	100,00	0,11667	0,70000	17.800 mg/Kg	15.400,000 mg/Kg/die	132.000,00	22.000,00
4.	Xanthan gum	2,30000	100,00	0,01917	0,11500	5.000 mg/Kg	500,000 mg/Kg/die	26.086,96	4.347,83
5.	Hydrated silica	1,50000	100,00	0,01250	0,07500	5.620 mg/Kg	8.980,000 mg/Kg/die	718.400,00	119.733,30
6.	Sodium saccharin	1,10000	100,00	0,00917	0,05500	14.200 mg/Kg	500,000 mg/Kg/die	54.545,46	9.090,91
^ NOAEL Note: EUROPEAN COMMISSION DIRECTORATE-GENERAL III INDUSTRY Industrial affairs III: Consumer goods industries Foodstuffs - Legislation and scientific and technical aspects ANNEX III TO DOCUMENT III/5157/97 SCIENTIFIC COMMITTEE FOR FOOD CS/ADD/EDUL/148-FINAL February 1997									
7.	Phenethyl alcohol	0,72000	100,00	0,00600	0,03600	5.000 mg/Kg	120,000 mg/Kg/die	20.000,00	3.333,33
^ NOAEL Note: The EFSA Journal (2009) 930, 1-53									
8.	Xylitol	0,70000	100,00	0,00583	0,03500	5.000 mg/Kg	2.000,000 mg/Kg/die	342.857,20	57.142,86
^ NOAEL Note: <a href="https://echa.europa.eu/registration-dossier/-/registered-dossier/13631/1">https://echa.europa.eu/registration-dossier/-/registered-dossier/13631/1</a>									
9.	Aroma	0,60000	100,00	0,00500	0,03000	-	-	-	-
10.	Caprylyl/capryl wheat bran/straw glycosides	0,09000	100,00	0,00075	0,00450	4.000 mg/Kg	75,000 mg/Kg/die	100.000,00	16.666,67
^ NOAEL Note: Regulatory Toxicology and Pharmacology Acute and repeated doses (28 days) oral toxicity study of Vicenin-1, a-favonoid glycoside isolated from fenugreek seeds in laboratory mice Amit D. Kandhare , Subhash L. Bodhankar a, *, V. Mohan b , Prasad A. Thakurdesai Department of Pharmacology, Poona College of Pharmacy, Bharati Vidyapeeth Deemed University, Erandwane, Paud Road, Pune, 411 038, India Indus Biotech Private Limited, 1, Rahul Residency, Off Salunke Vihar Road, Kondhwa, Pune, 411 048, India									
11.	Ethylhexylglycerin	0,08000	100,00	0,00067	0,00400	2.000 mg/Kg	50,000 mg/Kg/die	75.000,00	12.500,00
12.	Fusel wheat bran/straw glycosides	0,03600	100,00	0,00030	0,00180	4.000 mg/Kg	75,000 mg/Kg/die	250.000,00	41.666,67
^ NOAEL Note: Regulatory Toxicology and Pharmacology Acute and repeated doses (28 days) oral toxicity study of Vicenin-1, a-favonoid glycoside isolated from fenugreek seeds in laboratory mice									



<p>Amit D. Kandhare  , Subhash L. Bodhankar a, *, V. Mohan b, Prasad A. Thakurdesai Department of Pharmacology, Poona College of Pharmacy, Bharati Vidyapeeth Deemed University, Erandwane, Paud Road, Pune, 411 038, India  Indus Biotech Private Limited, 1, Rahul Residency, Off Salunke Vihar Road, Kondhwa, Pune, 411 048, India</p>									
13	Glyceryl caprylate	0,00900	100,00	0,00008	0,00045	5.000 mg/Kg	1.000,000 mg/Kg/die	13.333.330,00	2.222.222,00
^ NOAEL Note: Amended Safety Assessment of Monoglyceryl Monoesters as Used in Cosmetics CIR (Cosmetic index Rewiew)									
14	Polyglyceryl-5 oleate	0,00900	100,00	0,00008	0,00045	5.000 mg/Kg	2.000,000 mg/Kg/die	26.666.670,00	4.444.445,00
^ NOAEL Note: Polyglyceryl Fatty Acid Esters The Panel issued a tentative report for public comment with the conclusion that the following 274 polyglyceryl fatty acid esters are safe as used in cosmetics when formulated to be non-irritating. Cosmetic Ingredient Review Expert Panel 138th Meeting (March 31-April 1, 2016) - Findings									
15	Sodium cocoyl glutamate	0,00900	100,00	0,00008	0,00045	6.000 mg/Kg	3.200,000 mg/Kg/die	42.666.660,00	7.111.111,00
^ NOAEL Note: Safety Assessment of Amino Acid Alkyl Amides as Used in Cosmetics (Cosmetic Ingredient Review)									
16	Benzyl alcohol	0,00306	100,00	0,00003	0,00015	1.620 mg/Kg	400,000 mg/Kg/die	15.686.280,00	2.614.379,00
^ NOAEL Note: EUROPEAN COMMISSION HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL Directorate C - Scientific Opinions C2 - Management of scientific committees II; scientific co-operation and networks Scientific Committee on Food SCF/CS/ADD/FLAV/78 Final									
17	Aloe barbadensis leaf extract	0,00299	100,00	0,00002	0,00015	5.000 mg/Kg	2.000,000 mg/Kg/die	80.267.560,00	13.377.930,00
^ NOAEL Note: Safety studies conducted o a , George A. Burdock Eunju Shin b , Seunghyun Kim , Kenneth N. Jones , Ray A. Matulka Burdock Group, 801 N. Orange Ave., Suite 710, Orlando, FL 32801, USA Univera, Inc., ECONET Center 302-4, Sungsu-dong 2 Ga, Sungdong-gu, Seoul 133-120, Republic of Korea ECONET CTO Of?ce, ECONET Center 302-4, Sungsu-dong 2 Ga, Sungdong-gu, Seoul 133-120, Republic of Korea Alocorp, Inc., 100 Lee Lane, Lyford, TX 78569, USA									
18	Geraniol	0,00007	100,00	0,00000	0,00000	2.000 mg/Kg	558,000 mg/Kg/die	956.571.400,00	159.428.600,00
19	Citronellol	0,00006	100,00	0,00000	0,00000	3.450 mg/Kg	300,000 mg/Kg/die	600.000.000,00	100.000.000,00
20	Sodium benzoate	0,00002	100,00	0,00000	0,00000	2.000 mg/Kg	500,000 mg/Kg/die	3.000.000.000,00	500.000.000,00
^ NOAEL Note: EUROPEAN COMMISSION HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL Directorate C - Scientific Opinions C2 - Management of scientific committees II; scientific co-operation and networks Scientific Committee on Food SCF/CS/ADD/CONS/48 Final 17 Sept 2002									
21	Potassium sorbate	0,00001	100,00	0,00000	0,00000	4.920 mg/Kg	2.500,000 mg/Kg/die	30.000.000.000,00	5.000.000.000,00
^ NOAEL Note: Joint FAO/WHO Expert Committee on Food Additives									
22	Linalool	0,00001	100,00	0,00000	0,00000	3.000 mg/Kg	100,000 mg/Kg/die	1.200.000.000,00	200.000.000,00
23	Citral	0,00000	100,00	0,00000	0,00000	1.000 mg/Kg	200,000 mg/Kg/die		






## SECTION-B: SECURITY EVALUATION FINAL REPORT

Final Assessment	<p>After reviewing the physical, safety and toxicological information of the raw materials and the product itself, the examination of the formula, the expected exposure to the consumer, the warnings and the method of use, we believe that, in the current state of knowledge, the product placed on the market should not cause harms to human health if applied under normal or reasonably foreseeable conditions of use.</p> <p>In the event that significant cases of adverse reactions on the customers caused by this product are reported (eg an abnormal number of side effects), the undersigned must be informed and a re-evaluation must be considered.</p>
Warnings and instructions for use on the label	
Special warnings for the use of the product	There are not particular warnings to the use of the product.
Special instructions for the use of the product	There are not particular warnings to the use of the product.
Final Motivation	
Final Motivation and Reasoning on the security	The product is considered safe since the quality of the raw materials used and their level of use has been carefully assessed. The working and sanitizing methods comply with the cosmetic GMP UNI EN ISO 22716.
<b>Credentials of the safety assessor</b>	
Name and surname:	Nicolò Gatti
Address of residence:	Via Gramsci N. 45 - 26865 San Rocco al Porto (LO) -Italy-
Telephone number:	+393406846569
Other contact details:	gatti_nicolo@virgilio.it
Employment relationship with the responsible person:	Occasional consultancy
Studies and specific experiences:	<p>Master degree in Chemistry and Pharmaceutical Technologies</p> <p>Specific training and experiences: Experimental thesis title: Characterization of the molecular mechanism of action of drugs associated to allergic reactions, Supervisor: Prof. Emanuela Corsini</p> <ul style="list-style-type: none"> <li>-Pharmaceutical technologies and legislation</li> <li>-Pharmacology</li> <li>-Pharmaceutical chemistry</li> <li>-Toxicology</li> <li>-Organic chemistry</li> </ul>
Publications:	<p>Toxicology in Vitro</p> <p>Title: OPTIMIZATION OF THE THP-1 ACTIVATION ASSAY TO DETECT PHARMACEUTICALS WITH POTENTIAL TO CAUSE IMMUNE MEDIATED DRUG REACTIONS</p> <p>Authors: Daniele Corti; Valentina Galbiati, Pharmacy; Nicolò Gatti; Marina Marinovich; Corrado L Galli; Emanuela Corsini</p> <p>Article Type: Research Paper</p>
...	
- Approval of the safety assessment -	
Concluding Declaration on the safety of the cosmetic product:	<p>The undersigned Dr. Nicolò Gatti has carefully verified and evaluated the information received on the documentation provided to me by Zavagli S.a.s., which includes the chemical, physical, safety and toxicological characteristics of the raw materials used in the production of the following cosmetic product.</p> <p>After a careful analysis and evaluation of the formulation of the cosmetic in question, production steps included, and the evaluation of the exposure foreseen by the regulation 1223/2009 for the final consumer and his use I believe that, in the current state of knowledge acquired, the following product placed on the market is to be considered safe and should not cause harm to human health if applied under normal or reasonably foreseeable conditions of use.</p>



	In the event that significant cases of adverse reactions on the customers caused by this product are reported (eg an abnormal number of side effects), the undersigned must be informed and a re-evaluation must be considered.
...	The following evaluation is based on the information acquired from the documentation provided to me by Zavagli S.a.s for the drafting of the following documentation. We decline all liability from the wrong information received. The author of the assessment does not assume any risk for the updating, accuracy, completeness or quality of the information made available by Zavagli S.a.s.
	<b>The oral exposure values of the non-organic ingredients contained in the toothpaste are safe and have no negative effects if ingested</b>
Signature	 Dr. Gatti Nicolò

**N.B. attached**

**1) Patch test**

**2) Challenge test**

**3) GMP Certification**

**CENTRO DI COSMETOLOGIA  
UNIVERSITA' DI FERRARA**  
Direttore: prof. Michele Simonato

Via Fossato di Mortara 17/19 – 44122 Ferrara  
Tel.: 0532.455.295 – Fax: 0532.455.344  
sito: [www.unife.it/centro/cosmetologia](http://www.unife.it/centro/cosmetologia)  
e-mail: [cosm@unife.it](mailto:cosm@unife.it)

**PATCH TEST OCCLUSIVO (Occlusive Patch Test / Patch Test Occlusif)**

**RISULTATI /RESULTS/RESULTATS**

(Serie: 415/ 50)

Il campione è contraddistinto dalla sigla:

*The sample carries the name / l'échantillon se distingue par le sigle:*

**ZAVA.GLI S.a.s. di Gollinucci Gianni & C.**

Via Piave, 374 47023 Cesena (FC)

(Committente: MARVEL 80 s.r.l.)

**Codice Articolo: Z033K11002 Dentifricio BIMBI LAMPONE**

Lotto: LA005

Il test è stato eseguito utilizzando il prodotto:

*The test was performed by using the product / le test a été exécuté utilisant le produit:*

**tal quale/ as it is/ tel quel (X) diluito /diluted/ dilué 1:10 ( )**

Ulteriori informazioni gentilmente fornite dal cliente:

*Further information kindly provided by the customer:*

*Ulterieures informations gentilement fournies par le client:*

de dichiarazione che il prodotto cosmetico sottoposto a test non contiene alcuna sostanza di cui è proibito l'uso in prodotti cosmetici e di igiene corporale (legislazione CEE), che gli agenti conservanti introdotti nella formula del prodotto figurano nella lista positiva approvata dalla CEE, che essi sono utilizzati ad una concentrazione conforme all'uso previsto da questa legge

declaration that the tested cosmetic product does not contain any substance which is forbidden by the EEC legislation as far as the use of cosmetic and personal hygiene products is concerned, that the preservatives in the formula are in the list of the accepted components approved by the EEC and are used in a concentration provided for by the law

déclaration que les produit cosmétique soumis à test ne contient aucune substance don't est interdit l'usage dans les produits cosmétiques et dans l'hygiène corporelle (legislation CEE), que les éléments conservants introduit dans la formule du produit figurent sur la liste positive approuvée par la CEE, que ceux-ci sont utilisés à une concentration conforme aux disposition de la loi

Lotto: LA005

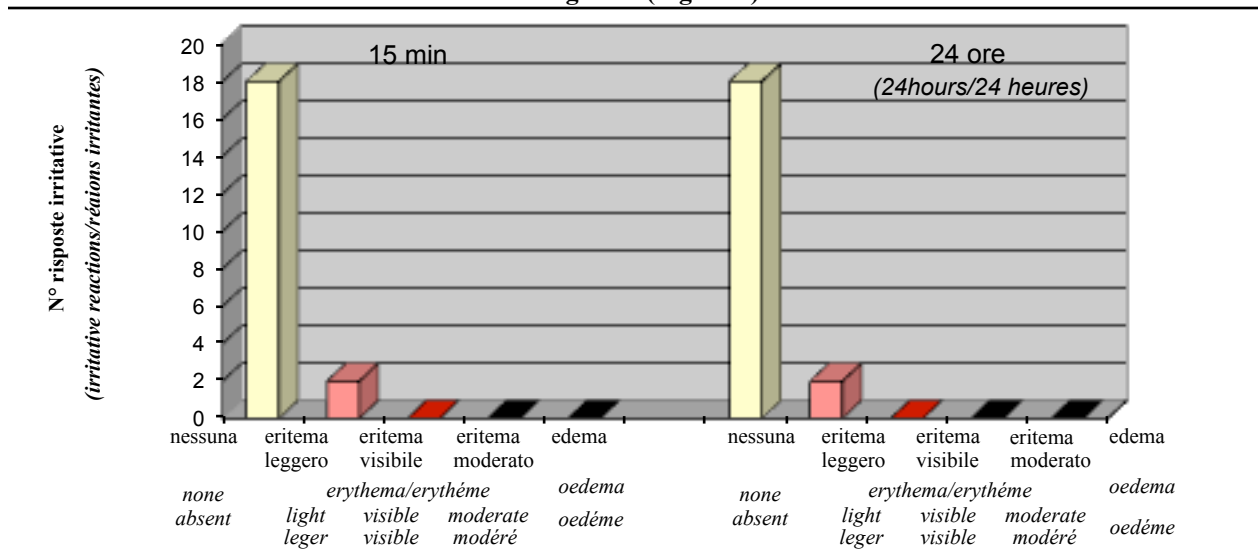
**Tabella 3 (Table 3/Tableau 3)**

Volont. n°	Eta' (Age)	Sesso (Sex)	ERITEMA (erythema/erythème)		EDEMA (oedema/oedème)		VESCICOLE (blisters/vesicles)	
			15'	24h	15'	24h	15'	24h
1	29	M	0	0	0	0	-	-
2	30	M	0	0	0	0	-	-
3	25	F	0	0	0	0	-	-
4	20	F	0	0	0	0	-	-
5	42	F	0	0	0	0	-	-
6	33	F	0	0	0	0	-	-
7	21	F	0	0	0	0	-	-
8	32	F	0	0	0	0	-	-
9	26	M	0	0	0	0	-	-
10	54	M	1	1	0	0	-	-
11	36	M	0	0	0	0	-	-
12	33	M	0	0	0	0	-	-
13	27	F	0	0	0	0	-	-
14	21	F	1	1	0	0	-	-
15	48	M	0	0	0	0	-	-
16	45	F	0	0	0	0	-	-
17	26	F	0	0	0	0	-	-
18	25	F	0	0	0	0	-	-
19	23	M	0	0	0	0	-	-
20	26	F	0	0	0	0	-	-

**Tabella 3** Riassunto dei risultati del patch test

**Table 3 / Tableau 3** Summary of the patch test results / Résumé des résultats du patch test

**Figura 1 (Figure 1)**

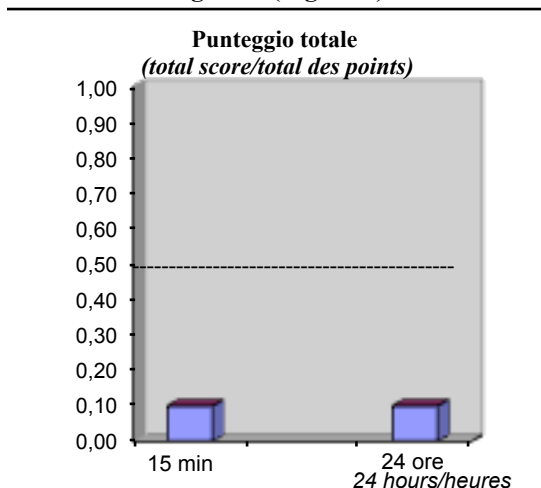


**Figura 1** Numero di risposte irritative (eritematose e/o edematose) riscontrate a 15 minuti e a 24 ore dalla rimozione del patch. Le reazioni eritematose sono state suddivise in tre gruppi in base al grado dell'eritema: leggero, ben visibile o moderato/grave.

**Figure 1** Number of irritative reactions (erythematous and/or oedematous) encountered at 15 minutes and at 24 hours after the removal of the patch. Erythematous reactions have been sorted out into three groups according to the reaction degree: light, clearly visible and moderate/serious erythema.

**Figure 1** Nombre de réactions irritantes (erythemateuses et/ou oedemateuses) rencontrées à 15 minutes et 24 heures du déplacement du patch. Les réactions erythemateuses ont été sous divisées en 3 groupes sur la base du niveau de la réaction: léger bien visible ou modéré/grave.

**Figura 2 (Figure 2)**



**Figure 2** Indice medio di irritazione (punteggio totale). I punteggi relativi a risposte eritematose leggere, ben visibili e moderate/gravi (incluso l'eventuale edema associato) sono indicati rispettivamente in blu, rosso e nero. La linea tratteggiata indica il limite oltre il quale il prodotto testato è lievemente irritante

**Figure 2** Mean index of irritation (total score). The scores due to light, clearly visible and moderate/serious erythematous reactions (including the associated oedema) are shown in blue, purple and black, respectively. The dashed line indicates the threshold above which the product is to be classified as slightly irritating

**Figure 2** L'indice moyen d'irritation (total des points). Les points dus aux reactions erythemateuses legeres, bien visibles, modérées/graves sont indiqués respectivement en bleu, rouge sombre et noir. La ligne hachurée indique le seuil au-delà duquel le produit testé est classifié comme legerement irritant

Il prodotto dermatologicamente testato, applicato tal quale in condizioni occlusive alla cute sana di 20 volontari, ha ottenuto un indice medio di irritazione pari a

**0,10** (zero, dieci) dopo 15 minuti dalla rimozione della Finn Chamber

**0,10** (zero, dieci) dopo 24 ore dalla rimozione della Finn Chamber

In base alla scala utilizzata (Tabella 2), il prodotto può essere classificato come:

*The dermatologically tested product, applied as it is under occlusive condition on the healthy skin of 20 volunteers, resulted in a mean index of irritation of*

**0,10** (zero, ten) 15 minutes after the removal of the Finn Chamber

**0,10** (zero, ten) 24 hours after the removal of the Finn Chamber

*According to the evaluation scale used (Table 2), the product can be classified as:*

*Le produit testé dermatologiquement, appliqué tel quel dans les conditions occlusives sur les peaux saines de 20 volontaires a obtenu un indice moyen d'irritation égal à:*

**0,10** (zero, dix) après 15 minutes du déplacement du Finn Chamber

**0,10** (zero, dix) après 24 heures du déplacement du Finn Chamber

*Sur la base de l'échelle utilisée (Tableau 2), le produit peut être classifié comme:*

**ZAVA.GLI S.a.s. di Gollinucci Gianni & C.**

Via Piave, 374 47023 Cesena (FC)

(Committente: MARVEL 80 s.r.l.)

**Codice Articolo: Z033K11002 Dentifricio BIMBI LAMPONE**

Lotto: LA005

**NON IRRITANTE**

se applicato su cute umana

**NOT IRRITATING**

if applied to human skin

**NON IRRITANT**

s'applique sur la peau humaine

**Data:** 29/01/18

**Coordinatore**

Dott.ssa Leda Montesi (Farmacista Cosmetologa)

**Sperimentatore**

Dott. Simone Sirena (Medico Farmacologo)

**Responsabile delle prove**

Prof. Michele Simonato (Medico Tossicologo)

**Supervisione**

Dott. Alex Gezzi (Medico Dermatologo)

## REPORT CHALLENGE TEST METODO ISO 11930:2012

COD. LAB.: 1801255
Data emissione: 28/02/2018
Rev. 0
Challenge test

Valutazione “*in vitro*” del sistema preservante di un prodotto cosmetico in base al metodo ISO 11930:2012, secondo il Regolamento 1223/2009

*According the European Regulation 1223/2009 the “in vitro” evaluation of the preservative system in cosmetic products by the method ISO 11930:2012.*

### **Committente / Customer:**

**ZAVA.GLI SAS di GOLLINUCCI GIANNI & C.**  
Via Piave, 374  
47023 CESENA (FC) - ITALY

### **Prodotto /Product:**

**COD. ART. Z033K11002-3-4-5-9-10-11 DENTIFRICIO BABY – L.25012018-005**

Data ricevimento campione / *Reception date:* 29/01/2018

Periodo di analisi: *Period of analysis:*

Data inizio analisi / *Date of testing:* 29/01/2018

Data fine analisi / *End Date test:* 26/02/2018

**CHALLENGE TEST:  
METODO ISO 11930:2012  
DELL'EFFICACIA PRESERVANTE**

**1-SCOPO**

Verificare "in vitro" l'efficacia del sistema di conservazione e, quindi, la stabilità microbiologica di formulazioni cosmetiche entro un determinato intervallo di tempo, in base al Regolamento Europeo 1223/2009.

Il Challenge test è eseguito secondo il metodo ISO (International Organization for Standardization) 11930:2012.

La valutazione complessiva della protezione antimicrobica comprende le caratteristiche chimiche del sistema conservante, ma anche la tipologia della formulazione, il packaging e il processo di fabbricazione (norme GMP).

**2-CRITERI DI ACCETTABILITÀ: CRITERIO A e B METODO ISO 11930:2012**

Il campione in esame deve presentare attività inibente nei confronti dei microrganismi utilizzati secondo i criteri di accettabilità secondo i criteri di accettabilità del metodo ISO come riportato nella tabella B.1:

**CHALLENGE TEST:  
ISO 11930 Method : 2012 OF THE  
EFFICACY PRESERVATIVE**

**1-SCOPE**

According to the European Regulation 1223/2009 the "in vitro" evaluation of the effectiveness of the preservative system and, therefore, the microbiological stability of the cosmetics formulation.

The Challenge test is performed by ISO (International Organization for Standardization) method 11930:2012.

This evaluation of the antimicrobial protection comprises chemical preservation, but also the characteristics of the formulation, the packaging and the manufacturing process (GMP).

**2-ACCEPTANCE CRITERIA: A and B CRITERION**

**METHOD ISO 11930: 2012**

According to the criteria of acceptability of the ISO method the specimen was tested for the preservative efficacy testing against the microorganisms as described in the following table B.1:

Table B.1 — Evaluation criteria

Log reduction values ( $R_x = \lg N_0 - \lg N_x$ ) required <sup>a</sup>								
Micro-organisms	Bacteria			<i>C. albicans</i>			<i>A. brasiliensis</i>	
Sampling time	T7	T14	T28	T7	T14	T28	T14	T28
Criteria A	≥3	≥3 and NI <sup>b</sup>	≥3 and NI	≥1	≥1 and NI	≥1 and NI	≥0 <sup>c</sup>	≥1
Criteria B	Not performed	≥3	≥3 and NI	Not performed	≥1	≥1 and NI	≥0	≥0 and NI

<sup>a</sup> In this test, an acceptable range of deviation of 0,5 log is accepted (see 5.7).  
<sup>b</sup> NI: no increase in the count from the previous contact time.  
<sup>c</sup>  $R_x = 0$  when  $\lg N_0 = \lg N_x$  (no increase from the initial count).

**Microrganismi utilizzati ATCC\***

ATCC\* microorganisms for antibacterial testing:

\*ATCC (American Type Collection Control)

<i>Staphylococcus aureus</i>	ATCC* 6538	G + bacteria	Microbiologics Lotto 485-707-1 Exp. 03/2018	6.2x10 <sup>6</sup> cfu/g
<i>Pseudomonas aeruginosa</i>	ATCC* 9027	G - bacteria	Microbiologics Lotto 484-715-1 Exp. 04/2018	6.6x10 <sup>6</sup> cfu/g
<i>Escherichia coli</i>	ATCC* 8739	G - bacteria	Microbiologics Lotto 483-582-1 Exp. 07/2018	4.7x10 <sup>6</sup> cfu/g
<i>Candida albicans</i>	ATCC*10231	Lievito / Yeast	Microbiologics Lotto 392-705-1 Exp. 03/2018	6.5x10 <sup>5</sup> cfu/g
<i>Aspergillus brasiliensis</i>	ATCC*16404	Muffa/ Molds	Microbiologics Lotto 392-505-1 Exp. 02/2018	6.0x10 <sup>5</sup> cfu/g

Customer: Microbiologics (BIOLIFE):

Fornitura di ceppi titolati per l'inoculum al tempo 0 / Delivery of titrated strains for inoculation at time 0.

## RISULTATI / RESULTS

**Prodotto / Product:**

**ZAVA.GLI SAS**

**COD. ART. Z033K11002-3-4-5-9-10-11 DENTIFRICIO BABY – L.25012018-005**

**Tabella 1:** Conta microbica totale per ogni microorganismo di prova Metodo ISO

Microrganismi/ Microorganisms test	ATCC	T <sub>0</sub> inoculum	T <sub>7</sub> gg.	T <sub>14</sub> gg.	T <sub>28</sub> gg.
<i>Stafilococcus aureus</i>	6538	6.2x10 <sup>6</sup> cfu/g	<10	<10	<10
<i>Pseudomonas aeruginosa</i>	9027	6.6x10 <sup>6</sup> cfu/g	7,0x10 <sup>3</sup>	<10	<10
<i>Escherichia coli</i>	8739	4.7x10 <sup>6</sup> cfu/g	2,8x10 <sup>3</sup>	<10	<10
<i>Candida albicans</i>	10231	6.5x10 <sup>5</sup> cfu/g	<10	<10	<10
<i>Aspergillus brasiliensis</i>	16404	6.0x10 <sup>5</sup> cfu/g	3,0x10 <sup>3</sup>	<10	<10

**Table 1:** Total viable count for each test microorganisms Method ISO

I dati esprimono le unità formanti colonia (CFU) relative ad 1 grammo di prodotto.

T= intervallo di tempo di analisi.

Conta microbica totale prima dell'esecuzione del Challenge test: <10 cfu/g.

The data express the colony forming units (CFU) relative to 1 gram of product.

T= time of analysis.

Total Vital Count before the execution of the test: <10 cfu/g.

**Tabella 2:** Riduzione microbica in logaritmo (Log<sub>10</sub>) in funzione del tempo (T)/

Microrganismi/ Microorganisms test	ATCC	RIDUZIONE LOG <sub>10</sub> / LOG <sub>10</sub> REDUCTION			
		T <sub>7</sub> gg.	T <sub>14</sub> gg.	T <sub>28</sub> gg.	CRITERIO DI ACCETTABILITÀ: Acceptance criterion A ISO
<i>Stafilococcus aureus</i>	6538	≥6 Log	NI	NI	ACCETTABILE / ACCEPTABLE
<i>Pseudomonas aeruginosa</i>	9027	≥3 Log	6 Log	NI	ACCETTABILE / ACCEPTABLE
<i>Escherichia coli</i>	8739	≥3 Log	6 Log	NI	ACCETTABILE / ACCEPTABLE
<i>Candida albicans</i>	10231	≥5 Log	NI	NI	ACCETTABILE / ACCEPTABLE
<i>Aspergillus brasiliensis</i>	16404	≥2 Log	5 Log	NI	ACCETTABILE / ACCEPTABLE

**Table 2:** Microbial reduction expressed in logarithm (Log<sub>10</sub>) in function of time (T):

I dati esprimono la riduzione microbica in LOG<sub>10</sub> in funzione del tempo. NI: nessun incremento

The data express the LOG<sub>10</sub> reduction of inoculated germs relative to established control intervals. NI: No Increase.

Convalida del Metodo di analisi per il Challenge test / Validation of the Method of the challenge test:

Diluizione – neutralizzazione e tecnica in superficie su Tryptic Soy Agar-Tween-Lecitine / Dilution-neutralization method and spread plate technique on Tryptic Soy Agar-Tween-Lecitin (LTHT).

TSA LTHT per i batteri: Oxoid REF. BO0330V Lotto/ Lot. 001168 Exp. Date: 2018Apr02.

SDA LTHT: Sauboraud Agar per i miceti: Oxoid REF. BO1155T Lotto/ Lot. 001239 Exp. Date: 2018Mar21.

Quality control: Sterility Test: incubation 48 hours at 37°C and 48 hours at 25°C: no growth: RESULT: Satisfactory

Fertility Test (Microbiological quality criteria according to European Pharmacopoeia):

aerobiosis incubation 48 hours at 37°C. Reading at 18-72 hours: growth. RESULT: Satisfactory.



**GRAFICI**

In ogni grafico è riportato la riduzione della carica microbica in funzione del tempo per ogni ceppo microbico di prova.

**CHARTS**

In eac graph is shown microbial reduction a function of time for each test microbial strain.

PRODOTTO / PRODUCT:

**ZAVA.GLI SAS**

**COD. ART. Z033K11002-3-4-5-9-10-11 DENTIFRICIO BABY – L.25012018-005**

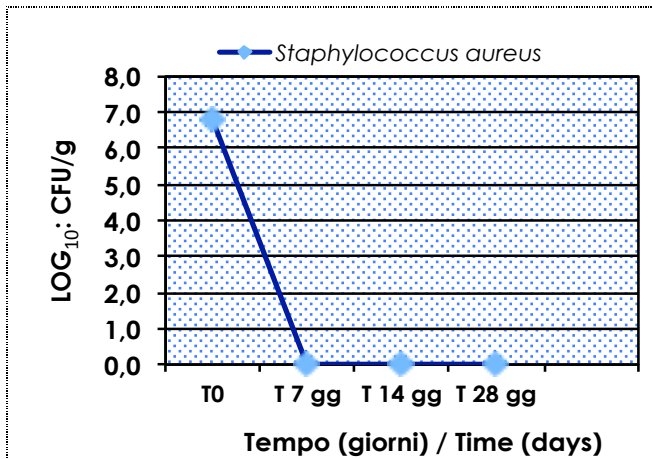


Figura 1: Batteri Gram positivi: *Staphylococcus aureus*

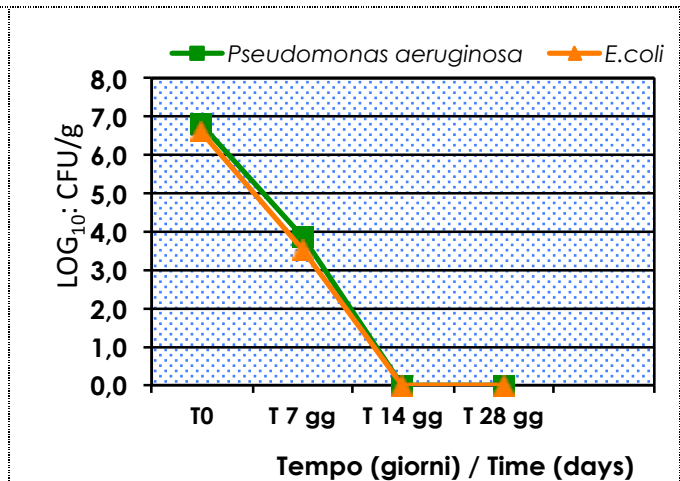


Figura 2\_Batteri Gram negativi: *Escherichia coli* (enterobatteri) e *Pseudomonas aeruginosa* (ambientale)

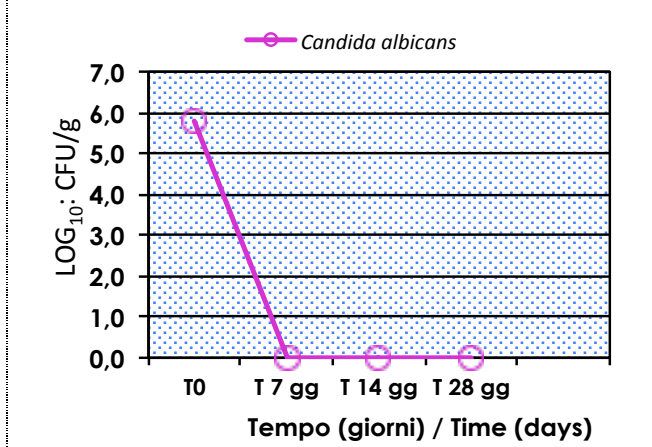


Figura 3: Lieviti *Candida albicans*

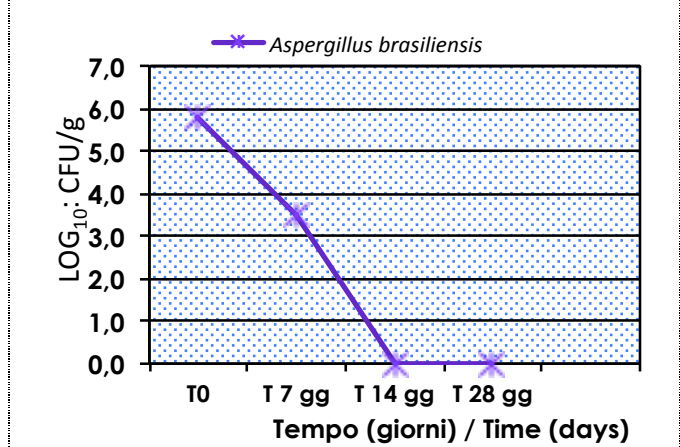


Figura 4: Muffe *Aspergillus brasiliensis*

**Legenda:** LOG<sub>10</sub>: valore logaritmo dei risultati  
 CFU/g: unità formanti colonia relative ad 1 grammo (g) di campione analizzato.

**Explanation:** LOG<sub>10</sub>: logaritm value of the results.  
 CFU/g: colony forming units relative to 1 gram (g) of test product.

I risultati analitici si intendono riferiti esclusivamente al campione analizzato. Il presente Documento non può essere riprodotto neppure in forma parziale salvo approvazione scritta da parte del Responsabile. Questo report è valido elettronicamente, perché costituisce copia esatta controllata e firmata del certificato di analisi originale, conservato in accordo alle procedure di Norme di Buona Prassi di Laboratorio. / The results is referred only to the sample analyzed. The present certificate of analysis cannot be reproduced even in part without permission of Responsible of certificate. This report is electronically valid, because it is controlled and exact copy of the signed original of the certificate of analysis, stored procedures according to requirements of Good Laboratory Practice.

## CONCLUSIONE

In base ai criteri di valutazione raccomandati dal ISO 11930:2012 il sistema preservante è accettabile.

Il prodotto denominato:

---

## CONCLUSION

*According to the assessment criteria recommended by the ISO Method 11930:2012 the preservative system is acceptable.*

*The results obtained by testing the product called:*

---

### ZAVA.GLI SAS

#### COD. ART. Z033K11002-3-4-5-9-10-11 DENTIFRICIO BABY – L.25012018-005

i risultati ottenuti del Challenge test sono accettabili secondo il criterio A:

il rischio microbiologico è **ACCETTABILE**.

Il prodotto è considerato protetto contro la proliferazione microbica durante il suo utilizzo.

È necessario considerare i fattori di controllo che non sono collegati con la formulazione, quali le modalità di produzione e di confezionamento in conformità alle Norme di Buona Fabbricazione (GMP) per la sicurezza microbiologica del cosmetico.

---

*the results of the Challenge test are acceptable according to criterion A:*

*the microbiological risk is ACCEPTABLE.*

*The product is considered protected against the microbial proliferation when using it.*

*It is necessary to consider the control factors not related to the formulation, such as the system of production and packaging in accordance with Good Manufacturing Practice (GMP) for the microbiological quality of the cosmetic product.*

---

Data report : 28/02/2018



(Firma / Signature) Dr.ssa Alberta Vandini  
n. AA\_039993 O.N.B.)



in collaborazione con il CENTRO DI COSMETOLOGIA  
UNIVERSITÀ DI FERRARA

#### Bibliografia / References:

- I. Regulation (EC) No 1223/2009 (the "Cosmetic Products Regulation"), replaced the European Union (EU) Cosmetics Directive 76/768/EEC, which harmonizes and simplifies the cosmetics regulations across the EU member states by Product Information File (PIF).
- II. COLIPA Guidelines "Product Information File (PIF)"- December 15<sup>th</sup> 2011.
- III. ISO (International Organization for Standardization) 11930:2012.

# SGS

Certificate IT16/0277

The management system of

## MARVEL 80 S.r.l.

Via dell'Industria, 21/23 - 60031 Castelplanio (AN) - Italy

Has been assessed and certified as meeting the requirements of

### ISO 22716

## Cosmetics – Guidelines on Good Manufacturing Practices (GMP)

(First edition 2007-11-15)

For the following activities

**Production of creams, emulsions, lotions, fluids, gels and oils for the skin (hands, face, body), bath and shower preparation, hair care products water, oil alcohol, silicone based (hot/cold preparation); shaving, teeth and mouth care, tanning products.**

The responsibility for the quality of the individual batches of the cosmetic products labelled, packed and stored lies with the organization

This certificate is valid from 19/05/2016 until 19/05/2019  
and remains valid subject to satisfactory surveillance audits,  
Issue 1. Certified since 19/05/2016.

Authorised by



Pieter Weterings  
Certification Manager  
SGS Belgium NV

SGS House - Noordlaan 87 - 2030 Antwerp - Belgium  
t +32 (0)3 545 48 48 f +32 (0)3 545 48 49 www.sgs.com

Page 1 of 1



This document is a Web version of SGS certificate for electronic use exclusively. It shall only be available by clicking on SGS Certification Mark which has been posted on Your website. It shall not be printed in anyway. This document is copyright protected. No content or appearance may be reproduced without the express written permission of SGS. Any misuse, alteration, forgery or falsification is unlawful.