Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

COSMETIC PRODUCT SAFETY REPORT

PRODUCT: Organic Acne Gel 30 gram

DATE: 6 March 2023

Responsible Person: Samina Beqiraj
BioSam
31 Tylecroft Road
London SW16 4BL

OXFORD BIOSCIENCES
Safety Assessment, Analysis, Research & Testing

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

PART A – Cosmetic Product Safety Information

1. Quantitative and qualitative composition

	Ingredient INCI name	CAS	Function	Limits	Amount
1	Chamomilla recutita flower water	84082-60-0	Fragrance		69.00
2	Glycerin	56-81-5	Denaturant, hair		10.60
3	Aqua	7732-18-5	Solvent		9.499
4	Ascorbic acid	50-81-7 / 62624	Antioxidant, buffering,		2.00
5	Xanthan gum	11138-66-2	Binding, emulsifying,		2.00
6	Propylene glycol	57-55-6	Humectant, skin		1.001
7	Melaleuca alternifolia leaf oil	85085-48-9 /	Antioxidant, perfuming		1.00
8	Benzyl alcohol	100-51-6	Perfuming, preservative,	III/45, V/34	0.90
9	Citric acid	77-92-9 / 5949	Buffering, chelating,		0.67
10	Lactic acid	50-21-5	Buffering, humectant, skin		0.66
11	Aloe barbadensis leaf juice	85507-69-3 /	Skin conditioning		0.50
12	Glycolic acid	79-14-1	Buffering		0.484
13	Salicylic acid	69-72-7	Antidandruff, hair	III/98, V/3	0.20
14	Malic acid	97-67-6	Buffering		0.198
15	Tartaric acid	133-37-9 / 147	Buffering, fragrance		0.198
16	Pyrus malus fruit extract	85251-63-4	Skin conditioning		0.196
17	Citrus limon fruit extract	92346-89-9 /	Fragrance, skin	II/358 R1	0.196
18	Vaccinium myrtillus fruit extract	84082-34-8	Skin conditioning		0.196
19	Saccharum officinarum extract	91722-22-4	Moisturising, skin		0.196
20	Vitis vinifera fruit extract	84929-27-1	Skin conditioning		0.196
21	Carbomer	9007-20-9 / 9003	Emulsion stabilising, gel		0.10
22	Sodium hydroxide	1310-73-2	Buffering, denaturant	III/15a	0.10
23	Phenoxyethanol	122-99-6	Preservative	V/29	0.088
24	Sorbic acid	110-44-1	Preservative	V/4	0.05
25	Ethylhexylglycerin	70445-33-9	Deodorant, skin		0.012
26	Disodium EDTA	139-33-3	Chelating, viscosity		0.01

Allergens present in this product and estimated amounts*:
Limonene: 0.04%

* The presence of these allergens must be indicated in the list of ingredients when their concentration exceeds: 0.001% in leave-on products or 0.01% in rinse-off products

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

2. Physical & chemical properties and stability

2.1.1 Physical/chemical properties of ingredients (substances or mixtures)

See section 1. Quantitative and qualitative composition – additional specification of ingredients.

Ref. 1. 1 **Chamomilla recutita flower water**

Chamomilla recutita flower water is an aqueous solution of the steam distillate obtained from the flowers of Chamomilla recutita (L.), Compositae.

Ref. 1. 2 **Glycerin**

Glycerin, or glycerol, is a simple polyol compound, with three hydroxyl groups, which is a colourless, odourless, viscous liquid. Glycerin is naturally occurring in all animals and plant matter in combined form as glycerides in fats and oils, or, in intracellular spaces, as lipids. The glycerol backbone is central to all triglycerides, and its molecular formula is $C_3H_8O_3$. In December 2014 the Cosmetic Ingredient Review (CIR) Expert Panel also noted the high frequency of use that is reported for glycerin and the low instances of reports of toxicity, irritation, and sensitisation and that glycerin is GRAS for food packaging and as a multiple-purpose food substance. When considering the safety of glycerin, the Panel noted that it is naturally occurring in animal and human tissues, including the skin and blood. The data demonstrated low oral and dermal toxicity for multiple animal species and humans, in both acute and long-term studies. The CIR Expert Panel concluded that glycerin is safe in the present practices of use and concentration described in this safety assessment.

Ref. 1. 3 **Aqua**

Aqua (water) is a liquid at standard temperature and pressure with the chemical formula H_2O: one molecule of water has two hydrogen atoms covalently bonded to a single oxygen atom.

Ref. 1. 4 **Ascorbic acid**

Ascorbic acid is a naturally occurring organic compound, commonly known as vitamin C, with antioxidant properties. Ascorbic acid is also a common food additive (E300) and its molecular formula is $C_6H_8O_6$.. The Cosmetic Ingredient Review (CIR) Expert Panel reviewed the scientific data and concluded that Ascorbic acid is safe for use in cosmetic and personal care products in the present practice of use and concentration as described in this safety assessment.

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

2. Physical & chemical properties and stability

2.1.1 Physical/chemical properties of ingredients (substances or mixtures)

See section 1. Quantitative and qualitative composition – additional specification of ingredients.

Ref. 1. 5 **Xanthan gum**

Xanthan gum is a high molecular weight heteropolysaccharide gum secreted by the bacterium Xanthomonas campestris, commonly used as a food additive, rheology modifier, and a stabiliser with the molecular formula $C_{35}H_{49}O_{29}$. It is composed of pentasaccharide repeat units, comprising glucose, 6-acetyl mannose, 4,6-pyruvylated mannose and glucuronic acid in the molar ratio 2.0:2.0:1.0. Xanthan gum is produced by a pure culture fermentation of a carbohydrate (glucose, sucrose, or lactose) with Xanthomonas campestris and is composed of glucose, glucuronic acid, 6-acetyl mannose and 4,6-pyruvylated mannose residues. After a fermentation period, the polysaccharide is precipitated from a growth medium with isopropyl alcohol, dried, and ground into a fine powder. Xanthan gum has a long history of safe use worldwide. It was approved for use in foods in 1968 and is accepted as a safe food additive in the USA, Canada, and European countries, with the E number E415. In 2016 the Cosmetic Ingredient Review (CIR) Expert Panel concluded that Xanthan gum is safe in the present practices of use and concentration, as described in this safety assessment.

Ref. 1. 6 **Propylene glycol**

Propylene glycol, (1,2-propanediol or propane-1,2-diol) is an organic compound (a diol or double alcohol) with the formula $C_3H_8O_2$. It is a colourless, nearly odourless, clear, viscous liquid with a faintly sweet taste, hygroscopic and miscible in water and ethanol. In 1994 the Cosmetic Ingredient Review Expert Panel concluded that Propylene glycol is safe, when formulated to be non-irritating at concentrations up to 50%, in the present practices of use and concentration as described in this safety assessment. In 2012 the CIR Expert Panel reaffirmed its 1994 conclusion.

Ref. 1. 7 **Melaleuca alternifolia leaf oil**

Melaleuca alternifolia leaf oil is the oil distilled from the leaves of the Tea tree, Melaleuca alternifolia, Myrtaceae.

OXFORD BIOSCIENCES
Safety Assessment, Analysis, Research & Testing

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

2. Physical & chemical properties and stability

2.1.1 Physical/chemical properties of ingredients (substances or mixtures)

See section 1. Quantitative and qualitative composition – additional specification of ingredients.

Ref. 1. 8 **Benzyl alcohol**

Benzyl alcohol is an aromatic alcohol with the formula C_7H_8O. Benzyl alcohol is an aromatic alcohol that is used in cosmetics as a fragrance component, preservative, solvent, and/or viscosity decreasing agent. Benzyl Alcohol is used as a food additive, in OTC drug preparations, and in clinical settings. It is a membrane fluidiser and a local anesthetic. Benzyl alcohol is metabolised to Benzoic acid, which is then conjugated with glycine and excreted as hippuric acid. EPA reviews of mouse and rat oral-dosing studies conducted by the NTP determined subchronic and chronic oral reference doses for humans of 1 and 0.3 mg/kg/day, respectively. The WHO established an ADI of up to 5 mg/kg. Investigators considered Benzyl alcohol to be a moderate respiratory hazard and toxic when administered by the parenteral route. It produced severe irritation when applied to the skin of nude mice. In clinical settings, Benzyl alcohol can produce nonimmunologic contact urticaria or nonimmunologic immediate contact reactions. It was not a sensitiser when tested in a maximisation test at 10% in petrolatum, and demonstrated a low incidence of sensitisation in provocation studies. The available data are insufficient to support the safety of Benzyl alcohol in cosmetic products in which a primary route of exposure is inhalation. Based on the available data, the Cosmetic Ingredient Review (CIR) Expert Panel concluded in 2001, and reconfirmed their conclusion in 2011, that Benzyl alcohol is safe for use in cosmetic formulations at concentrations up to 5% although Cosmetics Europe limits its maximum usage to 1%.

Ref. 1. 9 **Citric acid**

Citric acid is a hygroscopic α and β hydroxytricarboxylic acid, naturally found in citrus fruits, with the molecular formula $C_6H_8O_7$. Structurally Citric acid is an α-hydroxy acid (AHA) and is a slightly stronger acid than typical carboxylic acids because the anion can be stabilised by intramolecular hydrogen-bonding from other protic groups on citric acid. Industrial Citric acid is produced by mycological fermentation of crude sugar stocks by strains of Aspergillus niger. The FDA has listed Citrus acid as Generally Recognized As Safe (GRAS) and it is commonly used in the food industry as an acidifier and flavouring agent and has the food additive number E330. In 2014 the Cosmetic Ingredient Review (CIR) Expert Panel concluded that Citric acid is safe in the present practices of use and concentration, as described in this safety assessment.

Ref. 1. 10 **Lactic acid**

Lactic acid is a carboxylic acid with the chemical formula $C_3H_6O_3$. It is an alpha hydroxy acid (AHA) with a hydroxyl group adjacent to the carboxyl group. Lactic acid is hygroscopic, and is miscible with water and ethanol. In 1998 the CIR Expert Panel concluded that Lactic acid is safe for use in cosmetic products at concentrations ≤10%, at final formulation pH ≥ 3.5, when formulated to avoid increasing sun sensitivity. However, in 2004, the Scientific Committee On Cosmetic Products and Non-Food Products (SCCNFP - the precursor to Cosmetics Europe) reiterated their June 2000 conclusion which suggested for inclusion in cosmetic products that lactic acid can be used up to a maximum level of 2.5 % and a pH ≥ 5.0. Cosmetics Europe, however, does not restrict the percentage of lactic acid nor define a pH range. Lactic acid is safe in the present practices of use and concentration described in this safety assessment.

OXFORD BIOSCIENCES
Safety Assessment, Analysis, Research & Testing

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

2. Physical & chemical properties and stability

2.1.1 Physical/chemical properties of ingredients (substances or mixtures)

See section 1. Quantitative and qualitative composition – additional specification of ingredients.

Ref. 1. 11 **Aloe barbadensis leaf juice**

Aloe barbadensis leaf juice is the juice obtained from leaves of the aloe vera plant, Aloe barbadensis, Xanthorrhoeaceae. In 2007, the Cosmetic Ingredient Review (CIR) Expert Panel concluded that anthraquinone levels in the several Aloe Barbadensis extracts are well understood and can conform to the industry-established level of 50 ppm. Although the phototoxicity anthraquinone components of Aloe plants have been demonstrated, several clinical studies of preparations derived from Aloe barbadensis plants demonstrated no phototoxicity, confirming that the concentrations of anthraquinones in such preparations are too low to induce phototoxicity and therefore Aloe barbadensis leaf juice is safe as a cosmetic ingredient in its current practice of use and concentration as described in this safety assessment.

Ref. 1. 12 **Glycolic acid**

Glycolic acid is an α-hydroxy acid (AHA). It is a colourless, odourless, and hygroscopic crystalline solid with the molecular formula $C_2H_4O_3$. In 1997 Glycolic acid was assessed by the Cosmetic Ingredient Review (CIR) Expert Panel. The CIR Expert Panel evaluated the scientific data and concluded that Glycolic acid is safe for use in cosmetics and personal care products at concentrations of 10% or less, at final formulation pH of 3.5 or greater, when formulated to avoid increasing sun sensitivity or when directions for use include the daily use of sun protection. These ingredients were found safe for use in salon products at concentrations of 30% or less, at final formulation pH of 3.0 or greater, in products designed for brief, discontinuous use followed by thorough rinsing from the skin, when applied by trained professionals, and when application is accompanied by directions for the daily use of sun protection.

Ref. 1. 13 **Salicylic acid**

Salicylic acid is an aromatic monohydroxybenzoic acid (2-hydroxybenzoic acid), a crystalline organic acid that can be derived from salicin (a β-glucoside in willow bark) with the formula $C_6H_4(OH)COOH$, where the OH group is ortho to the carboxyl group. Salicylic acid is prohibited in products for children under three years old, unless used in a shampoo.

In 2003 the safety of Salicylic acid was assessed by the Cosmetic Ingredient Review (CIR) Expert Panel. The CIR Expert Panel evaluated scientific data and concluded that Salicylic acid was safe as used when formulated to avoid skin irritation and when formulated to avoid increasing the skin's sun sensitivity, or, when increased sun sensitivity would be expected, directions for use include the daily use of sun protection.

A Scientific Committee on Consumer Safety (SCCS) 2018 Final Opinion on Salicylic acid supports the Cosmetic Europe's concentration limits in ready-for-use cosmetic preparations of 3% in rinse-off hair products and 2% in other products.

In June 2019 the CIR Expert Panel re-reviewed Salicylic acid and concluded it is safe in cosmetics in the present practices of use and concentration described in the safety assessment, when formulated to be non-irritating and non-sensitising, which may be based on a quantitative risk assessment (QRA).

Cosmetics Europe considers Salicylic acid a CMR substance and requires additional notification on electronic portals. CMR substances are substances that are carcinogenic, mutagenic or toxic to reproduction (CMR). They are of specific concern due to the long term and serious effects that they may exert on human health. Under GHS, CMR substances can be classified into 3 categories depending on the severity of hazards. Salicylic acid is classed as CMR 2. CMR Category 2 defines a substance which is a suspected carcinogen (H341), mutagen (H351) or reproductive toxicant (H361) based on limited evidence from animal and/or human studies.

Based on the data provided and available literature, the SCCS considers Salicylic acid safe when used for purposes other than preservative at a concentration up to 3.0 % for the cosmetic rinse-off hair products and up to 2.0 % for other products, considering its current restrictions in place. However, in body lotion, eye shadow, mascara, eyeliner, lipstick and roll on deodorant applications, salicylic acid is considered safe up to 0.5 %. The SCCS position is that these levels are inclusive of any use of salicylic acid, i.e. should not exceed the stated levels with additional use as a preservative.

The EU Scientific Committee on Consumer Safety (SCCS) concluded in June 2019 (pdf attached) that on the balance of evidence and giving the OECD guideline test study the most weight, salicylic acid is not genotoxic in bacterial assays. In an OECD guideline 476 study, salicylic acid did not induce mutations. Salicylic acid also did not lead to chromosome aberrations in an OECD guideline 473 equivalent study. The study by Giri et al 1996, is the key in vivo study for mutagenicity cited in the REACH dossier for salicylic acid. Salicylic acid neither induced sister chromatid exchanges (SCE) nor chromosomal aberrations (CA) in i.p. or oral studies in vivo in mice. This indicates that salicylic acid is not genotoxic in the bone marrow cells of mice. Applicants' conclusion: The overall conclusion from the weight of evidence in vitro and in vivo is that salicylic acid is not mutagenic/genotoxic. that under the experimental conditions reported the test item did not induce mutations in the mouse lymphoma thymidine kinase locus assay using the cell line L5178Y in the absence and presence of metabolic activation. Based on the results provided salicylic acid can be considered to pose no genotoxic hazard.

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

2. Physical & chemical properties and stability

2.1.1 Physical/chemical properties of ingredients (substances or mixtures)

See section 1. Quantitative and qualitative composition – additional specification of ingredients.

Ref. 1. 14 **Malic acid**

Malic acid is an organic compound with the molecular formula $C_4H_6O_5$. It is a dicarboxylic acid that is made by all living organisms, contributes to the pleasantly sour taste of fruits, and is used as a food additive. Malic acid has two stereoisomeric forms (L- and D-enantiomers), though only the L-isomer exists naturally.

Malic acid is included on the Food and Drug Administration's (FDA) list of direct food substances that are affirmed as Generally Recognized As Safe (GRAS). Malic acid is not considered GRAS for use in baby food.

Ref. 1. 15 **Tartaric acid**

Tartaric acid is a white crystalline diprotic acid, naturally occuring in plants, and one of the main acids found in wine. It is a dihydroxyl derivative of succinic acid. Molecular formula: $C_4H_6O_6$

Ref. 1. 16 **Pyrus malus fruit extract**

Pyrus malus fruit extract is an extract of the fruit of the Apple, Pyrus malus L., Rosaceae.

Ref. 1. 17 **Citrus limon fruit extract**

Citrus limon fruit extract is an extract of the fruit of the Lemon, Citrus limon (L.), Rutaceae .

Ref. 1. 18 **Vaccinium myrtillus fruit extract**

Vaccinium myrtillus fruit extract is an extract of the fruit of the Myrtle, Vaccinium myrtillus L., Ericaceae.

Ref. 1. 19 **Saccharum officinarum extract**

Saccharum officinarum extract is an extract of the sugar cane, Saccharum officinarum L., Poaceae.

Ref. 1. 20 **Vitis vinifera fruit extract**

Vitis vinifera fruit extract is an extract of the fruit of the Red grape, Vitis vinifera L., Vitaceae.

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

2. Physical & chemical properties and stability

2.1.1 Physical/chemical properties of ingredients (substances or mixtures)

See section 1. Quantitative and qualitative composition – additional specification of ingredients.

Ref. 1. 21 **Carbomer**

Carbomer is a synthetic, high molecular weight, nonlinear polymer of acrylic acid, cross-linked with a polyalkenyl polyether. The Carbomer polymers are used in cosmetics and emulsifying agents at concentrations up to 50%. Acute oral animal studies showed that Carbomers-910, -934, -934P, -940, and -941 have low toxicities when ingested. These polymers are hygroscopic and, when exposed to sunlight, they undergo oxidative degradation. Reported impurities for the Carbomer resins include water, benzene, propionic acid, acetic acid, acrylic acid, heavy metals, iron, arsenic, and lead. In 1982 the Cosmetic Ingredient Review Expert Panel called attention to the presence of benzene as an impurity in Carbomers and recommended that every effort be made to reduce it to the lowest possible value. In 1982 the CIR Expert Panel concluded that on the basis of the available information presented and as qualified in the report, the Carbomers are safe as cosmetic ingredients. In its re-review published in March 2003 the Panel acknowledged the industry practice of removing benzene from Carbomers resulting in levels which should be below those shown to have no risk to human health. In its re-review published in 2003 the Panel concluded that the Carbomers are safe as cosmetic ingredients in the present practices of use and concentration.

Ref. 1. 22 **Sodium hydroxide**

Sodium hydroxide is a metallic base and alkali salt with the molecular formula NaOH. It is produced by treating oxides with water, known as brine electrolysis. In June 2015 The Cosmetic Ingredient Review Expert Panel noted that in humans, sodium hydroxide was irritating at concentrations as low as 0.5%. The US Food and Drug Administration (FDA) includes Sodium hydroxide on its list of substances affirmed as Generally Recognised as Safe (GRAS) for direct addition to food. Sodium hydroxide is safe in the present practices of use and concentration as described in this safety assessment.

Ref. 1. 23 **Phenoxyethanol**

Phenoxyethanol is an aromatic glycol ether with an alcohol moiety and the molecular formula $C_8H_{10}O_2$. Phenoxyethanol is made by reacting phenol with ethylene oxide in the presence of a basic catalyst under pressure and with heating; the resulting product is neutralised, and purified to the point where 4 -8% of the Phenoxyethanol is converted to the diethoxylate, thereby reducing the free phenol content. In 1990 the Cosmetic Ingredient Review (CIR) Expert Panel concluded that Phenoxyethanol is safe for use as a cosmetic ingredient in the present practice of use and concentration detailed in this safety assessment. In 2011 The CIR Expert Panel reconfirmed that conclusion.

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

2. Physical & chemical properties and stability

2.1.1 Physical/chemical properties of ingredients (substances or mixtures)

See section 1. Quantitative and qualitative composition – additional specification of ingredients.

Ref. 1. 24 **Sorbic acid**

Sorbic acid is straight-chain monocarboxylic acid with the molecular formula $C_6H_8O_2$. Specifically, Sorbic acid is a hexadienoic acid with double bonds at C-2 and C-4; it has four geometrical isomers, of which the trans,trans-form is naturally occurring. It is a polyunsaturated fatty acid, a medium-chain fatty acid and an alpha,beta-unsaturated monocarboxylic acid, a conjugate acid of a sorbate. Sorbic acid occurs naturally as the lactone, parasorbic acid, in berries of the mountain ash, Sorbus aucuparia L., Rosaceae. It can be synthesised by various processes, which include condensation of crotonaldehyde and acetic or malonic acid in pyridine solution, condensation of crotonaldehyde and ketene in the presence of boron trifluoride, preparation from 1,1,3,5-tetraalkoxyhexane, and dealkanolation and hydrolysis of a 3,5-dialkoxyhexanal dialkyl acetal under oxidative conditions. The trans,transisomer is usually obtained and is the commercial product. Sorbic acid is also used as a food preservative and has the e number E200. The FDA has conferred Generally Recognised as Safe (GRAS) status to Sorbic acid. In 1988, the Cosmetic Ingredient Review (CIR) Expert Panel concluded that Sorbic acid is safe in the present practices of use and concentration described in this safety assessment. In 2008 The CIR Expert Panel reconfirmed the 1988 decision.

Ref. 1. 25 **Ethylhexylglycerin**

Ethylhexylglycerin is an alkyl glyceryl ether in which the ethylhexyl group is bound to glycerin at one end by an ether linkage as the condensation product of 2-ethylhexanol and glycerin. Its molecular formula is $C_{11}H_{24}O_3$

Ethylhexylglycerin's efficacy as a preservative enhancer is derived by reducing interfacial tension on the cellular walls of micro-organisms, promoting rapid destruction across a wider spectrum. In 2013 the Cosmetic Ingredient Review (CIR) Expert Panel concluded that Ethylhexylglycerin is safe for use as cosmetic ingredient in the present practice of use and concentration detailed in this safety assessment.

Ref. 1. 26 **Disodium EDTA**

Disodium EDTA (Ethylene Diamine Tetraacetic Acid) is a substituted diamine used as a chelating agent to sequester and decrease the reactivity of metal ions, and has the molecular formula $C_{10}H_{14}N_2Na_2O_8$. Disodium EDTA is manufactured by dissolving EDTA into a hot solution that contains two equivalents of sodium hydroxide. The solution is then crystallised.

The Food and Drug Administration (FDA) reviewed the safety of Disodium EDTA and approved the use of the ingredients as a food preservative for direct addition to food. The safety of Disodium EDTA was assessed by the Cosmetic Ingredient Review (CIR) Expert Panel in 2002. The CIR Expert Panel evaluated the scientific data and concluded that Disodium EDTA is safe as used in cosmetics and personal care products.

OXFORD BIOSCIENCES
Safety Assessment, Analysis, Research & Testing

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

PART A – Cosmetic Product Safety Information *continued*

2. Physical & chemical properties and stability *continued*

2.1.2 Physical/chemical properties of the cosmetic product

Appearance	Cream/Paste/Gel
Colour	Clear
Aroma	Fresh
pH	4.5

*RP: Responsible Person: BioSam

2.2 Stability of the cosmetic product

The ingredients used in the production of the cosmetic product comply with the relevant legal regulations.

Both the product and constituent ingredients are stable under normal use and warehousing conditions during the entire time of the PAO 12M period.

2.2.1 BioSam confirms that all product stability tests reflect the stability of the product which is to be placed on the market.

2.2.2 BioSam uses a PAO 12M based on the results of BioSam 's stability testing, including shelf life stability testing.

2.2.3 This product was subjected to Preservative Efficacy Testing and proved that it did not support microbial growth. PET reference: PET OxBio 4502

3. Microbiological quality

3.1.1 Microbiological specification of ingredients (substances and mixtures).

Based on available information from the ingredient specification (see section 1. Quantitative and qualitative composition – specification of ingredients), the ingredients used can be assessed as microbiologically safe.

3.1.2 Microbiological specification of the finished product

The given cosmetic product can be regarded as microbiologically safe for consumers' health

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

under the ISO 29621:2010 standard “Cosmetics -- Microbiology -- Guidelines for the risk assessment and identification of microbiologically low-risk products”.

The microbiological harmlessness of the ingredients and the cosmetic product is assessed according to COLIPA: Guideline for Microbiological Quality Management (MQM).

This product was subjected to Preservative Efficacy Testing and proved that it did not support microbial growth. PET reference: PET OxBio 4502

4. Impurities, trace amounts of forbidden substances, & information about packaging material

4.1 Impurities and trace amounts of forbidden substances

According to specifications (see section 2.1.1 Physical/chemical properties of ingredients (substances or mixtures) submitted by ingredient suppliers, the ingredients do not contain impurities or trace amounts of forbidden substances.

Any impurities or traces identified in any ingredient above standard tolerances are noted against each respective ingredient in section 2.1.1.

4.2 Information about packaging material

The packaging material applied is suitable for the given type of cosmetic product and meets the predictable use requirements.

Container	Bottle
Container Material	PP
Airless Container	Yes

Polypropylene is resilient and resistant to most solvents and represents a low hazard in terms of chemical leaching. Since polypropylene is liable to chain degradation from exposure to heat and sunlight (a source of UV radiation) unless antioxidants have been added to the polymer to prevent polymer degradation, normal label warnings to store the product in cool and dark conditions apply.

BioSam confirms that the results of reference sample monitoring show no reaction between the packaging material and the product during the product’s stated minimum useable life. During that life no changes to physical and chemical properties of the product were noticed that would affect its usability and safety.

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

5. Normal and reasonably foreseeable use

The current label advice:

The label of this cosmetic product should include this special note regarding its use, in compliance with Article 19(1)(d) of *Cosmetic Regulation* (EC) No. 1223/2009:

For external use only. Keep out of reach of children. Not to be used on children under 3yrs.

6. Exposure to the cosmetic product

Area of application	Face
Product type: Leave-on or Rinse-off	Leave On
Duration and frequency	2.14
Possible additional routes of exposure	Body
Estimated skin surface area (cm^2)	565
Estimated amount of the product applied according to the SCCS (g/day)	1.54 g
Estimated retention factor according to the SCCS	1
Target group	Adult
Calculated relative daily exposure according to the SCCS (mg/kg bw/day)	24.14

OXFORD BIOSCIENCES
Safety Assessment, Analysis, Research & Testing

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

7. Exposure to the ingredients

	Ingredient INCI name	Concentration	SED
1	Chamomilla recutita flower water	0.69000	16.65660
2	Glycerin	0.10600	2.55884
3	Melaleuca alternifolia leaf oil	0.01000	0.24140
4	Benzyl alcohol	0.00900	0.21726
5	Salicylic acid	0.00200	0.04828
6	Sorbic acid	0.00050	0.01207
7	Aqua	0.09499	2.29306
8	Aloe barbadensis leaf juice	0.00500	0.12070
9	Phenoxyethanol	0.00088	0.02124
10	Ethylhexylglycerin	0.00012	0.00290
11	Carbomer	0.00100	0.02414
12	Sodium hydroxide	0.00100	0.02414
13	Disodium EDTA	0.00010	0.00241
14	Citric acid	0.00670	0.16174
15	Ascorbic acid	0.02000	0.48280
16	Pyrus malus fruit extract	0.00196	0.04731
17	Citrus limon fruit extract	0.00196	0.04731
18	Vaccinium myrtillus fruit extract	0.00196	0.04731
19	Saccharum officinarum extract	0.00196	0.04731
20	Vitis vinifera fruit extract	0.00196	0.04731
21	Propylene glycol	0.01001	0.24164
22	Lactic acid	0.00660	0.15932
23	Glycolic acid	0.00484	0.11684
24	Malic acid	0.00198	0.04780
25	Tartaric acid	0.00198	0.04780
26	Xanthan gum	0.02000	0.48280

***SED**: Systemic Exposure Dose*

OXFORD BIOSCIENCES
Safety Assessment, Analysis, Research & Testing

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

8. Toxicological profile of the ingredients in the formulation

	Ingredient INCI name	MOS
1	Chamomilla recutita flower water	1500.90650
2	Glycerin	4924.10620
3	Melaleuca alternifolia leaf oil	7870.75390
4	Benzyl alcohol	5661.41950
5	Salicylic acid	53852.52690
6	Sorbic acid	609776.30490
7	Aqua	43609.87550
8	Aloe barbadensis leaf juice	132560.06630
9	Phenoxyethanol	59313.09780
10	Ethylhexylglycerin	690417.01190
11	Carbomer	82850.04140
12	Sodium hydroxide	4142.50210
13	Disodium EDTA	1685998.34300
14	Citric acid	18548.51670
15	Ascorbic acid	24647.88730
16	Pyrus malus fruit extract	105676.07320
17	Citrus limon fruit extract	105676.07320
18	Vaccinium myrtillus fruit extract	105676.07320
19	Saccharum officinarum extract	422704.29300
20	Vitis vinifera fruit extract	211352.14650
21	Propylene glycol	82767.27420
22	Lactic acid	22237.70430
23	Glycolic acid	16689.83270
24	Malic acid	33474.76420
25	Tartaric acid	47283.10440
26	Xanthan gum	93206.29660

***MOS**: Margin of Safety*

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

8. Toxicological profile of the ingredients in the formulation - continued

Based on the calculation of MoS (Margin of Safety) for ingredients that can be classified as hazardous to human health, the product does not contain ingredients with toxicologically significant profiles in terms of consumer health.

An ingredient with an MoS above 1000 is considered safe. An ingredient with an MoS above 100 but lower than 1000 must be further considered by the assessor.

Since all of the ingredients have a margin of safety above 1,000 this product is considered safe for consumers to use.

9. Undesirable effects and serious undesirable effects

The cosmetic product with a similar composition has been supplied to the market in the long term and until nowadays, no undesired effects to human health have been noticed in relation to the use of this product. Therefore, no undesired effects are anticipated at the common and reasonably predictable application of the given cosmetic product.

After its launch, the cosmetic product will be further monitored by BioSam in accordance to procedures detailed in *Cosmetic Regulation* (EC) No 1223/2009. The safety of the product should be reviewed on a regular basis. To that end, undesirable and serious undesirable effects on human health during in market use of the product should be filed (complaints during normal and improper use, and the follow-up done) and details forwarded to the safety assessor.

The safety assessor will then update the Cosmetic Product Safety Report (CPSR) based on the new findings and the adopted corrective measures.

10. Additional information on the product

No additional information is available and no additional studies were carried out.

OXFORD BIOSCIENCES
Safety Assessment, Analysis, Research & Testing

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

11. References

- THE SCCS'S NOTES OF GUIDANCE FOR THE TESTING OF COSMETIC SUBSTANCES AND THEIR SAFETY EVALUATION 8TH REVISION
  http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:342:0059:0209:en:PDF
- MSDS of ingredients
- Commission Implementing Decision of 25th November 2013 Guidelines on Annex I to Regulation (EC) No 1223/2009 of the European Parliament and of the Council on cosmetic products
- SCCS - Opinions
  http://ec.europa.eu/health/scientific_committees/consumer_safety/opinions/index_en.htm
- CosIng: the European Commission database on cosmetic substances
  http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.simple
- REGULATION 1223/2009 ANNEXES
  http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=ref_data.annexes_v2

OXFORD BIOSCIENCES
Safety Assessment, Analysis, Research & Testing

Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

PART B – Cosmetic Product Safety Assessment

1. Assessment conclusion

Based on the information supplied, the cosmetic product detailed in this report is safe for human health when used in common or reasonably predictable conditions in compliance with the instructions provided for the consumer.

This conclusion is only applicable to this cosmetic product with the composition, properties, purpose, and method of use of which are detailed in this documentation, and laboratory tests attached to this assessment, including the detailed production and labelling which has been assessed as meeting the requirements of *Cosmetic Regulation* (EC) No. 1223/2009 effective on the date this report was issued.

2. Labelled warnings and instructions of use

The label of this cosmetic product should include this special note regarding its use, in compliance with Article 19(1)(d) of *Cosmetic Regulation* (EC) No. 1223/2009:

For external use only. Keep out of reach of children. Not to be used on children under 3yrs.

Allergens present in this product and estimated amounts*:

Limonene: 0.04%

* The presence of these allergens must be indicated in the list of ingredients when their concentration exceeds: 0.001% in leave-on products or 0.01% in rinse-off products. Only the allergen, not the estimated amount, is required on the label.

3. Reasoning

Based on the formulation of this cosmetic product, its qualitative and quantitative composition according to its INCI ingredients, basic physical and chemical characteristics and microbiology, Preservation Challenge Test performed, classification of the cosmetic product type, including its purpose and method of application, and available toxicological information and safety sheets of the ingredients used, the cosmetic product safety has been assessed for the consumer by assessing the toxicological profile of all ingredients, their chemical structure, exposure level and Margin of Safety (MoS) depending on the purpose of use in this cosmetic product.

This cosmetic product contains only the allowed ingredients in allowed concentrations. For ingredients with safety limits as specified in Annexes to *Cosmetic Regulation* (EC) No. 1223/2009, no ingredient exceeds the allowable safety limit therefore is a safe concentration in this cosmetic product. The evaluation of the entire composition and applied ingredient concentrations indicate that as a whole the composition of this cosmetic product complies with the requirements of *Cosmetic Regulation* (EC) No. 1223/2009 of the European Parliament and of the Council.

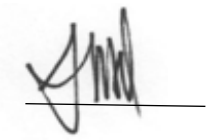
Oxford Biosciences Ltd.
Magdalen Centre,
The Oxford Science Park,
Oxford OX4 4GA
+44 (1865) 419110

4. Assessor's credentials and approval of Part B

Safety Assessor: Allison Wild
Oxford Biosciences Ltd.
The Oxford Science Park
Magdalen Centre
Oxfordshire
OX4 4GA

Experience and qualifications:

- MSc in Clinical Pharmacology, University of Oxford
- 15+ years experience formulating cosmetic products
- Full member of the Society of Cosmetic Scientists (SCS)
- Member of the British Pharmacological Society



Signature

6 March 2023

Date