## Consumer Product Testing

## Laboratory Test Report

Report Number: 2022-753-5050

| Prepared for: | Eresos Health + Wellbeing LTD |
| :--- | :--- |
| Address: | 14 A Commercial Road |
|  | London |
|  | N18 1TP |
| Customer Sample Description: | Cocoa Hand \& Body Butter 2000 mg |
| Eurofins Registration Number: | $2022-753-5050$ |
| No. of samples: | 1 |
| Assessment Performed: | Cosmetic Product Safety Report - EU/UK |
| Date Received: | $16 / 11 / 2022$ |
| Date issued: | $23 / 01 / 2023$ |

# Results and Observations <br> Please refer to the following pages) 



> Georgia Lees-Lowe
> Technical Account Executive

Date: 06/02/2023

The assessment was performed by an approved partner of the Eurofins Group.
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Consumer Product Testing

Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## Cosmetic Product Safety Report

## PRODUCT IDENTIFICATION

| Product Category: | Cosmetic |
| :--- | :--- |
| Requirements: | Regulation (EC) 1223/2009 and UK |
| Reference Number: | $2022-753-5050$ |
| Client Name: | Eurofins Consumer Product Testing Services |
| Contact Name: | Georgia Lees-Lowe |

## PRODUCT CHARACTERISTICS

| Product Group: | Body butter |
| :--- | :--- |
| Type Of Product: | Leave On |
| Physical State: | Cream |
| Nominal Size: | 146 g |
| Type Of Package: | PET jar with PP lid |

## PHYSICALCHEMICAL CHARACTERISTICS

| Appearence: | Light yellow opaque cream | Specific Gravity [20 $\mathbf{c}]:$ | Not Available |
| :--- | :--- | :--- | :--- |
| Odour: | Characteristic | Particles Size: | Not Applicable |
| pH: | $4-6$ | Density: | Not Available |
| Viscosity[cp]: | Not Available | Flash Point: | Not Applicable |
| Solubility: | Partly soluble in water | Loss On Drying: | Not Applicable |
| Proportion Of Non-propellant <br> In The Spray | Not Applicable | Fraction Reaching Alveoli: | Not Applicable |

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THIS ASSESSMENT IS SOLELY BASED ON THE LIST OF INGREDIENTS AND PRODUCT SAFETY INFORMATION SUBMITTED FOR TOXICOLOGICAL RISK ASSESSMENT AND ASSUMES THAT THIS LIST IS ACCURATE AND THERE ARE NO ADDITIONAL INGREDIENTS OR DATA WHICH ARE NOT LISTED. IF THE INFORMATION IN THE REPORT IS INCORRECT, PLEASE CONTACT SAFETY ASSESSOR. THE CORRECT DATA MUST BE SENT WITHIN 30 DAYS FROM THE DATE OF RECEIVED DOCUMENT OTHERWISE UPDATES WILL BE CHARGEABLE.
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| Job No | NCH1140 |
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| Report No | $\mathbf{0 0 8 2 3 3}$ |
| Issue Date | $\mathbf{2 3 / 0 1 / 2 0 2 3}$ |
| Version No | $\mathbf{1}$ |

Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## Manufacturer

Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

QUANTITATIVE AND QUALITATIVE (QQ) COMPOSITION OF THE COSMETIC PRODUCT

## BILL OF MATERIALS (BOM)

| INCI / CHEMICAL NAME | CAS NUMBER | \% BY WEIGHT | RESTRICTIONS <br> AS PER Regulation (EC) 1223/2009 and UK |
| :---: | :---: | :---: | :---: |
| Aqua | 7732-18-5 | 54.06843 | None |
| Cocos Nucifera Oil | 8001-31-8 | 27.31347 | None |
| Caprylic/Capric Triglyceride | $\begin{aligned} & 73398-61-5(65381 \\ & -09-1) \end{aligned}$ | 4.77388 | None |
| Butyrospermum Parkii Butter | $\begin{aligned} & 194043-92-0(91080 \\ & -23-8) \end{aligned}$ | 3.58041 | None |
| Glycerin | 56-81-5 | 2.90901 | None |
| Glyceryl Stearate | $\begin{aligned} & 31566-31-1(123-94 \\ & -4) \end{aligned}$ | 2.69828 | None |
| PEG-100 Stearate | 9004-99-3 | 2.69828 | None |
| Glyceryl Stearate SE | 11099-07-3 | 2.69828 | None |
| Helianthus Annuus (Sunflower) Seed Oil | 8001-21-6 | 2.38694 | None |
| Cetyl Alcohol | 36653-82-4 | 1.5567 | None |
| Cannabidiol (CBD) | 13956-29-1 | 1.370 | Permitted if derived from parts of the Cannabis like leaves and stems. Prohibited if contains narcotics, natural and synthetic (e.g. delta-9tetrahydrocannabinol)). Prohibited if derived from hemp flower (France). |
| Stearic Acid | 57-11-4 | 1.19347 | None |
| Theobroma Cacao (Cocoa) Seed Butter | $\begin{aligned} & 84649-99-0(8002-31 \\ & -1) \end{aligned}$ | 1.19347 | None |
| Ceteareth-20 | 68439-49-6 | 0.77835 | None |
| Phenoxyethanol | 122-99-6 | 0.7251 | 1\% |
| Ethylhexylglycerin | 70445-33-9 | 0.7251 | None |
| Polysorbate 20 | 9005-64-5 | 0.622 | None |
| Isopropyl Myristate | 110-27-0 | 0.5189 | None |
| Carbomer | $\begin{aligned} & 9007-20-9(9003-01 \\ & -4) 76050-42-5(9062 \\ & -04-8) 9007-16-3 \\ & (9007-17-4) \end{aligned}$ | 0.44503 | None |

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| Version No | $\mathbf{1}$ |

Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

QUANTITATIVE AND QUALITATIVE (QQ) COMPOSITION OF THE COSMETIC PRODUCT BILL OF MATERIALS (BOM)

| INCI / CHEMICAL NAME | CAS NUMBER | \% BY WEIGHT | RESTRICTIONS <br> AS PER Regulation (EC) 1223/2009 and UK |
| :---: | :---: | :---: | :---: |
| Squalane | 111-01-3 | 0.36323 | None |
| Camellia Kissi Seed Oil | 94333-92-3 | 0.36323 | None |
| Sodium Hydroxide | 1310-73-2 | 0.36255 | a) Nail cuticle solvent $5 \%$ b) Hair straightener general use 2\% Professional use 4,5\% c) pH adjuster for depilatories $\mathrm{pH}<12,7$ d) Other uses as pH adjuster $\mathrm{pH}<11$ a)Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children b) 1) Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children 2)For professional use only Avoid contact with eyes Can cause blindness c)Keep out of reach of children Avoid contact with eyes |
| Tocopheryl Acetate | 7695-91-2(58-95-7) | 0.15567 | None |
| Aloe Barbadensis Leaf Juice Powder | $\begin{aligned} & \text { 85507-69-3(94349 } \\ & -62-9) \end{aligned}$ | 0.1031 | None |

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Consumer Product Testing

Job No NCH1140<br>Report No<br>008233<br>Issue Date<br>23/01/2023<br>Version No 1

Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## STABILITY OF THE COSMETIC PRODUCT

## PRODUCT STABILITY:

The product underwent a 6-months accelerated and 24-months real-time stability testing and was monitored for changes in appearance, colour, CBD content, cannabinoid profile and preservative content at the temperature conditions of $40^{\circ} \mathrm{C} / 75 \%$ R.H. and $25^{\circ} \mathrm{C} / 60 \%$ R.H. respectively. The test report showed slight changes to the product colour, appearance and cannabidiol content during both tests and changes of preservative content at accelerated conditions. The product passed the manufacturer 's specification.

## PACKAGING SPECIFICATION:

Specifications of the substances in the package are available in the product documentation at the address of the person responsible for placing the product on the market. The packaging characteristics show no potential problems with regards to product safety during use and storage.

## GENERAL RECOMMENDATION:

Relevant stability and packaging compatibility tests adapted to the type of cosmetic product and its intended use should be carried out. This is to ensure that no stability problems are induced by the type of container and packaging used. Physical stability tests are usually carried out either with inert containers or those intended to be used on the market (*).

* Ref. The SCCS's Notes of Guidance for the Testing of Cosmetic Substances and their Safety Evaluation


## PRODUCT DURABILITY:

Shelf life: 24 months from manufacturing

Product Name
Manufacturer
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## MICROBIOLOGICAL QUALITY

MESOPHILIC AEROBIC BACTERIA COUNT: < 100 cfu/g

## YEAST AND MOULDS: < $100 \mathrm{cfu} / \mathrm{g}$

PATHOGENS: Listeria species: not detected in 25 g ; Salmonella: not detected in 10 g

## CHALLENGE TEST:

The samples of the body butter base were inoculated with cultures of bacteria such as Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus, Candida albicans and Aspergillus brasiliensis. After 7, 14 and 28 days, the tested samples were 'free from microbial load'. These results indicate that the preservative system is functional and that the growth of microorganisms is not likely to occur.

Challenge test result for the final product was not provided by the time of assessing the product. The efficacy of the preservative system and microbiological stability (TVC, mould, fungi, absence of pathogens) must meet the acceptance criteria based on the positive evaluation prior to marketing.

## MICROBIOLOGICAL LIMITS FOR COSMETICS. EUROPEAN STANDARD EN ISO 17516:2014 COSMETICS MICROBIOLOGY - MICROBIOLOGICAL LIMITS:

Products specifically intended for children under three years of age, the eye area or the mucous membranes:
Total Aerobic Mesophilic Microorganisms (Bacteria plus yeast and mould) $\leq 1 \times 10^{\wedge} 2$ CFU per g or mi^a.
Pathogens (Escherichia coli, Pseudomonas aeruginosa, Staphyloccocus aureus, Candida albicans) must be absent in 1 g or 1 ml.

Other products:
Total Aerobic Mesophilic Microorganisms (Bacteria plus yeast and mould) $\leq 1 \times 10^{\wedge} 3$ CFU per g or mi^b Pathogens (Escherichia coli, Pseudomonas aeruginosa, Staphyloccocus aureus, Candida albicans) must be absent in 1 g or 1 ml .

Additionally: Due to inherent variability of the plate count method, according to USP Chapter 61 or EP Chapter 2.6.12, Interpretation of results, results considered out of limit if $a>200 \mathrm{CFU} / \mathrm{g}$ or $\mathrm{ml}, \mathrm{b}>2000 \mathrm{CFU} / \mathrm{g}$ or ml . NOTE When colonies of bacteria are detected on Sabouraud Dextrose agar, Sabouraud Dextrose agar containing antibiotics may be used (ref. SCCS/1564/15, Table 5)

| Chnolichem <br> : | Consumer Product Testing | Job No | NCH1140 |
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|  |  | Issue Date | 23/01/2023 |
|  |  | Version No | 1 |
| Product Name |  | Manufacturer |  |
| Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition |  | Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP |  |

Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## IMPURITIES, TRACES, INFORMATION ABOUT THE PACKAGING MATERIAL

A complete set of technical specifications of the product, raw materials and the packaging were not provided at the time of the assessment. Impurities in the form of controlled or prohibited chemical or biological materials should be solely present (if any) at levels within recommended standards. Prohibited ingredients are permissible only at trace levels as defined by best industrial practices. The content of heavy metals as impurities shall occur in quantities within the safety levels recommended by The Federal Institute for Risk Assessment (BfR ) for cosmetic products.

NORMAL AND REASONABLY FORESEEABLE USE
Body and hands butter intended for use by adults.

EXPOSURE TO THE Cosmetic PRODUCT
The site(s) of application: Body
The surface area(s) of application: $\quad 17500 \mathrm{~cm}^{2}$
The amount of product applied: $\quad 18.67 \mathrm{~g}$
Exposure time: Leave On
The duration and frequency of use:
The normal and reasonably Skin
foreseeable exposure route(s):
The targeted (or exposed) population(s): $16+$

The SCCS's Notes of Guidance for the Testing of Cosmetic Substances and their Safety Evaluation
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Manufacturer
Eresos Health + Wellbeing LTD
14 A Commercial Road London
N18 1TP

## EXPOSURE TO THE SUBSTANCES (DERMAL)

SED Product $=311.166667 \mathrm{mg} / \mathrm{kg}$ bw / day

| INCI / Chemical Name | Concentration in finished product [C \%] | * Daily exposure of product (a g/day) | *Dermal Absorption (Dap \%) | **Systemic Exposure Dose (SED mg/kg bw/ day) | NOAELs (mg/kg bw/day) | MoS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aqua | 54.068430 | 18.67 | 100.000 | 168.24293135 | Not available | No MoS calculated as no NOAEL available |
| Cocos Nucifera Oil | 27.313470 | 18.67 | 100.000 | 84.99041415 | Not available | No MoS calculated as no NOAEL available |
| Caprylic/Capric Triglyceride | 4.773880 | 18.67 | 100.000 | 14.85472327 | 1875 | 126.222479 |
| Butyrospermum Parkii Butter | 3.580410 | 18.67 | 100.000 | 11.14104245 | Not available | No MoS calculated as no NOAEL available |
| Glycerin | 2.909010 | 18.67 | 100.000 | 9.05186945 | 5040 | 556.791062 |
| PEG-100 Stearate | 2.698280 | 18.67 | 100.000 | 8.39614793 | Not available | No MoS calculated as no NOAEL available |
| Glyceryl Stearate SE | 2.698280 | 18.67 | 100.000 | 8.39614793 | Not available | No MoS calculated as no NOAEL available |
| Glyceryl Stearate | 2.698280 | 18.67 | 100.000 | 8.39614793 | 2000 | 238.204474 |
| Helianthus Annuus (Sunflower) <br> Seed Oil | 2.386940 | 18.67 | 100.000 | 7.42736163 | Not available | No MoS calculated as no NOAEL available |
| Cetyl Alcohol | 1.556700 | 18.67 | 100.000 | 4.84393150 | 1000 | 206.443877 |
| Cannabidiol (CBD) | 1.370000 | 18.67 | 100.000 | 4.26298333 | Not available | No MoS calculated as no NOAEL available |
| Theobroma Cacao (Cocoa) Seed Butter | 1.193470 | 18.67 | 100.000 | 3.71368082 | Not available | No MoS calculated as no NOAEL available |
| Stearic Acid | 1.193470 | 18.67 | 100.000 | 3.71368082 | Not available | No MoS calculated as no NOAEL available |
| Ceteareth-20 | 0.778350 | 18.67 | 100.000 | 2.42196575 | Not available | No MoS calculated as no NOAEL available |
| Phenoxyethanol | 0.725100 | 18.67 | 90.000 | 2.03064255 | 500 | 246.227481 |

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Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

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## EXPOSURE TO THE SUBSTANCES (DERMAL)

SED Product $=311.166667 \mathrm{mg} / \mathrm{kg}$ bw / day

| INCI / Chemical Name | Concentration in finished product [C \%] | * Daily exposure of product (a g/day) | *Dermal Absorption (Dap \%) | **Systemic Exposure Dose (SED mg/kg bw/ day) | NOAELs (mg/kg bw/day) | MoS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ethylhexylglycerin | 0.725100 | 18.67 | 10.500 | 0.23691148 | Not available | No MoS calculated as no NOAEL available |
| Polysorbate 20 | 0.622000 | 18.67 | 100.000 | 1.93545667 | Not available | No MoS calculated as no NOAEL available |
| Isopropyl Myristate | 0.518900 | 18.67 | 100.000 | 1.61464383 | Not available | No MoS calculated as no NOAEL available |
| Carbomer | 0.445030 | 18.67 | 100.000 | 1.38478502 | Not available | No MoS calculated as no NOAEL available |
| Squalane | 0.363230 | 18.67 | 100.000 | 1.13025068 | Not available | No MoS calculated as no NOAEL available |
| Camellia Kissi Seed Oil | 0.363230 | 18.67 | 100.000 | 1.13025068 | Not available | No MoS calculated as no NOAEL available |
| Sodium Hydroxide | 0.362550 | 18.67 | 100.000 | 1.12813475 | Not available | No MoS calculated as no NOAEL available |
| Tocopheryl Acetate | 0.155670 | 18.67 | 100.000 | 0.48439315 | Not available | No MoS calculated as no NOAEL available |
| Aloe Barbadensis Leaf Juice Powder | 0.103100 | 18.67 | 100.000 | 0.32081283 | Not available | No MoS calculated as no NOAEL available |

*Daily exposure of product (A) estimated daily exposure as referenced by SCCS Notes of Guidance
** Dermal absorption (DAp): a worst case scenario 100\%
** Systemic Exposure Dose (SED) $=(\mathrm{A} \mathrm{mg} / \mathrm{g} \times \mathrm{C} / 100) / 60 \mathrm{mg} / \mathrm{kg} / \mathrm{day}$
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Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## EXPOSURE TO THE SUBSTANCES (ORAL)

SED Product $=311.166667 \mathrm{mg} / \mathrm{kg}$ bw / day

| INCI / Chemical Name | Concentration in finished product [C \%] | * Daily exposure of product (a g/day) | **Systemic Exposure Dose (SED mg/kg bw/ day) | NOAELs (mg/kg bw/day) | MoS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Aqua | 54.068430 | 18.67 | 168.24293135 | Not Available | No MoS calculated as no NOAEL available |
| Cocos Nucifera Oil | 27.313470 | 18.67 | 84.99041415 | Not Available | No MoS calculated as no NOAEL available |
| Caprylic/Capric Triglyceride | 4.773880 | 18.67 | 14.85472327 | 5000 | 168.296639 |
| Butyrospermum Parkii Butter | 3.580410 | 18.67 | 11.14104245 | Not Available | No MoS calculated as no NOAEL available |
| Glycerin | 2.909010 | 18.67 | 9.05186945 | 8000 | 441.897668 |
| PEG-100 Stearate | 2.698280 | 18.67 | 8.39614793 | Not Available | No MoS calculated as no NOAEL available |
| Glyceryl Stearate SE | 2.698280 | 18.67 | 8.39614793 | 2500 | 148.877796 |
| Glyceryl Stearate | 2.698280 | 18.67 | 8.39614793 | 1000 | 59.551118 |
| Helianthus Annuus (Sunflower) <br> Seed Oil | 2.386940 | 18.67 | 7.42736163 | Not Available | No MoS calculated as no NOAEL available |
| Cetyl Alcohol | 1.556700 | 18.67 | 4.84393150 | 4257 | 439.415793 |
| Cannabidiol (CBD) | 1.370000 | 18.67 | 4.26298333 | Not Available | No MoS calculated as no NOAEL available |
| Theobroma Cacao (Cocoa) Seed Butter | 1.193470 | 18.67 | 3.71368082 | Not Available | No MoS calculated as no NOAEL available |
| Stearic Acid | 1.193470 | 18.67 | 3.71368082 | 1000 | 134.637311 |
| Ceteareth-20 | 0.778350 | 18.67 | 2.42196575 | 500 | 103.221939 |
| Phenoxyethanol | 0.725100 | 18.67 | 2.25626950 | 369 | 81.772146 |
| Ethylhexylglycerin | 0.725100 | 18.67 | 2.25626950 | 50 | 11.080237 |
| Polysorbate 20 | 0.622000 | 18.67 | 1.93545667 | 5000 | 1291.684822 |
| Isopropyl Myristate | 0.518900 | 18.67 | 1.61464383 | 5500 | 1703.161987 |
| Carbomer | 0.445030 | 18.67 | 1.38478502 | 40 | 14.442675 |
| Squalane | 0.363230 | 18.67 | 1.13025068 | 10000 | 4423.79737 |
| Camellia Kissi Seed Oil | 0.363230 | 18.67 | 1.13025068 | Not Available | No MoS calculated as no NOAEL available |
| Sodium Hydroxide | 0.362550 | 18.67 | 1.12813475 | 1000 | 443.209466 |
| Tocopheryl Acetate | 0.155670 | 18.67 | 0.48439315 | 800 | 825.775509 |
| Aloe Barbadensis Leaf Juice Powder | 0.103100 | 18.67 | 0.32081283 | Not Available | No MoS calculated as no NOAEL available |

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| Version No | $\mathbf{1}$ |

Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## EXPOSURE TO THE SUBSTANCES (ORAL)

SED Product $=311.166667 \mathrm{mg} / \mathrm{kg}$ bw / day

| INCI / Chemical Name | Concentration in <br> finished product <br> $[\mathrm{C} \%]$ | Daily exposure <br> of product <br> (a g/day) | Systemic <br> Exposure Dose <br> (SED mg/kg bw/ <br> day) | NOAELs (mg/kg <br> bw/day) | MoS |
| :--- | :---: | :---: | :---: | :---: | :---: |

*Daily exposure of product (A) estimated daily exposure as referenced by SCCS Notes of Guidance
** Dermal absorption (DAp): a worst case scenario 100\%
*** Systemic Exposure Dose (SED) =A mg/g x C/100 x DAp/100/60 mg/kg/day

Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Aqua (Antiplaque, skin conditioning, solvent)
EU INCI: Aqua
CTFA INCI: Water
CNDA INCI: Eau.
Chinese: 水.
AS Number: 7732-18-5
EINECS Number: 231-791-2
ymbol: H2O.
解
escription: Aqua is a clear, colorless, odorless, tasteless liquid that freezes into ice below 0 degrees centigrade and boils above 100 degrees centigrade.
ynonyms: Distilled water; Deionized Water,Purified Water


Odour: Odourless
H: 6-8.0 at 25
iscosity: 0.8949 cP
Vater Solubility: Miscible
Partial Coefficient logPow: -1.38
Boiling Point: $100^{\circ} \mathrm{C}$ at 760 mm Hg
Density: $1.000 \mathrm{~g} / \mathrm{cm}$
Flammability: Not flammable
Microbiological stab
Physical State: Liquid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII (Mentioned as exemption from the obligation to register)
REACH SVHC: Not included in SVHC list (Annex XIV).
GHS Classification: Not classified as per GHS
Region : UK Type: Cosmetic Restriction: None

## TOXICITY REVIEW

General Toxicity Review: Water is non-toxic liquid essential for life. It is composed of hydrogen and oxygen. Water is commonly used as solvent in cosmetic products. The ingredient characteristic uggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used as intended.

## TOXICOLOGICAL PROFILE

Endocrine Effects: Does not have Endocrine disruptors (ED) properties
Eye Irritation: Not irritating to the eyes
Genotoxicity: Water is not-genotoxic
Hypoallergenic: Unilikely to
NOAEL Oral: The NOAELs were not available in order to review however based on a history of safe use in consumer products this material is considered safe when used as intended. In
conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
Phototoxicity: Not a phototoxic chemical.
Repeated Dose Toxicity: No studies recorded
Reproductive Toxicology: No studies recorded.
Skin Irritation: Not irritating to skin.
Skin Sensitisation: Water is an inorganic solvent which is very rare associated with allergenic reactions
Carcinogenicity: Not a carcinogenic chemical material
OTHER
Detergent Class: Dilutant
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Cocos Nucifera Oil (Hair Conditioning,Masking,Perfuming,Skin Conditioning)
EU INCI: Cocos Nucifera Oil
CTFA INCI: Cocos Nucifera (Coconut) Oil.
CNDA INCI: Cocos Nucifera (Coconut) Oil.
CAS Number: 8001-31-8.
EINECS Number: 232-282-8
Description: Cocos Nucifera Oil is the fixed oil obtained by expression of the kernels of the seeds of the Coconut, Cocos nucifera L., Palmaceae
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Odorless or slight odor characteristic of Coconut.
Odour: Odorless or slight odor char
Oxidising Properties: Not oxidizing
Specific Gravity: 0.9-0.9115 (Water = 1)
Water Solubility: Insoluble in water
Boiling Point: $>450^{\circ} \mathrm{C}\left(842^{\circ} \mathrm{F}\right)$
Colour: White to yellowish
Density: 0.903 at $0-4^{\circ} \mathrm{C}$
Flash Point: Closed cup : $216^{\circ} \mathrm{C}\left(420.8^{\circ} \mathrm{F}\right)$.
Melting Point: $21-25^{\circ}$
Physical State: Solid
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV).
Regulatory Controls: Not classified as hazardous to human health.
GHS Classification: Not classified as per GHS.
Region : Europe Type: Cosmetic Restriction : None
Region: UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: Cocos Nucifera Oil is the fixed oil obtained by expression of the kernels of the seeds of the Coconut, Cocos nucifera L., Palmaceae. The substance is not associated with General Toxicity Review: Cocos Nucifera Oil is the fixed oil obtained by expression of the kernels of the seeds of the Coconut, Cocos nucifera L., Palmaceae. The substance is not associated with toxicity with LD50 equal $5 \mathrm{~g} / \mathrm{kg}$ in oral route of exposure. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested for ocular irritation in rabbits. Only minimal eye irritation was observed in some of the animals. (CIR)
Inhalation: Inhalation of mist or vapor may cause respiratory tract irritation.
LD50: LD50 (oral, rat) $5 \mathrm{~g} / \mathrm{kg}$; No deaths were observed in 10 rats after single dose of coconut oil. The substance is considered as non-toxic. (CIR)
NOAEL Oral: The NOAEL value was not found, however, based on a history of safe use, this chemical material is considered safe for use in cosmetics. The chemical is unlikely to produce systemic toxicity following skin contact. In conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
Phototoxicity: Bar soap with $13 \%$ Cocos Nucifera (Coconut) Oil was tested as a $3 \%$ aqueous solution using 10 subjects. Similar soap prepared as 1 or $3 \%$ aqueous solutions was tested on 52
panelistition: No skin irritation was bserved as 24 h (Cing)
Skin Sensitisation: Magnusson-Kligman Maximization test on guinea pigs was conducted in order to determine sensitising potential of the coconut oil. The substance was scored as non-sensitising. (CIR)
Allergens HRIPT: ,A HRIPT was performed using 103 participants with a tanning butter containing $2.5 \%$ Cocos nucifera (coconut) oil; no erythematous reactions were seen at challenge; A bar soap containing $13 \%$ Cocos nucifera (coconut) oil produced very mild irritation when tested as a $1 \%$ aqueous solution on 106 participants, and it was minimally to mildy irritating in a soap chamber test with a $8 \%$ aqueous solution; the soap produced no unusual irritation response in a 2 -week normal use test; undiluted Cocos nucifera (coconut) oil was not an allergen in 12 participants" (CIR). Carcinogenicity: Not associated with carcinogenic, mutagenic and reprotoxic (CMR) chemicals.
eurofins

# Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## DENTIFICATION

aprylic/Capric Triglyceride (Masking,Perfuming,Skin Conditioning)
U INCl: Caprylic/Capric Triglyceride
CTFA INCI: Caprylic/Capric Triglyceride
CNDA INCI: Caprylic/Capric Triglycerid
CAS Number: 73398-61-5(65381-09-1).
SINECS Number: 277-452-2 / 265-7
Description: Caprylic/capric triglyceride belongsto chemical group known as medium chain triglyceride (MCT). IT is a mix of tri-esters with carbon chains of C8 and C
 and Glycerin

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Odourless
xidising Properties: Non oxidising
iscosity: $27-33 \mathrm{mPas} @ 20^{\circ} \mathrm{C}$
Nater Solubility: Immiscible with water. Miscible with most organic solvents.; < $1 \mathrm{mg} / \mathrm{L}$ (ECHA)
Partial Coefficient logPow: log Pow $=8.2-10.9$
Boiling Point: > $300^{\circ} \mathrm{C}$, decomposition probable
Colour: Sligthly yellowish
Density: $945-949 \mathrm{~kg} / \mathrm{m}^{3}$ at $20^{\circ} \mathrm{C}$
Flash Point: $>260^{\circ} \mathrm{C}$ (closed
apour Pressure: < 5.4E-9 Pa at
apour Pressure. < $5.4 \mathrm{E}-9 \mathrm{~Pa}$ at $20^{\circ} \mathrm{C}$ (ECHA); Old: >240 (COC)
Physical State: Liquid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in Annex XVII
REACH SVHC: Not included in SVHC list (Annex XIV)
GHS Classification: Not classified as per GHS.
Region : UK Type : Cosmetic Restriction. None

## TOXICITY REVIEW

General Toxicity Review: The available toxicological data demonstrate that the Caprylic/Capric Triglyceride is not irritating to eyes. Moreover, the substance is also not irritating and non-sensitising to skin. It shows low acute toxicity with LD50 above $500 \mathrm{mg} / \mathrm{kg}$ in oral, LD50 above $2000 \mathrm{mg} / \mathrm{kg}$ bw in dermal and above $1.86 \mathrm{mg} /$ air in inhalation route of exposure. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products

## TOXICOLOGICAL PROFILE

Endocrine Effects: No endocrine effects are known from using this material in cosmetics
Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the substance is not irritating. (ECHA)
. e of exposure in rats showed that the substance has low skin toxicity. LC50 (inhalation, rat) $>1.86 \mathrm{mg} / \mathrm{l}$ air. The substance was tested for an acute toxicity via inhalation for 6 hours (aerosol) was found to be moderately toxic (no deaths occured). (ECHA)

NOAEL Dermal: NOAEL $1875 \mathrm{mg} / \mathrm{kg}$ bw. Study type: experimental study. Endpoints: sub-chronic toxicity Route of administration: dermal. Species: rat. Methods: weight of evidence. Report date: 1980. Source: ECHA. MoS was calculated based on this data.

NOAEL Oral: NOAEL $500 \mathrm{mg} / \mathrm{kg}$ bw. Study type: repeated dose toxicity. Endpoints: sub-chronic toxicity Route of administration: oral. Species: rat. Methods: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents). Report date: 1992. Source: ECHA. MoS was calculated based on this data.
Reproductive Toxicology: For Glycerides, C8-18 and C18-unsatd. mono- and di-, acetates (CAS No. 91052-13-0) a NOAEL for parental fertility of $1000 \mathrm{mg} / \mathrm{kg}$ bw in rats could be identified.
kin Irritation: In vivo studies on rabbits with semiocclusive coverage were conducted. The substance was found to be not irritating. (ECHA)
Kin Sensitisation: Non-LLNA in vivo examinations were conducted, using guinea pig testing, to examine ocular irritation after application. The substance was found to be non-sensitising. (ECHA) Allergens HRIPT: Undiluted Caprylic/Capric Triglyceride was not irritating or sensitising in 128 subjects (Draize repeated insult patch test) (CIR)
Allergens Patch Test: Facial oil containing $95.51 \%$ of the substance was used in a $24-\mathrm{h}$ single insult occlusive patch test. The study involved 17 participants. The substance was classified as not rritating. (CIR)
Carcinogenicity: Not associated with carcinogenic, mutagenic, or toxic for reproduction (CMR) materials.

## OTHER

Biodegradability (Environmental): Biodegradation in water. Result: 60-93\% degradation after 28 days. Conclusion: readily biodegradable (ECHA)
Ecological toxicity: No effect on fish and aquatic algae up to the limit of water solubility is expected. (ECHA)
( the freshwater algae Scenedesmus subspicatus - 72h (ECHA)
eurofins

# Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Butyrospermum Parkii Butter (Skin Conditioning,Viscosity Controlling)
EU INCI: Butyrospermum Parkii Butter.
CTFA INCI: Butyrospermum Parkii (Shea) Butter.
CNDA INCI: Butyrospermum Parkii (Shea) Butter.
CAS Number: 194043-92-0(91080-23-8).
EINECS Number: 293-515-7
Description: Shea butter is a vegetable fat obtained from the fruit of a tree native to Africa, Butyrospermum parkii. Shea butter is primarily composed of fatty acids such as stearic and oleic acids
EINECS No. 293-515-7
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Water Solubility: Insoluble
Boiling Point: $>350^{\circ} \mathrm{C}\left(>662{ }^{\circ} \mathrm{F}\right)$
Colour: Whitish
Flash Point: > $200{ }^{\circ} \mathrm{C}\left(>392{ }^{\circ} \mathrm{F}\right)$
Melting Point: $32-46(28-42) \mathrm{oC}$
Microbiological stability: Not susceptible to microbiological contamination
eroxide value: 5.0 max
Physical State: Paste.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII.
EACH SVHC: Not included in SVHC list (Annex XIV).
GHS Classification: Not classified as per GHS
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: Shea butter is a vegetable fat obtained from the fruit of a tree native to Africa, Butyrospermum parkii. Shea butter is primarily composed of fatty acids such as stearic and leic acids. Data derived from animal studies demonstrate that the substance is not irritating to eyes and skin. Moreover, the substance is not a skin sensitizer. It shows low acute toxicity with LD50 above $2000 \mathrm{mg} / \mathrm{kg}$ bw and above $5000 \mathrm{mg} / \mathrm{kg}$ bw in dermal and oral and dermal route of exposure respectively. Overall, the ingredient is not considered to be of toxicological concern when used in

OXICOLOGICAL PROFILE
Endocrine Effects: Not regarded as endocrine active substance.
隹 lassified as not irritating. (CIR)
Genotoxicity: Ames test of Butyrospermum Parkii (Shea) Butter (70\%) and Butyrospermum Parkii (Shea) Butter Unsaponifiables (30\%) was conducted. The material was found not mutagenic.
CDS) LD50 (oral, rat) $>5000 \mathrm{mg} / \mathrm{kg}$ bw; LD50 (dermal, rat) $>2000 \mathrm{mg} / \mathrm{kg}$ bw. Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity. Acute toxicity studies via dermal route of exposure in rats showed that the substance has low skin toxicity. (SDS)
朝
(studies of $10 \%$ Butyrospermum parkii (shea) butter and $20 \%$ in acetone were conducted on 10 Pirbright white guinea pigs. The substance was found non Reproductive To
icology: There was no evidence of reproductive toxicity following dietary exposure of shea olein and hydrogenated shea olein in rats at levels equating to greater than $15 \%$ ( 7.5
Skin Irritation: 0.5 ml of Shea butter was applied to rabbit skin and left under occlusive patch for 4 h . Very slight erythema was observed. No skin irritation was observed in a HRIPT ( $60 \%$ of Shea butter, 111 participants). (CIR)
Skin Sensitisation: The substance underwent Maximization study with Freund's completeadjuvant (FCA) during induction (rabbits/ guinea pigs). Concentration of Shea butter was $75 \%$ (induction phase) and $20-50 \%$ (challenge phase). No skin sensitisation or delayed hypersevsitivity were observed. No skin sensitisation was observed in a HRIPT study ( $60 \%$ of Shea butter, 111 participants).(CIR)
Alergens HRIPT: Shea butter underwent HRIPT testing in the concentrations such as: $0.1 \% ; 2 \% ; 4 \% ; 23,5 \% ; 23,7 \%, 24,1 \%, 45 \%$ and $60 \%$ in a various types of cosmetic formulations. The number of volunteers for each study was $>100$. Based on the testing results no sensitisation was observed, irritation was observed only in one participant. The substance is not a dermal irritant or ensitiser. (CIR)
Carcinogenicity: None of the findings in this study were considered to be adverse effects and that shea olein showed no tumorigenic potential at $15 \%$ ( $7.5 \mathrm{~g} / \mathrm{kg} / \mathrm{day}$ ) in the rat (CIR)
OTHER
Saponification Value: mgKOH/g: 175-195
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Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Glycerin (Humectant,Denaturant,Hair Conditioning,Oral Care,Perfuming,Skin Protecting,Viscosity Controlling)
EU INCI: Glycerin.
CTFA INCI: Glycerin
CNDA INCI: Glycerin.
Chinese: 甘油.
CAS Number: 56-81-5.
EINECS Number: 200-289-5.
Symbol: C3H8O3.
Molecular Weight: 92.09.
Molecular Weight: 92.09 .
Description: Glycerin (also called glycerol) is a naturally occurring alcohol compound and a component of many lipids. Glycerin may be of animal or vegetable origin
EINECS No.: 200-289-5
Synonyms: Propane-1,2,3-triol; Glycerin; Glycerine; Propanetriol; 1,2,3-Trihydroxypropane; 1,2,3-Propanetriol
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Odourless
Oxidising Properties: No oxidising properties.
pH: 5,5-8
Viscosity: $1412 \mathrm{mPa}{ }^{*}$ at $20^{\circ} \mathrm{C}$
Water Solubility: Soluble
Partial Coefficient logPow: -1.75 at $25^{\circ} \mathrm{C}$
27 hPa - lit., $290^{\circ} \mathrm{C}$ at 101325 Pa
Particle Size: The non-solid or granular form does not require the particle size distribution study
Flash Point: $160^{\circ} \mathrm{g} 3$ at $20^{\circ} \mathrm{C}$
Vapour Pressure: $0,0033 \mathrm{hPa}$ at $50^{\circ} \mathrm{C}, 0.01 \mathrm{~Pa}(0.001 \mathrm{mmHg})$ at $20^{\circ} \mathrm{C}$ and below $26 \mathrm{~Pa}(0.2 \mathrm{mmHg})$ at $100^{\circ} \mathrm{C}$
LogP Log Kow: -1.75 at $25^{\circ} \mathrm{C}$
Melting Point: $18.17{ }^{\circ} \mathrm{C}$
Microbiological stability: Not susceptible to microbiological contamination. The humectant has a low water activity when interact with water ( $\approx 0.7<\mathrm{Aw}<\approx 0.8$ )
Physical State: Liquid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI.
REACH Annex XVII: Not listed in Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV).
Regulatory Controls: USA: Purified grade of glycerine free from diethylene glycol (DEG) in order to prevent from poison.
GHS Classification: Not classified as per GHS.
Region: Europe Type: Cosmetic Restriction: None
Region: UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: The chemical material, also known as glycerol, is commonly used as a humectant. Its intrinsic properties allow inhibiting the growth of microorganisms by reducing water activities in various products depending on glycerin concentration and formula type. When it comes to local toxicity the chemical does not induce or elicit skin allergy. Data derived from animal studies demonstrate that the substance is not irritating to the skin and eyes. It shows low acute toxicity and also low chronic toxicity where al three routes of exposure are considered (oral, dermal when accidentally ingested, is reduced. Other grades, such as industrial grades of this chemical, must not be used in consumer products particularly in these intended for use by children.

## TOXICOLOGICAL PROFILE

Endocrine Effects: No endocrine effects are known from using this material in cosmetics
Eye irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as not irritating (ECHA). Anhydrous glycerin was applied to the eyes of human patients. There was a strong burning and stinging sensation, with tear production, but no injury was observed. Based on the results, glycerin is not classified as eye irritating to eyes (CIR).
Genotoxicity: In vitro: negative. (S. typhimurium, other: TA 98, TA 100, TA 1535, TA 1537, TA 1538). (ECHA)
LD50: LD50 (oral, rat) $27200 \mathrm{mg} / \mathrm{kg}$ bw; LD50 (dermal, guinea pig) $56,750 \mathrm{mg} / \mathrm{kg}$; Description: Acute toxicity studies via oral route of administration in rat demonstrated low toxicity. Acute toxicity studies via dermal route of exposure in guinea pig showed that the substance has low skin toxicity. (ECHA)
Mutagenicity: No evidence of mutagenicity in Ames test
NOAEL Dermal: NOEL $5040 \mathrm{mg} / \mathrm{kg}$ bw. Study type Repeated dose toxicity. Duration 90 day study. Method Draize method (Study report 1953)
NOAEL Inhalation: NOAEL167 mg/m3. Study type Repeated dose toxicity. Duration 2-week and 13 -week of aerosolized material. Method OECD 413 (Publication data 1992).
NOAEL Oral: NOAEL was established at the range of $8000-10000 \mathrm{mg} / \mathrm{kg}$ bw. Study type Repeated dose toxicity. Duration Chronic toxicity. Method OECD 452 (Published data 1953).
Skin Irritation: In vivo studies on rabbits with occlusive type of coverage, the substance was found to be not irritating (ECHA). Glycerin solution in water ( $50 \%$ ) was applied on 420 patients' skin for 20-24h. Only one patient has a positive reaction. Based on the results of the test, glycerin is not irritating to human skin (CIR).
Skin Sensitisation: LLNA in vivo examinations were conducted, using mouse local lymph node assay (LLNA) test, to find evidence for skin sensitisation. The test results showed that the chemical is
Allergens HRIPT: A modified Draize test ( $n=48$ ) was conducted using moisturiser ( $65.9 \%$ of glycerin). The substance was applied 10 times to the skin for 48 or $72 h$. Then the challenge phase was applied. No reactions were reported after induction or challenge phase. (CIR)
Allergens Patch Test: Patients with eczema showed no irritation and sensitization (CIR)
Carcinogenicity: Not a CMR material.

Biodegradability (Environmental): Readily biodegradable in water. The study was conducted using industrial activated sludge. The substance was almost completely degraded within 24 h . (ECHA) LC50 (Environmental): Fish: LC50 fathead minnow >885 mg/L - 96h (Polyol 80 contained $86 \%$ glycerol); LC50 Cyprinodon variegatus >11,000 ug/L - 96h; Daphnia: LC50 Daphnia magna 1955 ( 1851 to 2068) $\mathrm{mg} / \mathrm{L}$ - 48h; EC50 Daphnia magna $>10,000 \mathrm{mg} / \mathrm{L}-24 \mathrm{~h}$; Algae: EC3 S . quadricauda $>10,000 \mathrm{mg} / \mathrm{L}$ and EC3 M . aeruginosa $2900 \mathrm{mg} / \mathrm{L}-8$ days, in a 28 days study Glycerol was evaluated as relatively nontoxic. Microorganisms: NOEC Pseudomonas putida $>10,000 \mathrm{mg} / \mathrm{L}-16 \mathrm{~h}$; the substance was considered as non-toxic to bacteria. (ECHA)
eurofins

Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

PEG-100 Stearate (Surfactant,Cleansing)
EU INCI: PEG-100 Stearate
CTFA INCI: PEG-100 Stearate.
CNDA INCI: PEG-100 Stearate.
CAS Number: 9004-99-3
Symbol: C20H40O3
Molecular Weight: 328.530 Da
Description: Poly(oxy-1,2-ethanediyl), .alpha.-(1-oxooctadecyl)-.omega.-hydroxy- ( 100 mol EO average molar ratio)
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Faint fatty odour
Water Solubility: Soluble
Flash Point: 500 deg F OC
Melting Point: $60.5^{\circ} \mathrm{C}$
Physical State: Liquid.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV).
Region: Europe Type : Cosmetic Restriction : None
Region: UK Type : Cosmetic Restriction: None

## TOXICITY REVIEW

General Toxicity Review: The substance is not associated with skin sensitisation. Based on the available toxicological information, the substance may cause serious eye irritation and skin irritation. shows moderate acute toxicity with LD50 of $200 \mathrm{mg} / \mathrm{kg}$ bw in oral exposure. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products.

## TOXICOLOGICAL PROFILE

Eye Irritation: 38 notifiers suggest, that the substance may cause serious eye irritation (ECHA)
LD50: LD50 (oral, mouse) $200 \mathrm{mg} / \mathrm{kg}$; Description: Acute toxicity studies via oral route of administration in mice demonstrated high toxicity of the substance.
NOAEL Oral: The NOAEL value was not found, however, based on a history of safe use, this chemical material is considered safe for use in cosmetics. The chemical is unlikely to produce systemic toxicity following skin contact. In conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
Skin Irritation: Undiluted PEG-100 Stearate was patch-tested on 10 individuals. There were no adverse effects. Based on the results, the substance is not skin irritating (CIR).
Skin Sensitisation: Undiluted PEG-100 Stearate was patch-tested on 10 individuals. There were no adverse effects. Based on the results, the substance is not skin sensitiser (CIR)
Allergens HRIPT: HRIPT of skin conditioner containing 1\%-3\% PEG-100 Stearate (without fragrance) was conducted on 188 individuals. There was no skin reaction observed. (CIR)
Allergens Patch Test: Patch test for undiluted PEG-100 Stearate was conducted on 10 individuals. After two 48 h patches application, there was no skin irritation or sensitisation effect observed. (CIR)
Carcinogenicity: Not associated with Carcinogenic, mutagenic and reprotoxic (CMR) chemicals.
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Glyceryl Stearate SE (Emulsifying)
EU INCI: Glyceryl Stearate SE.
CTFA INCI: Glyceryl Stearate SE
CAS Number: 11099-07-3.
EINECS Number: 234-325-6
Symbol: $\mathrm{C} 18 \mathrm{H} 36 \mathrm{O} 2 . x(\mathrm{C} 3 \mathrm{H} 8 \mathrm{O} 3)$
Description: Glyceryl Stearate SE (self-emulsifying) is a lipid.
Synonyms: 1-Glyceryl stearate1-Monostearoylglycerol1-octadecanoyl-rac-glycerol2,3-dihydroxypropyl octadecanoate2,3-Dihydroxypropylstearat ( $\pm$ )
octadecanoylglycerol( $\pm$ )-1-stearoylglycerol $( \pm$ )-2,3-dihydroxypropyl octadecanoate( $\pm$ )-glyceryl monostearate(1)-2,3-Dihydroxypropyl stearate1,2,3-Propanetriol stearoylglycerol1-Stearoyl-glycerol1-Stearoyl-rac-glycerol2,3-Dihydroxypropyl 9-octadecanoate2,3-Dihydroxypropylstearate3-Stearoyloxy-1,2-propanediol3-STEAROYL

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Mild, ester-like
Water Solubility: Insoluble in water
Density: $0.908\left(70^{\circ} \mathrm{C}\right)$
Flash Point: > $93.3^{\circ} \mathrm{C}$
Vapour Pressure: <1.13Pa ( $25^{\circ} \mathrm{C}$ )
Microbiological stability:
stability: Not susceptible to microbiological contamination
Physical State: Flakes

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV).
Regulatory Controls: Not classified as hazardous to human health.
GHS Classification: Not classified as per GHS.
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction: None
TOXICITY REVIEW
General Toxicity Review: Glyceryl Stearate SE is commonly used as emulsifying. Data derived in vivo indicated that the substance is mildly irritating or non-irritating to eyes and skin, it is not sensitising to skin. It shows very low acute toxicity potential with LD50 above $5000 \mathrm{mg} / \mathrm{kg}$ bw. Repeated dose toxicity was evaluated and NOAEL value was determined to be at $2500 \mathrm{mg} / \mathrm{kg}$ bw. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used as intended.

## TOXICOLOGICAL PROFILE

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LD50: LD50 (oral, rat) $>5000 \mathrm{mg} / \mathrm{kg}$. In acute oral toxicity studies in rats, Glyceryl Stearate SE is nontoxic or mildly toxic.
NOAEL Oral: NOAEL $2500 \mathrm{mg} / \mathrm{kg}$ bw. Study type: Repeated dose toxicity. Duration: 90 day study. Reference source: CoCAM, 2014 (because of similarity, the results are based on the Glyceryl tearate)
Skin Irritation: Glyceryl Stearate SE at concentrations of up to $100 \%$ was reported to be mildly irritating or non irritating to the skin of rabbits. After applying 0.5 mL for 4 -hour semiocclusive patch, animals were observed for 72 hours. No erythema or edema were observed (CIR Safety).
Skin Sensitisation: Based on the conducted test, the substance is classified as not sensitising to skin. After applying 0.5 mL for 4 -hour semiocclusive patch, animals were observed for 72 hours. No
Allergens HRIPT: Glyceryl Stearate in a concentration of $20 \%$ was used in a HRIPT study on 61 subjects. The substance was applied under occlusive patches and left for 24 hours. $10-15$ applications were made during 2-3 weeks. After 10-14 days of rest time, a challenge patch was applied to the previously untreated site. The substance did not cause skin sensitisation. (CIR)
Allergens Patch Test: The Single Insult Patch Test was conducted on 20 volunteers using blemish stick and cream containing 13.8\% and $5 \%$ of Glyceryl Stearate. Mild skin irritation was observed. $12.5 \%$ Glyceryl Stearate was applied under occlusion and left for 24 h .21 applications were made. The substance was classified as not irritating. (CIR)
Carcinogenicity: Not associated with carcinogenic, mutagenic and reprotoxic (CMR) chemicals.
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Glyceryl Stearate (Emollient,Emulsifying)
EU INCI: Glyceryl Stearate.
CTFA INCI: Glyceryl Stearate
CNDA INCI: Glyceryl Stearate
CAS Number: 31566-31-1(123-94-4)
EINECS Number: 250-705-4/286-490-9
Symbol: C21H42O4
Description: Glyceryl
escription Glyceryl Stearate SE (self-emulsifying) is a lipid used as surfactant and emulsifying agent
Synonyms: Glyceryl monostearate

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Oxidising Properties: Not oxidising.
Wens Solubility: < $1 \mathrm{mg} / \mathrm{L}$ a $20^{\circ} \mathrm{C}$
Density: $920-960 \mathrm{~kg} / \mathrm{m}^{3}$ at 20
Flammability:
Flash Point: $240^{\circ} \mathrm{C}$ at 1013 hPa (closed cup
Vapour Pressure: $<0.0001 \mathrm{~Pa}$ at $20^{\circ} \mathrm{C}$
LogP Log Kow: $6.1{ }^{\circ}$
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Solid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Listed as exemptions from the obligation to register in accordance with Article 2(7)(a).
REACH SVHC: Not included in SVHC list (Annex XIV).
GHS Classification: Not classified as per GHS.
Region: Europe Type : Cosmetic Restriction : None
Region: UK Type : Cosmetic Restriction: None

## TOXICITY REVIEW

General Toxicity Review: Glyceryl Stearate SE (self-emulsifying) is a well-known lipid used as surfactant and emulsifying agent. The available toxicological data demonstrate that the substance is not irritating to eyes. It was also found to be not irritating and not corrosive. However, slight erythema was observed. The chemical is found to be non-sensitising to skin. It shows low acute toxicity with LD50 above $5000 \mathrm{mg} / \mathrm{kg}$ bw in oral route of exposure and LD50 above $2000 \mathrm{mg} / \mathrm{kg}$ bw in dermal route of exposure. It has low chronic toxicity where both oral and dermal systematic exposure is considered. The ingredient characteristic suggests that interactions of the material with
ingredient is not considered to be of toxicological concern when used in consumer products.

## TOXICOLOGICAL PROFILE

Endocrine Effects: No endocrine effects are known from using this material in cosmetics
Eye Irritation: The substance was tested in vivo to examine ocular irritation potential. Endpoint: The studies resulted in scoring the substance as no irritating. Method: according to OECD Guideline Oen
LD50: LD50 (Oral, mouse) $>5000 \mathrm{mg} / \mathrm{kg}$ bw; Description: Acute toxicity studies via oral route of administration in mice demonstrated slight toxicity of the substance. LD50 (Dermal, rats) >2000 $\mathrm{mg} / \mathrm{kg}$ bw; Description: Acute toxicity studies via dermal route of exposure in rats (semiocclusive type of coverage) showed that the substance has slight skin toxicity. (ECHA)
NOAEL Dermal: NOAEL $2000 \mathrm{mg} / \mathrm{kg}$ bw. Study type Repeated dose toxicity. Endpoints Short-term repeated dose toxicity. Species Rabbit. Source date 1980 (ECHA) MoS was calculated based on this data
NOAEL Oral: NOAEL $1000 \mathrm{mg} / \mathrm{kg}$ bw. Study type Toxicity to reproduction. Endpoint Screening for reproductive / developmental toxicity. Method OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test). Species Rat. Report date 2010 (ECHA) MoS was calculated based on this data.
Skin Irritation: The substance was tested in vivo to examine skin irritation potential. Results: very slight erythema was observed, but effect fully disappeared after 7 days observation. Endpoint: The substance was found to be not irritating to the skin. Method: according to OECD Guideline 404, EU Method B.4, EPA OTS 798.4470 semiocclusive type of coverage; Species: rabbits; Report date: 1999; Source: ECHA. In primary irritation studies on rabbits glyceryl stearate was found to be mildly irritating or not irritating (CIR)
was found to be non-sensitising. Method: OECD Guideline 406, EU Method B. 6 (Skin Sensitisation), Species: guinea pig; Report date:1998; Source: ECHA. In skin sensitisation studies: Landsteiner/Jacobs Method and the Kligman Maximization Procedure in uinea pigs, the substance Insult Patch Test was conduct
After 2 weks rest the

106 volunteers. No allergic
Allergens Patch Test: Single Insult Patch test was
irritating.' (CIR)
Carcinogenicity: Not associated with CMR materials.

## OTHER

Biodegradability (Environmental): Biodegradation in water. Results: $95 \%$ (O2 consumption) degradation after 28 days. Conclusion: readily biodegradable. (OECD 301D) (ECHA)
(Environmental): No toxic effects observed up to the limit of water solubility ( $<1 \mathrm{mg} / \mathrm{L}$ ) for Danio rerio (OECD 203) and Scenedesmus subspicatus (OECD 201) No toxic effects up to the limit of water solubility ( $<1 \mathrm{mg} / \mathrm{L}$ ) for Daphnia magna (OECD 202) (read across information ECHA)

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

elianthus Annuus (Sunflower) Seed Oil (Emollient,Masking,Skin Conditioning)
INCI: Helianthus Annuus Seed Oil
TFA INCI: Helianthus Annuus (Sunflower) Seed Oil.
CNDA INCI: Helianthus Annuus (Sunflower) Seed Oil.
AS Number: 8001-21-6.
INECS Number: 232-273-9
Description: Helianthus Annuus Seed Oil is the oil expressed from the seeds of the Sunflower, Helianthus annuus L., Compositae
Synonyms: Sunflower seed oil from Helianthus annuus; Florasun 90; Gina; Gina (glyceride); Haioru 75B; Helianthus annuus oil
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Specific Gravity: 0.9 (Water $=1$
Water Solubility: Insoluble
Boiling Point: > $100^{\circ} \mathrm{C}\left(>212{ }^{\circ} \mathrm{F}\right)$
Colour: Pale yellow to yellow
ensity: $0.920 \mathrm{~g} / \mathrm{cm} 3$
lammability: May be combustible at high temperature
Fash Point: $>110^{\circ} \mathrm{C}\left(>230^{\circ} \mathrm{F}\right)$. Closed Cup: $>287.78^{\circ} \mathrm{C}\left(550^{\circ} \mathrm{F}\right)$
Melting Point: 0 degC
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Oily liquid.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI.
REACH Annex XVII: Not listed in Annex XVII,
REACH SVHC: Not included in SVHC list (Annex XIV)
Regulatory Controls: Not classified as hazardous to human health.
GHS Classification: Not classified as per GHS
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction : None
TOXICITY REVIEW
General Toxicity Review: Sunflower seed oil is commonly used as emollient, masking and skin conditioning. There is no evidence of skin or eyes irritation or skin sensitisation potential. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used as intended

## TOXICOLOGICAL PROFILE

Eye irritation: Based on the available toxicological data there is no evidence of eye irritation or corrosivity potential.
NOAEL Oral: The NOAEL value was not found, however, based on a history of safe use, this chemical material is considered safe for use in cosmetics. The chemical is unlikely to produce正 kin Irritation: Based on the available toxicological data there is no evidence of skin irritation potential.
kin Sensitisation: Based on the available toxicological data there is no evidence of skin allergy potential.
Allergens HRIPT: Several HRIPTs were performed in products containing Helianthus annuus (sunflower) seed oil in different concentration ( $6 \%, 20 \%, 0.264 \%, 1 \%, 39.8 \%$ ). In all tests there was no idence of skin irritation or sensitisation. (CIR)
woman with delayed positive reaction to sunflower oil in a skin prick test. 10 control participant had negative reaction. Oral challenge test was Carcinogenicity: Not associated with Carcinogenic, mutagenic and reprotoxic (CMR) chemicals
eurofins

# Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Cetyl Alcohol (Emollient,Emulsifying,Emulsion Stabilising,Foam Boosting,Masking,Opacifying,Surfactant,Viscosity Controlling)
EU INCI: Cetyl Alcohol
TFA INCI: Cetyl Alcohol
NAD INCI: Cetyl Alcohol
CAS Number: 36653-82-4.
EINECS Number: 253-149-0
Symbol: C16H34O1
Description: Cetyl Alcohol is a synthetic fatty alcohol. It belongs to the type of surfactants named nonionic surfactant.
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Odourless
oxidising Properties: Non oxidising.
iscosity: $3.394 \mathrm{~mm}^{2} / \mathrm{s}$ (static) at $100^{\circ} \mathrm{C}$
Nater Solubility: $0.024 \mathrm{mg} / \mathrm{L}$ at $25^{\circ} \mathrm{C}$
artial Coefficient logPow: 6.65
Colour: Colourless
Density: $0.889 \mathrm{~g} / \mathrm{cm}^{3}$ at $20^{\circ} \mathrm{C}$
lash Point: $149^{\circ} \mathrm{C}$ at 101325 Pa
elting Point: $49^{\circ} \mathrm{C}$
Physical State: Solid

## REGULATORY REQUIREMENTS

LP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII. Not tisted in Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV).
GHS Classification: Not classified as per GHS. Self classified: H319: Causes serious eye irritation H400: Very toxic to aquatic life. H411: Toxic to aquatic life with long lasting effects.
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction : None
TOXICITY REVIEW
General Toxicity Review: The substance is not associated with skin sensitisation and skin irritation. Data derived from animal studies demonstrate that the substance is not irritating to eyes. It shows low acute toxicity with LD50 above $2000 \mathrm{mg} / \mathrm{kg}$ bw in oral exposure and very low skin toxicity with LD50 of $8000 \mathrm{mg} / \mathrm{kg}$ bw in dermal exposure. It has low chronic toxicity where oral and dermal systematic exposure is considered. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo to examine ocular irritation potential. Endpoint: The studies resulted in scoring the substance as non-irritating. Method: according to OECD Guideline 405 (Acute Eye Irritation / Corrosion); Species:New Zealand White rabbit; Report date: 1996; Source: ECHA. The substance is self classified by some of the raw material manufacturer's Flinn Scientific) as serious eye irritant (H319)
LD50: LD50 (oral, rat) $>2000 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 401 (Acute Oral Toxicity); Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance. LD50 (dermal, rabbit) $8000 \mathrm{mg} / \mathrm{kg}$ bw; Description: Acute toxicity studies via dermal route of exposure in rabbits (occlusive type of coverage) showed that the substance has very low skin toxicity. (ECHA)
utagenicity: No adverse effect observed
NOAEL Dermal: NOAEL $1000 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: repeated dose toxicity; Endpoint: chronic toxicity: dermal; Guideline:OECD Guideline 411 (Subchronic Dermal Toxicity: $90-$ Day Study); Species:rat; Report date:1995; Source: ECHA, MoS was calculated based on this data
NOAEL Oral: NOAEL > $4257 \mathrm{mg} / \mathrm{kg}$ bw. Study type: Repeated dose toxicity. Endpoints: sub-chronic toxicity. Route of administration: oral. Species: rat. Report date: 1966. Source: ECHA, MoS was calculated based on this data.
Skin Irritation: The substance was tested in vivo to examine skin irritation potential. Results: Erythema observed at 1 hour after removal of dressings regressed in the first 24 hours. Endpoint: The substance was found to be not irritating to the skin. Method: according to OECD Guideline 404 and EU Method B. 4 semiocclusive coverage; Species: rabbits; Report date: 1994; Source: ECHA. Skin Sensitisation: The substance was tested in vivo (Non-LLNA) to examine skin sensitising potential. Endpoint: The substance was found to be non-sensitising. Method: According to OECD
Carcinogenicity: Not associated with CMR materials.
OTHER
LC50 (Environmental): EC $50>100 \mathrm{mg}$ product/L. Method: Chronic bacterial toxicity according to test method DIN 38412 p.8.; LC $50>$ to 100 mg product/L Method: ISO $7346 / 2$ (semistatic)
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Cannabidiol (CBD) (Antioxidant,Antiseborrhoeic,Skin Conditioning,Skin Protecting)
EU INCI: Cannabidiol - Derived from Extract of Tincture or Resin of Cannabis
CAS Number: 13956-29-1.
Symbol: C21H30O2
Molecular Weight: 314.469.
Description: Cannabidiol (CBD) derived from the hemp plant in its entirety
IUPAC Name: 2-[(1R,6R)-3-methyl-6-prop-1-en-2-ylcyclohex-2-en-1-yl]-5-pentylbenzene-1,3-diol
Synonyms: (-)-CBD; (-)-Cannabidiol; (-)-trans-Cannabidiol; CBD
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Negligible
Water Solubility: Insoluble in water
Colour: White, whitish to beige, slightly yellow
Flash Point: > $100^{\circ} \mathrm{C}$
Melting Point: $69^{\circ} \mathrm{C}$
Physical State: Solid.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII
REACH Cry Cols. Cannabidiol (CBD) (Annex XIV)
Regulatory Controls: Cannabidiol (CBD) as such, irrespective of its source, is not listed in the Schedules of the 1961 Single Convention on Narcotic Drugs. However, it shall be prohibited from use in cosmetic products (II/306), if it is prepared as an extract or tincture or resin of Cannabis in accordance with the Single Convention. Please note that national legislations on controlled substances drug'. Cannabidiol (CBD) extracted from certain parts of the hemp plant like the leaves and stems had been permitted. CBD can be governed differently in each Member State. France prohibits CBD sourced from hemp flowers in cosmetics. Czech Republic permits CBD sourced from hemp flowers in cosmetics (February 2021). (THC) Prohibited if contains narcotics, natural and synthetic (e.g. delta-9-tetrahydrocannabinol)). According to Annex II of the European Regulation EC (No) 1223/2009 on cosmetic products narcotics, natural and synthetic cosmetic ingredients are prohibited. It is understood that Tetrahydrocannabino (THC) is the psychoactive constituent of cannabis and therefore should not be present in raw materials for use in cosmetic products. Grades of hemp derivatives that contain more than 10 ppm of THC are considered not suitable for use in cosmetics. With regards to the CTPA (UK) position paper dated April 2019 THC is not allowed unless it is present as a trace element of the amount not more than 1 mg in a product container'
unborn child. Self classified: H332 Harmful if inhaled. H336 May cause drowsiness or dizziness..
Region : Europe Type : Cosmetic Restriction : Permitted if derived from parts of the Cannabis like leaves and stems. Prohibited if contains narcotics, natural and synthetic (e.g. delta-9( tetrahydrocannabinol)). Prohibited if derived from hemp flower (France).

## TOXICITY REVIEW

General Toxicity Review: Cannabidiol is suspected of damaging fertility or the unborn child. Cannabidiol (CBD) as such, irrespective of its source, is not listed in the Schedules of the 1961 Single Convention on Narcotic Drugs. However, it shall be prohibited from use in cosmetic products (11/306), if it is prepared as an extract or tincture or resin of Cannabis in accordance with the Single Convention. It is also noted that national legislations on controlled substances may also apply. According to Annex II of the European Regulation EC (No) 1223/2009 on cosmetic products narcotics, natural and synthetic cosmetic ingredients are prohibited. It is understood that Tetrahydrocannabinol (THC) is the psychoactive constituent of cannabis and therefore should not be presentives that contain more than 10 ppm THC products or present as atrace ement of the amount not more than 1 mg in a product

## TOXICOLOGICAL PROFILE

Eye irritation: May cause a mechanical eye irritation as supplied.
D50: LD50 (Oral, rat) > $4400 \mathrm{mg} / \mathrm{kg}$; LD50 (Dermal, rabbit) > $5000 \mathrm{mg} / \mathrm{kg}$; (ref. SDS enecta)
O conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
Safety evaluation: As per WHO paper Cannabidiol (CBD) is one of the naturally occurring cannabinoids found in cannabis plants, be converted to tetrahydrocannabinol (THC) under experimental conditions. There is no evidence of recreational use of CBD or any public health related problemsassociated with the use of pure CBD. Additionally, there is no substantive evidence as to whether + )-CBD is likely to cause THC-like psychoactive effects (ref. 39th ECDD (2017) Agenda item 5.2)
Skin Sensitisation: Based on the available toxicological data there is no evidence of skin allergy potential.

## IDENTIFICATION

Theobroma Cacao (Cocoa) Seed Butter (Emollient,Masking,Skin Conditioning,Skin Protecting)
EU INCI: Theobroma Cacao Seed Butter
CTFA INCI: Theobroma Cacao (Cocoa) Seed Butter
CNDA INCI: Theobroma Cacao (Cocoa) Seed Butter
CAS Number: 84649-99-0(8002-31-1)
EINECS Number: 283-480-6.
Description: Cocoa Butter is extracted from the roasted seeds of Theobroma cacao, a tree native to the Americas.This butter is obtained from Cocoa mass. This mass is obtained from fermentation, drying and several cleansing of roasted organically grown beansof "Theobroma cacao"*.

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Slight cocoa odour (close to chocolate odour)
Specific Gravity: 0.95
Water Solubility: Insoluble
Colour: Pale yellow to yellow
Flash Point: > $250^{\circ} \mathrm{C}$
Melting Point: $33-38^{\circ} \mathrm{C}$
Physical State: Solid.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI.
CLP Regulation (EC) No 1272/2008: Not classified
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV)
GHS Classification: Not classified as per GHS
Region : Europe Type : Cosmetic Restriction : None
Region: UK Type : Cosmetic Restriction: None

## TOXICITY REVIEW

General Toxicity Review: There is limited toxicological data for the Cocoa seed butter. However, there is no evidence of potential irritating properties for skin and eyes. The substance is not expected to cause skin sensitisation. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products.

## TOXICOLOGICAL PROFILE

Eye Irritation: Based on the available toxicological data there is no evidence of eye irritation or corrosivity potential.
NOAEL Oral: The NOAEL value was not found, however, based on a history of safe use, this chemical material is considered safe for use in cosmetics. The chemical is unlikely to produce systemic toxicity following skin contact. In conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
Skin Irritation: The substance is not a dermal irritant in HRIPT test with $150 \mathrm{~mL} 50.1 \%$ solution of the test material in semi-occlucive type of coverage (CIR).
Skin Sensitisation: The substance is not a dermal sensitizer in HRIPT test with $150 \mathrm{~mL} 50.1 \%$ solution of the test material in semi-occlucive type of coverage (CIR)
Allergens HRIPT: Lip balm containing 50.1\% of Theobroma Cacao (Cocoa) Seed Butter was used in a HRIPT study. The test material was applied under semi-occlusion. The substance was not considered to be a dermal irritant or sensitiser. (CIR)
Carcinogenicity: Not associated with carcinogenic, mutagenic and reprotoxic (CMR) chemicals.
eurofins

# Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## DENTIFICATION

Stearic Acid (Cleansing,Emulsifying,Emulsion Stabilising,Masking,Refatting,Surfactant)
EU INCI: Stearic Acid.
CTFA INCI: Stearic Acid.
CAS Number: 57-11-4.
EINECS Number: 200-313-4.
Symbol: C18H36O2
Molecular Weight: $284.48 \mathrm{~g} / \mathrm{mol}$.
Description: Stearic acid is a saturated fatty acid with an 18 -carbon chain derived from animal or vegetable feedstocks. SA is obtained from fats and oils by the sapo
Commercial stearic acid is usually a mixture of stearic and palmitic acids
IUPAC Name: Octadecanoic acid

## PHYSICOCHEMICAL

Odour: Characteristic
Oxidising Properties: Not an oxidising solid
Water Solubility: Easily soluble in diethyl ether Soluble in acetone. Insoluble in cold water, hot water. Slightly soluble in Ethanol. Soluble in alcohol, chloroform, carbon disulfide, carbon tetrachloride, amyl acetate, toluene. 1 gram dissolves in 21 ml alcohol, 5 ml benzene, 2 ml chloroform, 26 ml acetone, 6 ml carbon tetrachloride, 3.4 ml carbon disulfide
Boiling Point: $370^{\circ} \mathrm{Cat} 1,013 \mathrm{hPa}$
Colour: White
Density: $0.87 \mathrm{mg} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
lammability: The substance is combustible when exposed to heat or flame
Fash Point: $196.11^{\circ} \mathrm{C}\left(385^{\circ} \mathrm{F}\right)$ or $365^{\circ} \mathrm{F}, 180^{\circ} \mathrm{C}(\mathrm{COC})$
Vapour Pressure: 1 hPa at $173,7^{\circ} \mathrm{C},<0.1 \mathrm{hPa}$ at $20^{\circ} \mathrm{C}$
LogP Log Kow: 8.23
Melting Point: $53.0-59.0^{\circ} \mathrm{C}$
Physical State: Solid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in Annex XVII.
GHS Classification. Not cassified as per (Ans
RHich - Euration. Not classified as per GHS.
Region: UK Type: Cosmetic Restriction: None

## TOXICITY REVIEW

General Toxicity Review: Stearic Acid is well-known cleansing, emulsifying, masking ingredient. In vivo studies resulted in vivo resulted in scoring the chemical as not irritating to eyes and skin. Non-LLNA in vivo study indicated that the substance is not sensitising. It shows very low acute toxicity potential above $5000 \mathrm{mg} / \mathrm{kg}$ bw and above $2000 \mathrm{mg} / \mathrm{kg}$ bw via oral and dermal exposure respectively. Repeated dose toxicity study indicated NOAEL at $1000 \mathrm{mg} / \mathrm{kg}$ bw/day. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used as intended.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as not irritating (ECHA). In ocular irritation studies, Stearic Acid neat and at concentrations ranging from 1 to $19.4 \%$ in cosmetic product formulations produced no to minimal irritation after single and multiple (daily, 14 -day) instillations into the eyes of albino rabbits (CIR)
LD50: LD50 (oral, rat) >5000 mg/kg bw: OECD Guideline 401 (Acute Oral Toxicity); Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance. ; LD50 (dermal, rabbit) > $2000 \mathrm{mg} / \mathrm{kg}$ bw, OECD Guideline 434 (Acute Dermal Toxicity - Fixed Dose Procedure); Description: Acute toxicity studies via dermal route of exposure in rabbits (occlusive type of coverage) showed that the substance has low skin toxicity. (ECHA)
NOAEL Oral: NOAEL $1000 \mathrm{mg} / \mathrm{kg}$ bw. Study type Repeated dose toxicity. Endpoint:sub-chronic toxicity: oral; Species:rat; Guideline:OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test); Source: ECHA, MoS was calculated based on this data
Reproductive Toxicology: NOAEL $1000 \mathrm{mg} / \mathrm{kg}$ bw. Study type Toxicity to reproduction. Endpoint: screening for reproductive / developmental toxicity: oral; Species:rat; Guideline:OECD Guideline 22 (Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test); Source: ECHA
Sin (Abtion:
(EHA). In clinical repeated insult patch tests (open, occlusive, and semicon was reported (CIR).
(the oncentrations ranging from insult patch tests (open, occlusive, and semi-occlusive), maximization
Allergens HRIPT: Cosmetics containing $5 \%$ of Stearic acid produced moderate skin irritation in 13 -week dermal toxicity studies (rats, $4 \mathrm{ml} / \mathrm{kg}$ and $227 \mathrm{mg} / \mathrm{kg}$ ). (CIR)
Allergens MaximisationTest: Stearic acid showed few and minimal reactions to challenge application in a guinea pig maximisation study ( $3.5 \%$ in the applied product). (CIR)
Allergens Patch Test: Stearic acid in the concentration of $35-65 \%$ underwent single insult occlusie patch test. Moderate erythema and slight edema were observed in some of the tested animals (rabbits). (CIR) In skin sensitising studies on 25 human volunteers there was no reaction observed. (ECHA)
(It levels greater than or equal to $0.1 \%$ is identified as probable, possible or confirmed human carcinogen by IAR

OTHER
Detergent Class: Non-ionic surfactant
Biodegradability (Environmental): Biodegradation in water: screening tests. Considered as readily biodegradable in water. Biodegradation in water and sediment: simulation tests and Biodegradation in soil: No tests are required due to ready biodegradability of category members Fatty Acids.
LC50 (Environmental): LC50 - no effects for fish within water solubility; EC50, NOEC50 no effects for algae within water solubility
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Ceteareth－20（Cleansing，Emulsifying，Surfactant）
EU INCI：Ceteareth－20．
Chinese：乙氧基化 C16－18－醇．
CAS Number：68439－49－6．
EINECS Number：
Symbol：C24H50O5．
ght： 418.37
Description：Ceteareth－20 is the polyethylene glycol ether of cetearyl alcohol；may contain potentially toxic impurities such as 1，4－dioxane．C16－18 alcohols，ethoxylated（20 mol EO average molar ratio）

STHER
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Oxidising Properties：No oxidising properties．
Specific Gravity：approx 1.015 ＠ $40^{\circ} \mathrm{C}$
Water Solubility： $0.04 \mathrm{mg} / \mathrm{L}$ at $25^{\circ}$
Boiling Point： $345^{\circ} \mathrm{C}$ at 1013 hPa
Density：Bulk density $=0.87 \mathrm{~g} / \mathrm{cm}^{3}$ at $21^{\circ} \mathrm{C}$
Flash Point：＞ $250^{\circ} \mathrm{C}$
LogP Log Kow：Log Pow： 7.07 at $25^{\circ} \mathrm{C}$
Melting Point： $49.6^{\circ} \mathrm{C}$ at 1013 hPa
Physical State：Solid．
REGULATORY REQUIREMENTS
CLP Regulation（EC）No 1272／2008：Not classified as per CLP，Annex VI．
REACH Annex XVII：Not listed in the Annex XVII．
REACH SVHC：Not included in SVHC list（Annex XIV）
Regulatory Controls：Not classified as hazardous to human health．
GHS Classification：H411：Toxic to aquatic life with long lasting effects．
Region ：UK Type ：Cosmetic Restriction ：None

## TOXICITY REVIEW

General Toxicity Review：In vivo studies resulted resulted in scoring the chemical as not irritating to eyes and skin．Non－LLNA in vivo study indicated that the substance is not sensitising．It shows very low acute toxicity potential above $10000 \mathrm{mg} / \mathrm{kg} \mathrm{bw}$ and above $2000 \mathrm{mg} / \mathrm{kg}$ bw via oral and dermal exposure respectively．Median lethal concentration via inhalation route of exposure was ound to be above $1600 \mathrm{mg} / \mathrm{m} 3$ air．Repeated dose toxicity study indicated NOAEL at above $500 \mathrm{mg} / \mathrm{kg} \mathrm{bw} /$ day．The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects．Overall，the ingredient is not considered to be of toxicological concern when used as intended．

## TOXICOLOGICAL PROFILE

Eye Irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as not irritating．（ECHA）
Eye irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as not irritating．（ECHA）
Developmental toxicity：NOAEL $>=250 \mathrm{mg} / \mathrm{kg}$ bw／day study type：Developmenta
Genotoxicity：Negative in vitro gene mutation study in mammalian cells（ECHA）
LD50：LD50（oral，rat）$>10000 \mathrm{mg} / \mathrm{kg}$ bw；OECD Guideline 401 （Acute Oral Toxicity）；Description：Acute toxicity studies via oral route of administration in rats demonstrated very low toxicity of the substance．LD50（dermal，rat）$>2000 \mathrm{mg} / \mathrm{kg}$ bw；OECD Guideline 402 （Acute Dermal Toxicity）：Description：Acute toxicity studies via dermal route of exposure in rats（occlusive type of coverage） showed that the substance has low skin toxicity．LC50（inhalation，rat）＞ $1600 \mathrm{mg} / \mathrm{m}^{3}$ air；OECD Guideline 403 （Acute Inhalation Toxicity）；Description：The substance when tested for acute toxicity via inhalation for 4 hours（aerosol）was found to have low toxicity．（ECHA）
NOAEL Oral：NOAEL＞＝ $500 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：Repeated dose toxicity．Endpoint：sub－chronic toxicity：oral；Guideline：OECD Guideline 408 （Repeated Dose $90-$ Day Oral Toxicity Study in Rodents）；Species：rat；Source：ECHA．MoS was calculated based on this data
Skin Irritation：In the in vivo studies on rabbits with occlusive coverage the substance was found to be not irritating．（ECHA）
Skin Sensitisation：Non－LLNA in vivo examinations were conducted，using guinea pigs，Buehler test，to find evidence for skin sensitisation．The test results showed that the chemical is non－
Carcinogenicity：No component of this product present at levels greater than or equal to $0.1 \%$ is identified as a carcinogen or potential carcinogen by IARC，ACGIH，NTP，\＆OSHA
eurofins

# Cocoa Hand \＆Body Butter 2000mg（2022－753－5050）（variant）CPSR EU／UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

## Phenoxyethanol（Preservative，Antimicrobial）

EU INCI：Phenoxyethanol．
TFA INCI：Phenoxyethano
CNDA INCI：Phenoxyethanol．
Chinese：苯氧乙醇．
CAS Number：122－99－6
EINECS Number：204－589－7
yymbol：C8H10O2
olecular Weight： 138.169
Description：Phenoxyethanol is a germicidal and germistatic glycol ether，phenol ether，and aromatic alcohol
Ph．Eur．Name：2－Phenoxyethan
Synonyms：2－Phenoxyethanol，Phenoxyethanol，Ethylene glycol monophenyl ether

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Odour：Faint aromatic odour
$\mathrm{pH}: 5.5-7.0$（1\％aqueous solution）
Specific Gravity： $1.1050 \mathrm{~g} / \mathrm{cm} 3$
Viscosity：＜ 100 cps ＠ 250 C
Partial Coefficient logPow： 1.2 ＠ 23 oc
Boiling Point： 245.2 deg C＠ 760.00 mm Hg
Boiling Point
Flammability：Flammable
Flash Point： $126^{\circ} \mathrm{C}$ at 1013 hPa
Vapour Pressure： 0.01 hPa at $20^{\circ} \mathrm{C}, 0.18 \mathrm{hPa}$ at $50^{\circ} \mathrm{C}$
LogP Log Kow： 1.2 at $23^{\circ} \mathrm{C}$
Melting Point： $9.1^{\circ} \mathrm{C}$ at 1013 hPa
Microbiological stability：Not susceptible to microbiological contamination
Physical State：Colorless，oily liquid．

## REGULATORY REQUIREMENTS

CLP Regulation（EC）No 1272／2008：Classified as：AcuteTox． 4 H302；STOT SE 3 H335；Eye Dam． 1 H318；ATE：oral：ATE $=1394 \mathrm{mg} / \mathrm{kg}$ bw REACH Annex XVII：Not listed in the Annex XVII．
Regulatory Controls：Maximum concentration in ready for use preparation is 1．0\％
GHS Classification：H302：Harmful if swallowed．H319：Causes serious eye irritation．
Region ：Europe Type ：Cosmetic Restriction：1\％
Region：UK Type ：Cosmetic Restriction：1\％

## TOXICITY REVIEW

General Toxicity Review：The chemical is a well－known preservative．The intrinsic properties of the chemical cause that the product is quite toxic when it comes to acute toxicity，also systematic
 her substances would not lead to any synergistic or unpredictable adverse effects．Overall，the ingredient is not considered to be of toxicological concern when used at below the restricted level of $1 \%$ in ready for use preparations．

## TOXICOLOGICAL PROFILE

AcuteToxicology：LD50＞ 2000 mg／kg bw
Endocrine Effects：Not associated with endocrine effects．
Eye Irritation：Causes serious eye irritation it was from experimental study conducted according to OECD Guideline 405 （Acute Eye Irritation／Corrosion）．The substance was tested in vivo（rabbits） oxamine ocular irritation after application．The studies results in scoring the chemical as irritating to eyes（ECHA）． 0.1 ml of undiluted phenoxyethanol was applied to the one eye of 12 rabbits． Many adverse effects like erythema，edema，injected irides，and slight cornea opacities were noticed．The substance was classified as strong eye irritant under the conditions of the study（CIR）． inalation：May cause respiratory tract irritation．
D50：LD50（Oral，rats） $1840 \mathrm{mg} / \mathrm{kg}$ bw this was from a experimental study conducted according to OECD Guideline 401，Description：Acute toxicity studies via oral route of administration in rats and sowed that the substance has low skin toxicity．（ECHA）LD50（dermal，rats male／female） $14391 \mathrm{mg} / \mathrm{kg}$ bw based on a publication Final report on safety assessment of phenoxyethanol．J．Am． oil．Toxicol．9（2）：259－277（1990）
Mutagenicity：Not associated with mutagenic
NOAEL Dermal：NOAEL $500 \mathrm{mg} / \mathrm{kg} /$ day．Study type Repeated dose toxicity．Endpoints：sub－chronic toxicity．Route of administration：dermal．Species：rabbit．Result：Remarks no effects were found in all tested doses apart from an observation of erythema and scaling of the skin（ local effects）．Methods：OECD Guideline 411 （Subchronic Dermal Toxicity：90－Day Study）．Report date： 1986．Source：ECHA．MoS was calculated based on this data．
NOAEL Inhalation：NOAEC $48.2 \mathrm{mg} / \mathrm{m} 3$ ．Study type：Repeated dose toxicity．Endpoints；short－term repeated dose toxicity．Route of administration：inhalation．Method：OECD Guideline 412 Subacute inhalation Toxicity：28－Day Study）．Species．Rats．Report date 2007 ．Nas calculated based on this data．
and date： 2003 Source：ECHA．NOAEL $249 \mathrm{mg} / \mathrm{kg}$ bw（ oral，rats）and $468 \mathrm{mg} / \mathrm{kg}$ bw Phototoxicity：Not associated with phototoxicity．
Precutaneous Absorption：90\％
Safety evaluation：SCCS（2016）concluded that the preservative is safe for all population including sensitive subpopulations such as pregnant women
skin Irritation：The substance was tested in vivo on rabbits to examine skin irritation with occlusive coverage．The substance was applied to dorsal area of the trunk．After 4 h exposure，the substance was found to be not irritating（ECHA）．Of 2736 patients patch－tested with $1 \%$ phenoxyethanol in petrolatum，none had signs of irritant or allergic reactions 2 and 4 days after application． Based on the results，the substance is not skin irritant（CIR）
Skin Sensitisation：Reported to cause contact eczema in a single test study（http：／／www．medscape．com／viewarticle／516045＿4）．Allergenic contact dermatitis could be a rare adverse effect in patients with a history of flexural eczema to an aqueous cream which contains $1 \%$ of the preservative．No allergic sensitisation was observed in patients without history of an adverse reaction to 2 － （ECHA）．Phenoxyethanol was evaluated for sensitization potential in a modified repeated insult patch test using a panel of 138 male and female subjects．A $10 \%$ solution of phenoxyethanol in petrolatum was applied under an occlusive patch to the backs of the test subjects．No skin reaction were observed．In was concluded that the substance is not a skin sensitiser（CIR）．
Allergens HRIPT：Repeated Insult Patch Test was conducted on 51 subjects aged 16－60．The substance in the concentration of $10 \%$（in mineral oil）was applied to skin．The patches were applied 3 times per week for 3 weeks．After the rest time the challenge phase was applied to the induction site and previously untreated． 2 participants reported mild irritation after induction 3 and 5 respectively．The substance is considered to be non primary irritant．（CIR）
Allergens LLNAEC3：When tested using Guinea pig maximisation test（vehicle olive oil）and LLNA method was found to be not sensitising．（ECHA）
Allergens Patch Test：Patch test was conducted on 2736 participants using $1 \%$ solution of Phenoxyethanol in petrolatum．No irritations or allergic reaction were observed after 2 and 4 days after application．In a different study 1，5 and $10 \%$ solutions of Phenoxyethanol in Petrolatum were used．The study involved 130 participants．No irritations and allergic reactions were observed．Allergic contact dermatitis can be only a rare event in sensitive patients．（CIR）
Carcinogenicity：Not associated with carcinogenic，mutagenic and reprotoxic（CMR）chemicals．

## OTHER

Detergent Class：Preservative
LC50（Environmental）：Fish：LC50 fathead minnows（Pimephales promelas） $344 \mathrm{mg} / \mathrm{L}-96 \mathrm{~h}$ ；LC50 Danio rerio $154 \mathrm{mg} / \mathrm{L}-96 \mathrm{~h}$ ；NOEC Pimephales promelas $23 \mathrm{mg} / \mathrm{L}-34 \mathrm{days}$ ；Daphnia／aquatic Vesmodesmus su0 Daphnia magna $488 \mathrm{mg} / \mathrm{L}-48 \mathrm{~h}$ ；LC50 Chaetogammarus marinus $941 \mathrm{mg} / \mathrm{L}-48 \mathrm{~h}$ and $357 \mathrm{mg} / \mathrm{L}-96 \mathrm{~h} ; \mathrm{NOEC}$ ，Daphnia magna $9.43 \mathrm{mg} / \mathrm{L}-21 \mathrm{days}$ ；Algae：EC50 of activated sludge $360 \mathrm{mg} / \mathrm{L}$ ；EC10 of $410 \mathrm{mg} / \mathrm{L}$ and an EC50 of $1494 \mathrm{mg} / \mathrm{L}$－Pseudomonas putida（ECHA）
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

EthylhexyIglycerin（Deodorant，Skin Conditioning）
EU INCI：Ethylhexylglycerin．
CTFA INCI：Ethylhexylglycerin
CNDA INCI：Ethylhexylglycerin
Chinese：乙基己基甘油．
CAS Number：70445－33－9
EINECS Number：408－080－2．
Symbol：C11H24O3
Description：Ethy：204．307 Da
Description：Ethylhexylglycerin is a glyceryl ether
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
pH：6．0－7．0（2 g／l aq．）
Viscosity：ca． 144 dynamic viscosity（ mPa s ）at $20^{\circ} \mathrm{C}$
Water Solubility： $1.8 \mathrm{~g} / \mathrm{L}$ at $22.5^{\circ} \mathrm{C}$
Boiling Point： $325^{\circ} \mathrm{C}$
Density： $0.962 \mathrm{~g} / \mathrm{ml}$
Fash Point： $152{ }^{\circ} \mathrm{C}$ at 103.8 kPa
LogP Log Kow： 253 at $2020^{\circ} \mathrm{C}$
Melting Point：＜－76 ${ }^{\circ} \mathrm{C}$ at 1013 hPa
Microbiological stability：Not susceptible to microbiological contamination
Physical State：Liquid．

## REGULATORY REQUIREMENTS

CLP Regulation（EC）No 1272／2008：Classified as：Eye Dam．1，H318；Aquatic Chronic 3，H412．
REACH Annex XVII：Not listed in Annex XVII
REACH SVHC：Not included in SVHC list（Annex XIV）．
GHS Classification：H412：Harmful to aquatic life with long lasting effects．H332：Harmful if inhaled．H318：Causes serious eye damage．．
Region ：UK Type ：Cosmetic Restriction ．None

## TOXICITY REVIEW

General Toxicity Review：The chemical is known deodorant and skin conditioner．Data derived in vivo（animal data）showed that ethylhexylglycerin is slightly irritating to skin and does not have sensitising properties．Ocular irritation potential study showed that the substance causes serious eye damage to eyes．Acute toxicity studies via oral and dermal routes of administration in rats demonstrated low toxicity of the substance．The available NOAEL（repeated dose toxicity）were determined to be $50 \mathrm{mg} / \mathrm{kg} / \mathrm{bw} / \mathrm{day}$ for rats and the findings would be considered to be of relatively high systemic toxic．

## TOXICOLOGICAL PROFILE

Endocrine Effects：No endocrine effects are known from using this material in cosmetics
Eye Irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The test results showed that the substance causes serious eye damage（ECHA）．Undiluted ethylhexylglycerin was instilled into the left conjunctival sac of each of 3 rabbits．Conjunctival redness andchemosis were observed in all animals and irritation scores of 2 or 3 predominated．It was Genotoxicity：In vitro：negative（S typhimurium TA 100）In vivo：negative（CIR）．
Genotoxicity：In vitro：negative（S．typhimurium TA 100）in vivo：negative（mouse）（ECHA）
LD50：LD50（oral，rat）$>2000 \mathrm{mg} / \mathrm{kg}$ bw，OECD Guideline 401 （Acute Oral Toxicity），Description：Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance．LD50（dermal，rat）＞ $2000 \mathrm{mg} / \mathrm{kg}$ bw，OECD Guideline 402 （Acute Dermal Toxicity），Description：Acute toxicity studies via dermal route of exposure in rats（semiocclusive type of coverage）showed that the substance has low skin toxicity．（ECHA）
NOAEL Oral：NOAEL $100 \mathrm{mg} / \mathrm{kg}$ bw．Study type：repeated dose toxicity（ 28 －day）．Endpoint：short－term repeated dose toxicity．Route of administration：oral．Species：rat．Method：OECD Guideline 407 （Repeated Dose 28－Day Oral Toxicity Study in Rodents）．Report date：1992．Source：ECHA．MoS was calculated based on this data．NOAEL $50 \mathrm{mg} / \mathrm{kg} / \mathrm{day} \mathrm{Repeated} \mathrm{dose} \mathrm{toxicity} \mathrm{(rat}, \mathrm{Method:}$ OECD 471）（Lipoid Kosmetik tox．summary）MoS was calculated based on this data．
Precutaneous Absorption：10\％．In case MW＞ 500 Da and log Pow is smaller than－ 1 or higher than 4，a value of $10 \%$ dermal absorption can be considered，ref．Guidelines on Annex I）．
Skin Irritation：In vivo studies on rabbits with semiocclusive coverage were conducted．The substance was found to be slightly irritating to the skin（ECHA）．Based on the studies conducted on New ．
Skin Sensitisation：Non－LLNA in vivo examinations were conducted，using guinea pig testing，to find evidence for skin sensitisation．The test results showed that the substance is not a dermal sensitizer（ECHA）．Local lymph node assay was evaluated at the substance concentrations up to $50 \%$ ．The substance was found not a sensitizer．（CIR）
Alergens LLNAEC3：When tested at concentrations up to $50 \%$ on tritiated thymidine and LLNA method，Ethylhexylglycerin was found to be not sensitising．（CIR） groups of 20 guinea pigs．one of the 2 groups served as the negative control．The test substance（ 0.1 mL ）was injectedintradermally into the neck region at concentrations of $0.5 \%$ in peanut oil and $0.5 \%$ in Freund complete adjuvant／saline 1：1，respectively；and at a third pair of sites with Freund＇s complete adjuvant／water 1：1．Sensitization was not observed in any of the animals tested． Source：CIR
Allergens Patch Test：Patch test was conducted on 111 participants using cosmetic preparation with $0.995 \%$ of Ethylhexylglycerin．A semiocclusive patch test was applied 3 times per week and a challenge patch test conducted after 3 weeks．．No irritations or allergic reaction were observed．Allergic contact dermatitis can be only a rare event in sensitive patients．Source：CIR Carcinogenicity：Not associated with carcinogenic，mutagenic and reprotoxic（CMR）chemicals．

## OTHER

Biodegradability（Environmental）：Biodegradation in water：Result：20．6\％，after 28 days．Conclusion：readily biodegradable（OECD Test Guideline 301D）（ECHA）
Ecological toxicity：Long－term toxicity to fish：NOEC $=1.5 \mathrm{mg} / \mathrm{L}$ after 35d（Danio rerio；OECD Test Guideline 210；2002）；Toxicity to aquatic algae：EC50 $48.28 \mathrm{mg} / \mathrm{L} ;$ NOEC $22.17 \mathrm{mg} / \mathrm{L}$
Desmodesmus subspicatus，72h，OECD Guideline 201，1995）（ECHA）（ECHA
LC50（Environmental）：Short－term toxicity to fish：LC50 $=60.2 \mathrm{mg} / \mathrm{L}$（Danio rerio；OECD Test Guideline 203；96h，1991）（ECHA）
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Polysorbate 20 (Emulsifying,Surfactant)
EU INCI: Polysorbate 20
CTFA INCI: Polysorbate 20
CNDA INCI: Polysorbate 20
CAS Number: 9005-64-5.
EINECS Number: 500-018-3.
Symbol: C 18 H 34 O 6 .(C2H4O)n.
IUPAC Name: Lauric acid gmole
解
Synonyms: Polyoxyethylene sorbitan monolaurate


Oxidising Properties: Not oxidising
$\mathrm{pH}: 6.0-7.5$ (potassium chloride solution $0,03 \%) 5.0-7.0\left(5 \% \mathrm{w} / \mathrm{w}\right.$ at $25^{\circ} \mathrm{C}$ )
Water Solubility: Soluble, $<0.2 \mathrm{mg} / \mathrm{L}$ at $20^{\circ} \mathrm{C}, \mathrm{pH}=6.3-7.9$
Boiling Point: $100{ }^{\circ} \mathrm{C}\left(212{ }^{\circ} \mathrm{F}\right)$
Density: $1.1050 \mathrm{~g} / \mathrm{cm3} 3,0.9850 \mathrm{~g} / \mathrm{cm} 3,1.095 \mathrm{~g} / \mathrm{cm}^{3}$ at $20^{\circ} \mathrm{C}$
Flammability: Non flammable
Flash Point: $101^{\circ} \mathrm{C}\left(230{ }^{\circ} \mathrm{F}\right)$ - closed cup; $>150^{\circ} \mathrm{C}\left(302^{\circ} \mathrm{F}\right)$ Open cup
Vapour Pressure: < $1.33 \mathrm{hPa}(<1.00 \mathrm{mmHg})$
Melting Point: approx. $15^{\circ} \mathrm{C}$
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Liquid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI.
REACH Annex XVII: Not listed in Annex XVII
REACH SVHC: Not included in SVHC list (Annex XIV).
Regulatory Controls: Not classified as hazardous to human health.
GHS Classification: Not classified
Reion. Europe Type • Cosmetic Restriction -
Region: UK Type : Cosmetic Restriction. None

## TOXICITY REVIEW

General Toxicity Review: The substance is commonly used as emulsifying and surfactant. Data derived from animal studies indicated that the substance is not irritating to eyes, not irritating to skin and non-sensitising. However, in the Magnusson-Kligman guinea pig maximization test there were moderate and strong skin responses. Several studies on rabbits showed that the substance is not eye irritating or causes minimal eye irritation. The substance shows low acute toxicity with LD50 at $36700 \mathrm{mg} / \mathrm{kg}$ bw in oral and above $3000 \mathrm{mg} / \mathrm{kg}$ bw in dermal route of exposure. The substance is not considered genotoxic. The available NOAEL (repeated dose toxicity) was determined to be around $5000 \mathrm{mg} / \mathrm{kg} / \mathrm{bw} / \mathrm{day}$ and therefore the substance is considered to have low systemic toxicity potential. Overall, the ingredient is not considered to be of toxicological concern when used as intended.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo to examine ocular irritation potential. Endpoint: The studies resulted in scoring the substance as non-irritating. Method: according to OECD Guideline 405; Species: rabbits; Report date: 1963; Source: ECHA.Several studies on rabbits showed that the substance is not eye irritating or causes minimal eye irritation. The substance was classified as minimal to mild irritating. (CIR)
LD50: LD50 (oral, rat) $36700 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 401 (Acute Oral practically non-toxic. LD50 (dermal, guinea pig) $>3000 \mathrm{mg} / \mathrm{kg}$ bw, Description. Acute toxicity studies via dermal route of exposure in guinea pigs (occlusive type of coverage) showed that the substance has low skin toxicity. (ECHA)
NOAEL Oral: NOAEL $5000 \mathrm{mg} / \mathrm{kg}$ bw. Study type: Developmental toxicity / teratogenicity. Endpoint: Developmental toxicity. Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study). Species: Rat. Report date: 1992. MoS was calculated based on this data.
ADME (Absorption, Distribution, Metabolism, Excretion): Estimated dermal permeability coefficient (Kp) of 0.000826 ( 1 EO ) and $2.18 \mathrm{e}-006$ ( 7 EO ) $\mathrm{cm} / \mathrm{hr}$ and a dermal absoprtion rate of 0.00034


OECD Guideline 404 and EU Method B. 4 semiocclusive coverage; Species: rabbits; Report date: 2012; Source: ECHA. The substance was tested to find evidence of primary irritation on rabbits. There was no signs of irritation observed. (CIR)
Skin Sensitisation: The substance was tested in vivo (Non-LLNA) to examine skin sensitising potential. Endpoint: The substance was found to be non-sensitising. Method: OECD Guideline 406, EU Method B.6, EPA OPPTS 870.2600; Species: guinea pig; Report date: 2012; Source: ECHA.The Magnusson-Kligman guinea pig maximization test was conducted. There were moderate and
Allergens HRIPT: HRIPT of shaving preparation with $2.4 \%$ Polysorbate 20 was conducted on the 101 subjects. There was minimal irritation and no sensitisation observed. In other studies of different products containing Polysorbate 20 there was the same results observed. (CIR)
Allergens MaximisationTest: Bubble bath with 6.0 \% Polysorbate 20 was tested in Kligman maximization test. The product was found not sensitising. (CIR)
Allergens Patch Test: The substance underwent Schwartz-Peck patch test (open and closed 48h patches, repeated after 14 days) in a form of shaving product $2.4 \%$ of Polysorbate 20 . No skin reactions such as irritation and sensitisation were reported. (CIR) When bubble bath 0.3 Polysorbate 20 ( $5 \%$ aqueous dilution of product containing $6 \%$ ) was tested on 103 subjects, there was minimal irritation in 3 subjects and no sensitization observed (CIR). Bubble bath with: $0.03 \%$ Polysorbate 20 ( $0.5 \%$ aqueous dilution of product containing $6 \%$ ) and $6.0 \%$ Polysorbate 20 was tested Carcinogenicity: Not a CMR material.

OTHER
Biodegradability (Environmental): Biodegradation in water. Results: 62.5\% (O2 consumption) in 28 days. Conclusion: Readily biodegradable.
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Isopropyl Myristate (Binding,Emollient,Masking,Perfuming)
EU INCI: Isopropyl Myristate.
CTFA INCI: Isopropyl Myristate
CNDA INCI: Isopropyl Myristate.
CAS Number: 110-27-0.
EINECS Number: 203-751-4
Symbol: C17H34O2.
Molecular Weight: 270.45
Synonyms: Isopropyl tetradecanoate; Tetradecanoic acid 1-methylethyl ester
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Viscosity: $3.932 \mathrm{~mm}^{2} / \mathrm{s}$ at $40^{\circ} \mathrm{C}$
Water Solubility: $0.05 \mathrm{mg} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$ (experimental); $0.00473 \mathrm{mg} / \mathrm{L}$ at $25^{\circ} \mathrm{C}$ (QSAR calculation)
Partial Coefficient logPow: $\log$ Kow $=7.71$
Boiling Point: $193{ }^{\circ} \mathrm{C}$ at 20 mmHg (decomposition at normal pressure probable)
Density: $853.2 \mathrm{~kg} / \mathrm{m}^{3}$ at $20^{\circ} \mathrm{C}$
Flammability: Non flammable
Flash Point: 150-168 ${ }^{\circ} \mathrm{C}$
Vapour Pressure: 0.01246 Pa at $25^{\circ} \mathrm{C}$
Physical State: Liquid.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI.
REACH Annex XVII: Not listed in the Annex XVII
REACH SVHC: Not included in SVHC list (Annex XIV).
GHS Classification: Not classified as per GHS
Region : Europe Type : Cosmetic Restriction : None
Region: UK Type : Cosmetic Restriction: None
TOXICITY REVIEW
General Toxicity Review: The substance is not associated with the skin irritation and eye irritation. When it comes to local toxicity the chemical does not induce or elicit skin allergy. It shows low acute toxicity with LD50 above $2000 \mathrm{mg} / \mathrm{kg}$ bw in oral exposure. It also has low chronic toxicity where oral exposure is considered. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products.

## TOXICOLOGICAL PROFILE

AcuteToxicology: DNEL/DMEL (General population)Acute - systemic effects, dermal no DN(M)EL derivation: assessment of hazard sufficiently covered by derivation of therespective DNEL for long-term exposure.Acute - systemic effects, inhalation no DN(M)EL derivation. assessment of hazard sufficiently covered by derivation of therespective DNEL for long-term exposure.Acute systemic effects, oral no DN(M)EL derivation: assessment of hazard sufficiently covered by derivation of therespective DNEL for long-term exposure.Acute - local effects, dermal no DN(M)EL derivation: No hazard identified.Acute - local effects, inhalation no DN(M)EL derivation: No hazard identified
Chronic Toxicity: Long-term - systemic effects, dermal $16 \mathrm{mg} / \mathrm{kg}$ bodyweight/day with assessment factor: 600 (inter species factor 2.5 , allometricscaling factor 4 , intra species factor 10 , exposure duration factor 6; dermal absorption of $10 \%$ was considered)Long-term - local effects, dermal no DN(M)EL derivation: No hazard identified.Long-term - local effects, inhalation no DN(M)EL derivation: No hazard identified
Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as not irritating (ECHA)
Genotoxicity: Negative in the in vitro gene mutation study in bacteria (S. typhimurium TA 1535, TA 1537, TA 98 and TA 100, E. coli WP2 uvr A) (ECHA)
(oral, rat) $>2000 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 401 (Acute Oral Toxicity); Description: Acute toxicity studies via oral route of administration in rats showed slight toxicity of the解
NOAEL Oral: NOAEL $5500 \mathrm{mg} / \mathrm{kg}$ bw/day; Study type: Repeated dose toxicity; Endpoint:sub-chronic toxicity: oral; Species:rat; Guideline:OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents); Publication date: 2004; Source: ECHA, MoS was calculated based on this data
Reproductive Toxicology: NOAEL $5500 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: Repeated dose toxicity. Endpoints: sub-chronic toxicity. Route of administration: oral. Species: rat. Methods: 1993 FDA draft "Redbook II" guidelines (Toxicological Principles for the Safety Assessment of Direct Food Additives and Color Additives Used in Food). Report date: 2004. Source: ECHA. MoS was calculated ased on this data
Skin Irritation: In vivo studies on rabbits with semiocclusive coverage showed that the substance was found to be not irritating and not corrosive (ECHA)
Skin Sensitisation: Non-LLNA in vivo examinations were conducted, using guinea pig maximisation test, to find evidence for skin sensitisation. The test results showed that the chemical is nonsensitising (ECHA)
Carcinogenicity: Not considered to be a CMR material.

## OTHER

Biodegradability (Environmental): Biodegradation in water: screening test. Result: 91.4\% degradation after 28 days. Conclusion: readily biodegradable. (ECHA)
LC50 (Environmental): Fish: LC50 Lepomis macrochirus > $1000 \mathrm{mg} / \mathrm{L}$ - 96h; Algae: ErL50 Skeletonema costatum $281.4 \mathrm{mg} / \mathrm{L}$ - 72h; ISO 10253(ECHA)
eurofins
Job No
NCH1140

Cocoa Hand \＆Body Butter 2000mg（2022－753－5050）（variant）CPSR EU／UK passed under condition

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Carbomer（Emulsion Stabilising，Gel Forming，Viscosity Controlling）
EU INCI：Carbomer
CTFA INCI：Carbomer
CNDA INCI：Carbomer
Chinese：卡波姆．
CAS Number： $9007-20-9(9003-01-4) 76050-42-5(9062-04-8) 9007-16-3(9007-17-4)$
EINECS Number：Polymer．
Description：Carbomer is a large polymeric chemical composed of acrylic acid monomers．Some grades of Carbomer may contain Benzene
Synonyms：2－Propenoic acid，polymer with 2，2－bis（hydroxymethyl）propane－1，3－diol 2－propenyl ether，Poly（acrylic acid），
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Oxidising Properties：Non oxidising
$\mathrm{pH}:>=3.59-<=3.63$
Water Solubility： $546 \mathrm{~g} / \mathrm{L}$
Boiling Point： $193.9^{\circ} \mathrm{C}$
Particle Size：The non－solid or granular form does not require the particle size distribution study
Colour：Colourless
Density： 1.206 at 20 deg．C
Vapour Pressure 357
LogP Log Kow：0．27
Melting Point：$-60^{\circ} \mathrm{C}$
Microbiological stability：Not susceptible to microbiological contamination
Physical State：Liquid．

## REGULATORY REQUIREMENTS

CLP Regulation（EC）No 1272／2008：Not classified as per CLP，Annex VI．
REACH Annex XVII：Not listed in the Annex XVII．
REACH SVHC：Not included in SVHC list（Annex XIV）
Regulatory Controls：Raw Material CARBOPOL® 940 Polymer contains less than $0.5 \%$ Benzene．It is recommended to use Benzene free cosmetic grades materials only，for example Carbopol $®$ GHS Classification：H302．
：Harmful if swallowed．H318：Causes serious eye damage．H335：May cause respiratory irritation．H400：Very toxic to aquatic life．H411：Toxic to aquatic life with long asting effects．
Region：UK Type ：Cosmetic Restriction：Synthetic water－insoluble polymers of $=<5 \mathrm{~mm}$ are prohibited in the UK as per the requirements of Environmental Protection（Microbeads）（England） Regulations 2017.

## TOXICITY REVIEW

General Toxicity Review：In vivo studies resulted in scoring the chemical as causing serious eye irritation and corrosive to eyes and not irritating to skin．Non－LLNA in vivo study indicated that the substance is not sensitising．It shows low acute toxicity potential above $1500 \mathrm{mg} / \mathrm{kg}$ bw and above $2000 \mathrm{mg} / \mathrm{kg}$ bw via oral and dermal exposure respectively．Repeated dose toxicity study indicated NOAEL at $40 \mathrm{mg} / \mathrm{kg}$ bw／day（male）and $375 \mathrm{mg} / \mathrm{kg}$ bw／day（female）．The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects．Overall，the ingredient is not considered to be of toxicological concern when used as intended．

TOXICOLOGICAL PROFILE
Eye Irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted that the substance is corrosive and causes serious eye irritation．（ECHA） Genotoxicity：In vitro：negative（Chinese hamster Ovary（CHO））In vivo：negative（rat）．（ECHA）
LD50：LD50（oral，rat） $1500 \mathrm{mg} / \mathrm{kg}$ bw；OECD Guideline 401 （Acute Oral Toxicity）；Description：Acute toxicity studies via oral route of administration in rats demonstrated moderate toxicity of the substance．LD50（dermal，rabbit）＞ $2000 \mathrm{mg} / \mathrm{kg} \mathrm{bw}$ ；OECD Guideline 402 （Acute Dermal Toxicity）；Description：Acute toxicity studies via dermal route of exposure in rabbits（occlusive type of coverage）showed that the substance has low skin toxicity．（ECHA）
Mutagenicity：No evidence of mutagenicity． NOAEL Oral：NOAEL（male rats） $40 \mathrm{mg} / \mathrm{kg}$ bw／day；NOAEL（female rats） $375 \mathrm{mg} / \mathrm{kg}$ bw／day．Study type：Repeated dose toxicity．Endpoints：chronic toxicity．Route of administration：oral．Species： rats．Methods：OECD Guideline 452 （Chronic Toxicity Studies）．Report date：1987．Source：ECHA．MoS was calculated on this data
Skin Sensitisation：Non－LLNA in vivo examinations were conducted，using guinea pig testing，to find evidence for skin sensitisation．The test results showed that the substance is non－sensitising．
（ECHA）
Carcinogenicity：Not associated with carcinogenic，mutagenic and reprotoxic（CMR）chemicals．

## OTHER

Biodegradability（Environmental）：Biodegradation in water．Results： $87.4 \%$ degradation（O2 consumption）after 28 days．Conclusion：readily biodegradable．（OECD Guideline 301 F （Ready Biodegradability：Manometric Respirometry Test）（ECHA）
Ecological toxicity：Toxic to aquatic life with long lasting effects．
LC50（Environmental）：LC50 $27 \mathrm{mg} / \mathrm{L}$ ，Oncorhynchus mykiss， 96 h （read across）；EC50 $0.13 \mathrm{mg} / \mathrm{L}$ ，Desmodesmus subspicatus， 72 h ；EC10 or NOEC $0.03 \mathrm{mg} / \mathrm{L}$ ，Desmodesmus subspicatus， 72 h （read across）（ECHA）
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Squalane (Emollient,Hair Conditioning,Refatting,Skin Conditioning)
EU INCI: Squalane.
CTFA INCI: Squalane.
CNDA INCI: Squalane.
CAS Number: 111-01-3
EINECS Number: 203-825-6.
Symbol: C30H62.
Molecular Weight: 422.81
Description: Squalane is a vegetable squalane obtained by hydrogenation of olive squalene.
-Hexamethyltetracosane

HYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Viscosity: 18.8 dynamic viscosity (in mPa s ) at $40^{\circ} \mathrm{C}$; 48.2 dynamic viscosity (in mPa s ) at $20^{\circ} \mathrm{C}$
Water Solubility: $0 \mathrm{mg} / \mathrm{L}$ at $25^{\circ} \mathrm{C}$
Boiling Point: $176^{\circ} \mathrm{C}$ at 0.07 hPa
Colour: $0.8227 \pm 0.0001 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
Density: $0.81 \mathrm{~g} / \mathrm{mL}$ at $25^{\circ} \mathrm{C}$ (relative)
lash Point. $215{ }^{\circ} \pm 1$

Melting Point: $>=0.28-<=0.38^{\circ} \mathrm{C}$
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Liquid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV)
GHS Classification: Not classified as per GHS
Region - Euration. No classified as per GHS.
Region : UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: Squalane is a well-known cosmetic substance. Squalane is a vegetable squalane obtained by hydrogenation of olive squalene. Data derived from animal studies demonstrate that the substance is not irritating to the skin and eyes. Moreover, it is not sensitising to the skin. It shows low acute toxicity with LD50 above > 1 000 mg/kg bw in oral route of exposure. It has low chronic toxicity where oral systematic exposure is considered. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is considered to be safe when used as intended.

## TOXICOLOGICAL PROFILE

Endocrine Effects: No endocrine effects are known from using this material in cosmetics
Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The substance was found to be not irritating (ECHA). Undiluted squalane did not produce ritation or damage in the eyes of rabbits, regardless of whether the eyes had been washed after instillation (CIR).
 D50: LD50 (oral, rat) $>1000 \mathrm{mg} / \mathrm{kg}$ bw; No mortality was observed during the study. Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the

NOAEL Oral: NOAEL ca. $10000 \mathrm{mg} / \mathrm{kg}$ bw/day (nominal). Study type: Repeated dose toxicity. Endpoint: sub-chronic toxicity: oral. Route of administration: oral. Species: rat. Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)Report date: 2013.,Source: ECHA. MoS was calculated based on this data.
Skin Irritation: In vivo studies on rabbits with semiocclusive type of coverage. The substance was assessed as not irritating to the skin (ECHA). Undiluted squalane ( 0.5 ml) did not produce irritation in three rabbits when applied to intact and abraded skin for 24 hours (CIR).
Skin Sensitisation: The substance was tested in vivo to examine skin sensitising potential. The test results showed that the chemical is not sensitising (ECHA). Twenty subjects were patch-tested with repeated 48 -hour applications made three weeks apart with $8.0 \%$ w/w squalane in a lip emollient. Nineteen responses to both patches were negative; one response was not reported (CIR)解 Allergens LINAEC3. LINA in vivo examinations were conducted using mouse testing to find evidence for skin sensitisation. Endpoint. The substance was found to be not
mas found to be not sensitising. Method: Carcinogenicity: Not a CMR material.

## OTHER

Biodegradability (Environmental): Biodegradation in water. Results: $64.7 \%$ degradation (CO2 evolution) after 28 days. Conclusion: readily biodegradable, but failing 10-day window. (OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)) (ECHA)
C50 (Environmental): LC0 Danio rerio, > $100 \mathrm{mg} / \mathrm{L}, 96 \mathrm{~h}$ (OECD Guideline 203 (Fish, Acute Toxicity Test)); NOEC Raphidocelis subcapitata > $100 \mathrm{mg} / \mathrm{L}, 72 \mathrm{~h}$ (OECD Guideline 201 (Alga, Growth nhibition Test)) (ECHA)

Product Name

| Job No | NCH1140 |
| :--- | :--- |
| Report No | $\mathbf{0 0 8 2 3 3}$ |
| Issue Date | $23 / 01 / 2023$ |

Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Camellia Kissi Seed Oil (Skin Conditioning,Emollient)
EU INCI: Camellia Kissi Seed Oil
CAS Number: 94333-92-3
EINECS Number: 305-071-
Description: Camellia Kissi Seed Oil is the fixed oil derived from the seeds of Camellia kissi, Theaceae
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Physical State: Oil.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in Annex XVII
REACH SVHC: Not included in SVHC list (Annex XIV).
GHS Classification: Not classified as per GHS.
Region: Europe Type: Cosmetic Restriction : None
Region: UK Type : Cosmetic Restriction: None
TOXICITY REVIEW
General Toxicity Review: There is limited toxicological information according to the toxicological safety of this substance. There is no evidence of eye and skin irritation potential as well as skin sensitisation potential. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used as intended.

TOXICOLOGICAL PROFILE
Eye Irritation: Based on the available toxicological data there is no evidence of eye irritation or corrosivity potential.
NOAEL Oral: The NOAELs were not available in order to review however based on a history of safe use in consumer products this material is considered safe when used as intended. In conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
Skin Irritation: Based on the available toxicological data there is no evidence of skin irritation potential.
Skin Sensitisation: Based on the available toxicological data there is no evidence of skin allergy potential
eurofins

# Cocoa Hand \＆Body Butter 2000mg（2022－753－5050）（variant）CPSR EU／UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Sodium Hydroxide（Buffering，Denaturant）
EU INCI：Sodium Hydroxide
CTFA INCI：Sodium Hydroxide
CNDA INCI：Sodium Hydroxide．
Chinese：氢氧化钠．
CAS Number：1310－73－2
EINECS Number：215－185－5．
Symbol： NaOH
Molecular Weight： $40.00 \mathrm{~g} / \mathrm{mol}$
Description：At room temperature sodium hydroxide is a white orthorhombic crystal and is hygroscopic．It has no specific odour and it is an inorganic substance
IUPAC Name：Sodium hydr
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour：Odourless
Oxidising Properties：Non oxidising
$\mathrm{pH}:>13$
Water Solubility： $100 \mathrm{~g} / 100 \mathrm{~g} \mathrm{H} 2 \mathrm{O}$ at $25^{\circ} \mathrm{C}$
Boiling Point： $1388^{\circ} \mathrm{C}$ at 101325 Pa
Colour：White
Density： $2.13 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
Vapour Pressure：＜ 0 hPa
Melting Point： 318.4 C at 101.3 kPa
Physical State：Crystalline．

## REGULATORY REQUIREMENTS

Labelling Requirements：a）Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children b）1）Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children 2）For professional use only Avoid contact with eyes Can cause blindness c）Keep out of reach of children Avoid contact with eyes．
Specific Conc．Limits，M－factors and ATEs：Skin Corr． 1 （H314）：C $\geq 5 \%$ ；Skin Corr． 1 B （H314） $2 \% \leq \mathrm{C}<5 \%$ ；Skin Irrit． 2 （H315）： $0,5 \% \leq \mathrm{C}<2 \%$ ；Eye Irrit． 2 （H319）： $0,5 \% \leq \mathrm{C}<2 \%$
LE Regulation（EC）：No listed in the Annex XVII Skin Corr．1A，H31
REACH SVHC．Not included in SVHC list（Annex
Regulatory Controls：Restriction（a）Nail cuticle solvent $5 \%$（b）Hair straightener：General use $2 \%$ Professional use $4,5 \%$（c）pH adjuster for depilatories $\mathrm{pH}<12,7$（d）Other uses as pH adjuster pH ＜ 11 Wording of conditions of use and warnings：（a）Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children（b）1．Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children 2．For professional use only Avoid contact with eyes Can cause blindness（c）Keep out of reach of children Avoid contact with eyes
GHS Classification：H290：May be corrosive to metals．H314：Causes severe skin burns and eye damage．H315：Causes skin irritation．H319：Causes serious eye irritation．
Region ：Europe Type ：Cosmetic Restriction ：a）Nail cuticle solvent $5 \%$ b）Hair straightener general use $2 \%$ Professional use 4，5\％c） pH adjuster for depilatories pH＜12，7 d）Other uses as pH adjuster $\mathrm{pH}<11$ Label Review ：a）Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children b）1）Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children 2）For professional use only Avoid contact with eyes Can cause blindness c）Keep out of reach of children Avoid contact with eyes
Region：UK Type ：Cosmetic Restriction ：a）Nail cuticle solvent $5 \%$ b）Hair straightener general use $2 \%$ Professional use $4,5 \% \mathrm{c}$ ） pH adjuster for depilatories $\mathrm{pH}<12,7 \mathrm{~d}$ ）Other uses as pH adjuster $\mathrm{pH}<11$ Label Review ：a）Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children b）1）Contains alkali Avoid contact with eyes Can cause blindness Keep out of reach of children 2）For professional use only Avoid contact with eyes Can cause blindness c）Keep out of reach of children Avoid contact with eyes

TOXICITY REVIEW
General Toxicity Review：Sodium Hydroxide is commonly used as buffering and denaturant．In vivo studies（animal data）have shown that the substance causes severe eye damage and is irritating NOAEL was determined at $1000 \mathrm{mg} / \mathrm{kg}$ bw／day．The ingredient is not considered to be of toxicological concern when used as intended．

## TOXICOLOGICAL PROFILE

Eye Irritation：The substance was tested in vivo to examine ocular irritation potential．Result：corneal opacity and conjunctivitis was observed；Endpoint：The studies resulted in scoring the substance as irritating，sodium hydroxide can hydrolyze protein and lead to severe eye damage．Method：according to OECD Guideline 405；Species：rabbits；Report date：1992；Source：ECHA． Acute eye irritation／corrosion study in 6 New Zealand white rabbits was carried on． $2 \%$ caused moderate corneal injury（score $=2.0$ out of 4 ）；severe conjunctival irritation was observed between 4 and 96 h （CIR）．
enotoxicity：In vitro and the in vivo genetic toxicity test indicated no evidence for a mutagenic activity．In vitro：negative（S．typhimurium，other：TA 1535，TA 1537，TA 1538，TA 98，TA 100）．In vivo：negative（mouse）．（ECHA）
D50：LD50 nalation of sodium hydroxide dust，mist，or aerosol may cause irritation of the mucous membranes of the nose，throat，and respiratory tract（CDC．GOV），
and
NOAEL Oral：NOAEL $1000 \mathrm{mg} / \mathrm{kg}$ bw／day（read－across to magnesium hydroxide）．Study type；Reproductive and developmental toxicity．Endpoints；parental systemic effects，parental reproductive effects，and offspring effects in one generation rat study（CIR）
Reproductive Toxicology：The substance is not expected to reach the foetus nor reach male and female reproductive organs．（ECHA）
Skin Irritation：The substance was tested in vitro／ex vivo to examine ocular irritation potential．Endpoint：The substance was found to be irritating to the skin．Method：OECD Guideline 435 （In Vitro Membrane Barrier Test Method for Skin Corrosion）；Species：corrositex assay；Report date：2003；Source：ECHA．Sodium Hydroxide was irritating／corrosive in a concentration－dependent manner in rat，rabbit，and pig studies．In humans，Sodium Hydroxide was irritating at concentrations as low as $0.5 \%$ ．Because of the large number of studies that include Sodium Hydroxide as a positive Kkin Sensitis
（The substance was tested in vivo（Non－LLNA）to examine skin sensitising potential．Endpoint：The substance was found to be non－sensitising．Method：Patch testing for 24 （hest

Allergens HRIPT：Sodium Hydroxide was not sensitising in a HRIPT study（concentration up to $1 \%$ ）．However，irritation was observed．（CIR）
Allergens Patch Test：Patch test of $0.5 \%$ Sodium Hydroxide was conducted on 30 subjects．It was found that the substance is irritating to the skin．Maximum exposure time was limited to 1 h ．（CIR） Carcinogenicity：Not associated with carcinogenic，mutagenic and reprotoxic（CMR）chemicals．

## OTHER

UN number（Transport）： 1823
Detergent Class：Soap
（he REACH Regulation，the study does not need to be conducted if the substance has a low potential for bioaccumulation．Moreover，considering its igh water solubility， NaOH is not expected to bioconcentrate in organisms（ECHA）．
（
LC50（Environmental）：Fish：various species，LC50 35－189 mg／l－96h ；Aquatic invertebrates：Crustaceans，Ceriodaphnia sp．，EC50， $48 \mathrm{~h}, 40.4 \mathrm{mg} / \mathrm{l}$（ECHA）
eurofins

# Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

ocopheryl Acetate (Antioxidant,Skin Conditioning)
INCI: Tocopheryl Acetate.
TFA INCI: Tocopheryl Acetate.
CNDA INCI: Tocopheryl Acetate.
CAS Number: $7695-91-2(58-95-7)$.
EINECS Number: 231-710-0 / 200-405-4
Symbol: C31H52O3
Mescription: Vitamin E.
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Almost odourless
Oxidising Properties: No oxidising.
Viscosity: $5706 \mathrm{~mm}^{2} / \mathrm{s}(5458 \mathrm{mPa} \cdot \mathrm{s})$ at $20^{\circ} \mathrm{C}$
Water Solubility: $<0,8 \mathrm{mg} / \mathrm{l}$ at $20^{\circ} \mathrm{C}$
Boiling Point: $184^{\circ} \mathrm{C}$ (Expl.)
Colour: Colourless to amber
Density: $0.9 \pm 0.1 \mathrm{~g} / \mathrm{cm} 3$ (Cal.)
lammability: Non flammable upon ignition at $225.5^{\circ} \mathrm{C}$.
Vapour Pressure 1.4 mbar at 240 C
LogP Log Kow: 12.26 at 25C
Melting Point: $-28^{\circ} \mathrm{C}$ (Expl.)
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Liquid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Listed in Annex XVII: Exemptions from the obligation to register in accordance with Article 2(7)(a).
REACH SVHC: Not included in SVHC list (Annex XIV).
GHS Classification: Not classified as per GHS.
Region: UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

( Tocopheryl Acetate is commonly used as antioxidant and skin conditioning agent. It is reported to cause contact dermatitis. Studies shown that it is not irritating to eyes and skin. It shows low acute toxicity with LD50 above $10000 \mathrm{mg} / \mathrm{kg}$ bw in oral exposure and above $3000 \mathrm{mg} / \mathrm{kg}$ bw in dermal exposure. Repeated dose toxicity study indicated the NOAEL for oxicity to reproduction via oral route of exposure at $800 \mathrm{mg} / \mathrm{kg}$ bw/day. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used as intended.

## TOXICOLOGICAL PROFILE

Endocrine Effects: No endocrine effects are known from using this material in cosmetics.
Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The undiluted test substance was instilled into the right eye of each of three rabbits. Slight irritation was noted at $1-48 \mathrm{~h}$; the eyes were normal at 72 h . The studies resulted in scoring the substance as non-irritating (ECHA). Undiluted tocopheryl acetate was instilled into the conjunctival sac of 3 Vienna white rabbits. The eyes were not rinsed. Slight irritation were observed. The results shows that tocopheryl acetate was not irritating to rabbit eyes in 1 study, but it produced weak--moderate conjunctival irritation in another study (CIR)
Genotoxicity: In vitro: negative (Chinese hamster ovary AS52 cells), In vivo: negative (mouse) (ECHA)
Inhalation: Vitamin E acetate may be responsible for vaping - related death (FDA Preliminary Lab Analysis, Feb 2020 )
LD50: LD50 (oral, rat) $>10000 \mathrm{mg} / \mathrm{kg}$ bw; Guideline:OECD Guideline 401 (Acute Oral Toxicity); Acute toxicity studies via oral route of administration in rats demonstrated that the substance is practically non toxic. ; LD50 (dermal, rat) > $3000 \mathrm{mg} / \mathrm{kg} \mathrm{bw}$; Guideline:OECD Guideline 402 (Acute Dermal Toxicity); Acute toxicity via dermal route in rats showed slight toxicity of the substance (ECHA)
Mutagenicity: No evidence of mutagenic potential
NOAEL Oral: NOAEL $800 \mathrm{mg} / \mathrm{kg}$ bw. Study type Toxicity to reproduction (one-generation reproductive toxicity). Method OECD Guideline 415 (Publication date 1977 ). (ECHA) MoS was calculated based on this data; NOAEL $2000 \mathrm{mg} / \mathrm{kg}$ bw. Study type Carcinogenicity (Published date 1978); Study type; Repeated dose toxicity. Endpoints; chronic toxicity. Route of administration: oral. CD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies). Report date; 1978 Source; ECHA
俍 the substance is not irritating (ECHA) $0.5 \mathrm{mlocclusive} \mathrm{coverage} \mathrm{was} \mathrm{conducted}$.Three Vienna White rabbits were applied the undiluted test substance for 4 hours. The test results showed A). 0.5 mL undiluted substance was applied to a shaved area of 3 Vienna white rabbits. No erythema or edema was observed. In conclusion, the substance

Skin Sensitisation: When tested on guinea pig it did not exhibit photoallergenic potential under the study conditions. Reported to cause contact dermatitis (http://contactallergy. com/contact_allergy_009.htm) however the ester of acetic acid and tocopherol (vitamin $E$ ) is rather rarely associated with skin allergy or sensitisation in majority of population by comparison with Tocopherol. 0.5 mL undiluted substance was applied to a shaved area of 3 Vienna white rabbits. No erythema or edema was observed. In conclusion, the substance is not classified as skin sensitising (CIR).
Allergens HRIPT: Lotion containing $0.1 \%$ of Tocopheryl Acetate was used in a RIPT study which included 110 volunteers. The substance was applied on the back skin 3 times per weeks for 3 weeks. After rest time challenge patch was applied to the previously untreated area. No irritation or sensitisation were observed during the study. In a different study $100 \%$ of Tocopheryl acetate was used. After 10 applications in the induction phase and challenge phase all the sensitisation readings were negative (203 subjects). Mild irritation was observed in some of the participants. (IR)
Allergens Patch Test: Occlusive patch test of $100 \%$ dl-a-Tocopheryl Acetate and $1 \%, 5 \%, 20 \%$, and $50 \%$ Tocopheryl Acetate in petrolatum on 8 subjects was conducted. The mean irritation dices, on a scale of 0 to 4 , was 0 for $100 \%$ Tocopheryl Acetate and 0.312 dor $50 \%$ Tocopheryl Acetate. (CIR)
Carcinogenicity: Not associated with carcinogenic, mutagenic and reprotoxic (CMR) chemicals

## OTHER

Biodegradability (Environmental): Biodegradation in water. Result 17\% degradation after 28 days of testing. Conclusion: moderately/partly biodegradable (ECHA)
LC50 (Environmental): Fish: LC50 Rainbow trout (Oncorhynchus mykiss) > $11 \mathrm{mg} / \mathrm{l}-96 \mathrm{~h}$ (OECD Guideline 203); LC50 Leuciscus idusa >10000 mg/l -96 h (BASF AG, 1988 ) ; Algae: EC50 Selenastrum capricornutum > $27.8 \mathrm{mg} / \mathrm{l}-72 \mathrm{~h}$ (OECD Guideline 201) (ECHA)

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Aloe Barbadensis Leaf Juice Powder (Skin Conditioning)
EU INCI: Aloe Barbadensis Leaf Juice Powder
CTFA INCI: Aloe Barbadensis Leaf Juice Powder.
CNDA INCI: Aloe Barbadensis Leaf Juice Powder
CAS Number: 85507-69-3(94349-62-9).
EINECS Number: 287-390-8 / 305-181-2
Description: Aloe Barbadensis Leaf Juice Powder is the powder obtained from the dried juice leaves of the aloe, Aloe barbadensis, Liliaceae
Synonyms: Aloe Barbadensis Leaf Juice Powder; Aloe Vera Leaf Juice Powder; Aloe vera extracts; Aloe vera powder, Freeze Dried Aloe Vera Juice Powder 200X
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
pH: 3.5-5.0
Specific Gravity: 0.997-1.004
Water Solubility: Insoluble in cold water.
Boiling Point: $310^{\circ} \mathrm{C}\left(590^{\circ} \mathrm{F}\right)$
Colour: White to beige
Flammability: May be combustible at high temperature
Flash Point: Closed cup: Higher than $93.3^{\circ} \mathrm{C}\left(200^{\circ} \mathrm{F}\right)$
Microbiological stability: Total plate count $<10 \mathrm{cfu} / \mathrm{g}$, Yeast and mould $<10 \mathrm{cfu} / \mathrm{g}$, No pathogens present
Physical State: Powder
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI.
REACH Annex XVII: Not listed in the Annex XVII
REACH SVHC: Not included in SVHC list (Annex XIV).
Regulatory Controls: According to the PubMed publication, Int J Toxicol, 2007 (quote) "The Cosmetic Ingredient Review (CIR) Expert Panel advised the industry that the total polychlorobiphenyl (PCB)/pesticide contamination of any plant-derived cosmetic ingredient should be limited to not more than 40 ppm, with not more than 10 ppm for any specific residue and that limits were appropriate for the following impurities: arsenic ( $3 \mathrm{mg} / \mathrm{kg}$ maximum), heavy metals ( $20 \mathrm{mg} / \mathrm{kg}$ maximum), and lead ( $5 \mathrm{mg} / \mathrm{kg}$ maximum) it is noted that the full composition of the fragrance and technical data haven't been disclosed and therefore the manufacture (responsible person) must ensure that the fragrance does not contain any materials which are prohibited or restricted for the intended use.The presence of the fragrance substances (allergens) must be indicated in the list of ingredients referred to in Article 19(1)g when its concentration exceeds: $0.001 \%$ in leave-on products $0.01 \%$ in rinse-off products (EC No 1223/2009).
HS Classification: Not classified as per GHS
Region : UK Type : Cosmetic Restriction. None

## TOXICITY REVIEW

General Toxicity Review: The Aloe Barbadensis Leaf Juice Powder is commonly used as skin conditioning. There is no evidence of skin irritation or sensitisation potential. The material is in powder form and therefore may cause mechanical eye irritation. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used as intended.

## TOXICOLOGICAL PROFILE

Eye Irritation: May cause a mechanical eye irritation - expert judgement.
Inhalation: May cause upper respiratory tract irritation - expert judgement
based on a history of safe use, this chemical material is considered safe for use in cosmetics. The chemical is unlikely to produce systemic toxicity following skin contact. In conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
Skin Sensitisation: Based on the available toxicological data there is no evide of skin irritation potential.

Product Name

| Job No | NCH1140 |
| :--- | :--- |
| Report No | $\mathbf{0 0 8 2 3 3}$ |
| Issue Date | $\mathbf{2 3 / 0 1 / 2 0 2 3}$ |

Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Iso-squalane (Not Reported)
EU INCI: Isosqualane.
CTFA INCI: Isosqualane.
CAS Number: 1350472-07-9
EINECS Number:
Symbol: C30H62
Molecular Weight: 422.813.

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Physical State: Liquid.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI.
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV)
GHS Classification: Not classified as per GHS
Region : Europe Type: Cosmetic Restriction: None
TOXICITY REVIEW
General Toxicity Review: There is limited toxicological data for the Isosqualane. However, there is no evidence of potential irritating properties for skin and eyes. The substance is not expected to cause skin sensitisation. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products

## TOXICOLOGICAL PROFILE

Eye irritation: Based on the available toxicological data there is no evidence of eye irritation or corrosivity potential
NOAEL Oral: The NOAELs were not available in order to review however based on a history of safe use in consumer products this material is considered safe when used as intended. In conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
绪
Carcinogenicity: Not associated with carcinogenic, mutagenic and reprotoxic (CMR) chemicals

Product Name

| Job No | NCH1140 |
| :--- | :--- |
| Report No | $\mathbf{0 0 8 2 3 3}$ |
| Issue Date | $23 / 01 / 2023$ |

Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

C30 Hydrocarbons (Not Reported)
CAS Number: -
EINECS Number:
Description: Can be generated by bio-based farnesene derived from fermantation of renewable carbons.
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC
GHS Classification: Not classified as per GHS
Region : Europe Type : Cosmetic Restriction : None
Region: UK Type : Cosmetic Restriction : None
TOXICITY REVIEW
General Toxicity Review: There is limited toxicological information. According to the toxicological safety of the substance there is no evidence on eye, skin irritation or sensitisation potential. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is considered to be safe when used as intended.

TOXICOLOGICAL PROFILE
Eye Irritation: Based on the available toxicological data there is no evidence of eye irritation or corrosivity potential.
NOAEL Oral: The NOAELs were not available in order to review however based on a history of safe use in consumer products this material is considered safe when used as intended. In conclusion, at the given concentration in the final product, the ingredient is not considered to be of toxicological concern when used as intended.
Skin Irritation: Based on the available toxicological data there is no evidence of skin irritation potential.
Skin Sensitisation: Based on the available toxicological data there is no evidence of skin allergy potential
Carcinogenicity: Not associated with carcinogenic, mutagenic and reprotoxic (CMR) chemicals.
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Cyclohexane (Solvent)
EU INCI: Cyclohexane.
CTFA INCI: Cyclohexane
CAS Number: 110-82-7.
EINECS Number: 203-806-2.
Symbol: C6H12.
Molecular Weight: 84.160.
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Characteristic sweet, chloroform-like odour
Viscosity: $0.894 \mathrm{mPa} \cdot \mathrm{s}$ (dynamic) at $20^{\circ} \mathrm{C}$
Water Solubility: $52 \mathrm{mg} / \mathrm{L}$ at $23.5^{\circ} \mathrm{C}$
Partial Coefficient logPow: 3.44 at $20^{\circ} \mathrm{C}$
Boiling Point: $80.7^{\circ} \mathrm{C}$ at 101325 Pa
Particle Size: The non-solid or granular form does not require the particle size distribution study.
Colour: Colourless
Density: $0.7739 \mathrm{~g} . \mathrm{cm}-3$ at $25^{\circ} \mathrm{C}$.
Flammability: Highly flammable liquid and vapour.
Flash Point $-20^{\circ} \mathrm{C}$ at 101325 Pa
Vaph Point. -20 124 Pre at $24^{\circ} \mathrm{C}$
Melting Point $6.5^{\circ} \mathrm{C}$ at 101325 Pa
Physical State: Liquid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Classified as: Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2,H315; STOT SE 3,H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410
REACH Annex XVII: Listed in the Annex XVII. Conditions of restriction: 1. Shall not be placed on the market for the first time after 27 June 2010 , for supply to the general public, as a constituent of neoprene-based contact adhesives in concentrations equal to or greater than $0,1 \%$ by weight in package sizes greater than 350 g.2. Neoprene-based contact adhesives containing cyclohexane and not conforming to paragraph 1 shall not be placed on the market for supply to the general public after 27 December 2010.3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that neoprene-based contact adhesives containing cyclohexane in concentrations equal to or greater than $0,1 \%$ by weight that are placed on the market for supply to the general public after 27 December 2010 are visibly, legibly and indelibly REACH SVHC: Not included in SVHC.
Regulatory Controls
GHS Classification: H225: Highly flammable liquid and vapour. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H336: May cause drowsiness or dizziness. H410: Very toxic to aquatic life with long lasting effects. H400: Very toxic to aquatic life
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: Cyclohexane is commonly used as solvent. When it comes to local toxicity the chemical does not induce or elicit skin allergy. The substance may cause skin irritation and slight eye irritation. . It shows low acute toxicity with LD50 well above $2000 \mathrm{mg} / \mathrm{kg}$ bw in both dermal and oral exposure. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products.

TOXICOLOGICAL PROFILE
Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as slightly irritating. (ECHA)
LD50: LD50 (oral, rat) $>5000 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 401 (Acute Oral Toxicity); Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance. LD50 (dermal, rabbit) > $2000 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 402 (Acute Dermal Toxicity); Description: Acute toxicity studies via dermal route of exposure in rabbits showed that the substance has low skin toxicity. (ECHA)
NOAEL Oral: The NOAEL value was not found, however, based on a history of safe use, this chemical material is considered safe for use in cosmetics. The chemical is unlikely to produce systemic toxicity following skin contact.
Skin Irritation: In the in vivo studies on rabbits with occlusive coverage the substance was found to be not irritating. However, according to the GHS classification the substance causes skin Skin Sensitisation

sensitising. (ECHA)
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Cocoa Hand \＆Body Butter 2000mg（2022－753－5050）（variant）CPSR EU／UK passed under condition

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Acrylic acid（Nail Conditioning）
EU INCI：Acrylic acid
CTFA INCI：Acrylic acid
CNDA INCI：Acrylic acid．
Chinese：丙烯酸．
CAS Number：79－10－7．
EINECS Number：201－177－9．
Symbol：C3H4O2
Molecular Weight：72．063 Da．
Description：Acrylic Acid is the organic compound
Synonyms：2－Propenoic Acid，
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Oxidising Properties：Not oxidising
Viscosity： $1.149 \mathrm{mPa.s}$（dynamic）at $25^{\circ} \mathrm{C}$
Water Solubility： $1000 \mathrm{~g} / \mathrm{L}$ at $25^{\circ} \mathrm{C}$
Boiling Point： $141^{\circ} \mathrm{C}$ at 1013 hPa
Olour：Colourless
Density： 1.05 at 20
lammabing．Flammable liquid and vapour
lash Point： $48.5^{\circ} \mathrm{C}$ at 1013 hPa
LogP Log Kow： 0.46
Melting Point： $13^{\circ} \mathrm{C}$
Physical State：Liquid．
REGULATORY REQUIREMENTS
CLP Regulation（EC）No 1272／2008：Classified as：Flam．Liq．3，H226；Acute Tox． $4{ }^{*}$ ，H332；Acute Tox． 4 ＊，H312；Acute Tox． $4^{*}$ ，H302；Skin Corr．1A，H314；Aquatic Acute 1，H400；STOT SE 3； H335：C $\geq 1 \%$
Annex XVII：Not listed in the Annex XVII
EACH SVHC：Not included in SVHC list（Annex XIV）
GHS Classification：H226：Flammable liquid and vapour．H332：Harmful if inhaled．H312：Harmful in contact with skin．H302：Harmful if swallowed．H314：Causes severe skin burns and eye damage．H400：Very toxic to aquatic life．H335 May cause respiratory irritation（STOT SE3 ）－Specific concentration limit：STOT SE 3；H335：C $\geq 1 \%$ ．
Region：UK Type ：Cosmetic Restriction ：None

## TOXICITY REVIEW

General Toxicity Review：Acrylic acid is commonly used as nail conditioning ingredient．When it comes to local toxicity the chemical does not induce or elicit skin allergy．Data derived from animal studies demonstrate that the substance is corrosive to skin and eyes．The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects．Overall，the ingredient is considered to be safe when used as intended

TOXICOLOGICAL PROFILE
Eye Irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as causing the irreversible effect on the eye． EHA）
aberration（rat）（ECHA
Inhalation：May cause respiratory irritation
LD50：LD50（oral，rat） $1000 \mathrm{mg} / \mathrm{kg}$ bw；OECD Guideline 423 （Acute Oral toxicity－Acute Toxic Class Method）；Description：Acute toxicity studies via oral route of administration in rats demonstrated high toxicity of the substance．；LD50（dermal，rabbit）＞ $2000 \mathrm{mg} / \mathrm{kg}$ bw；OECD Guideline 402 （Acute Dermal Toxicity）；Description：Acute toxicity studies via dermal route of exposure in rabbits（occlusive type of coverage）showed that the substance has low skin toxicity．（ECHA）
Mutagenicity：Non mutagenic in mammalian cells in vitro（ECHA）
NOAEL Inhalation：NOAEC $0.015 \mathrm{mg} / \mathrm{l}$ air．Study type：repeated dose toxicity．Endpoint：sub－chronic toxicity：inhalation；Guideline：OECD Guideline 413 （Subchronic Inhalation Toxicity：90－Day tudy）；Species：mouse；Report date：1979；Source：ECHA，MoS was calculated based on this data
OAEL Oral：NOAEL $83 \mathrm{mg} / \mathrm{kg}$ bw／day．Study type Repeated dose toxicity．Endpoint sub－chronic toxicity．Report date 1993：Source：ECHA；MoS was calculated based on this data
Read－across：Not susceptible to microbiological contamination
Reproductive Toxicology：NOAEL $250 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：one－generation reproductive toxicity（oral，rat，1980，OECD 415）（ref．ECHA）
kin Irritation：In the in vivo studies on rabbits with semiocclusive coverage the substance was found to be corrosive．（ECHA
non－sensitising．（ECHA）
Allergens Patch Test：Reported to cause skin sensitisation as a result of polymerisation of acrylic resins where about 16\％of was released．
Carcinogenicity：There is no evidence that the Acrylic acid is carcinogenic according to 2 －year study（oral－drinking water，rat，dose $78 \mathrm{mg} / \mathrm{kg} \mathrm{bw} / \mathrm{day}$ ）（ECHA）

## OTHER

Hazard Class and Category Code（s）：Flam．Liq．3，Acute Tox．4，Skin Corr．1A，Aquatic Acute
Hazard statement Code（s）：H226，H332，H312，H302，H314，H400
Bioaccumulation（Environmental）：Acrylic acid does not accumulate in organisms． was readily biodegradable in a sandy loam soil under aerobic conditions at $25^{\circ} \mathrm{C}$ in the dark．The DT50 under these conditions was estimated to be＜ 1 day．Acrylic acid is also susceptible to degradation by anaerobic microbes．（ECHA）
LC50（Environmental）：Fish：LC50 $27 \mathrm{mg} / \mathrm{L}$（measured），Salmo gairdneri， 96 h （EPA OTS 797．1400）；LC50 $236 \mathrm{mg} / \mathrm{L}$（measured），Cyprinodon variegatus， 96 h （OECD TG 203）；Algae：EC50 0.13 $\mathrm{mg} / \mathrm{L}$（nominal），Scenedes：mus subspicatus， $72 \mathrm{~h}(79 / 831 / E E C, C .3$ ）；EC10 $0.03 \mathrm{mg} / \mathrm{L}$（nominal），Scenedesmus subspicatus，72h（92／69／EEC，C．3）（ECHA）
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Glycol（Ethylene glycol）（Humectant，Solvent，Viscosity Controlling）
EU INCI：Glycol．
CTFA INCI：Glyco
Chinese：乙二醇（ Z 二醇）
CAS Number：107－21－1．
EINECS Number：203－473－3．
Symbol：C2H6O2
Molecular Weight： 62.068 Da ．
Description：Organic chemical synthesized from ethylene（ethene）where ethylene oxide reacts with water to produce ethylene glycol．Has poisoning properties if swallowed

Odour：
Oxidising Properties：Not oxidising
Viscosity： 16.1 mPas at $25^{\circ} \mathrm{C}$
Water Solubility： $1000 \mathrm{~g} / \mathrm{L}$
Boiling Point： $197.4^{\circ} \mathrm{C}$ at 1013 hPa
Colour：Colourless
Density： $1.11 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
Flash Point： $111^{\circ} \mathrm{C}$
Vapour Pressure： 0.123 hPa at $25^{\circ} \mathrm{C}$
LogP Log Kow：-1.36 at $25^{\circ} \mathrm{C}$
Melting Point：$-13^{\circ} \mathrm{C}$
Physical State：Liquid．
REGULATORY REQUIREMENTS
CLP Regulation（EC）No 1272／2008：Classified as：Acute Tox． 4 ＊H302
REACH Annex XVII：Not listed in the Annex XVII．
RE Clific．Non
GHS Classification：H302．Hotic Row
Region．Euk Type ：Cosmetic Retriction ：No．Not suitable for mouthwash and toothpaste products．

## TOXICITY REVIEW

General Toxicity Review：Based on the available information the substance is not associated with the skin sensitisation，skin and eye irritation．It shows low acute toxicity with LD50 $>3500 \mathrm{mg} / \mathrm{kg}$ bw in both dermal and oral exposure．It also have low chronic toxicity where dermal exposure is considered．The ingredient characteristic suggest that after prolonged or repeated oral exposure to the substance it may cause damage to organs．

## TOXICOLOGICAL PROFILE

Eye Irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as not irritating．（ECHA）
Genotoxicity：Negative in vitro gene mutation study in bacteria and in vivo mammalian germ cell study：cytogenicity／chromosome aberration（ECHA）
LD50：LD50（oral，rat） $7712 \mathrm{mg} / \mathrm{kg}$ bw；Description：Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance．LD50（dermal，mouse）＞3500 mg／kg bw；
Description：Acute toxicity studies via dermal route of exposure in mice（occlusive type of coverage）showed that the substance has low skin toxicity．（ECHA）
NOAEL Dermal：NOAEL $2200-4400 \mathrm{mg} / \mathrm{kg}$ bw．Study type：repeated dose toxicity．Species：dog．Endpoint：short－term repeated dose toxicity．Guideline：OECD Guideline 410 （Repeated Dose
NOAEL Oral：NOAEL $150 \mathrm{mg} / \mathrm{kg}$ bw／day．Study type：repeated dose toxicity．Endpoint：chronic toxicity．Guideline：OECD Guideline 452 （Chronic Toxicity Studies）；Species：rat；Bibliographic source：
Toxicol Appl Pharmacol 228：165－178（2008）；Source：ECHA，MoS was calculated based n this data
Repeated Dose Toxicity：May cause damage to organs through prolonged or repeated exposure．
Reproductive Toxicology：NOAEL $1000 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：Toxicity to reproduction；Endpoint：three－generation reproductive toxicity；Species：rat；Source：ECHA
Safety evaluation：The chemical is associated with poisoning caused by ingestion．Once swallowed it is broken down to toxic chemicals such as Glycolic acid and Oxalic acid
ADME（Absorption，Distribution，Metabolism，Excretion）：Glycolic acid is a relevant metabolite for developmental toxicity．（ECHA）Based on investigators research，Ethylene Glycol is poorly absorbed through the skin．（CIR）
Skin Sensitisation：Non－LLNA in vivo examinations were conducted，using guinea pig maximisation test，to find evidence for skin sensitisation．The test results showed that the chemical is non－ sensitising．（ECHA）
Allergens HRIPT：Repeated patch test was conducted on 447 subjects． 3 of the subjects had reactions on challenge indicative of possible irritation and／or low level sensitization．The substance was considered to have low potential to induce dermal sensitization．（ECHA）
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Diethylene glycol（Not Reported）
EU INCI：Diethylene glycol．
CTFA INCI：Diethylene glycol．
Chinese：二甘醇
CAS Number：111－46－6
EINECS Number：203－872－2
IUPAC Name：2－（2－hydroxyethoxy）ethanol
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour：Characteristic
Water Solubility－ $1000 \mathrm{~g} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$（miscible in any portion）
Boiling Point： $244.9^{\circ} \mathrm{C}$ at 1013 hPa
Colour：Colourless
Density： $1.118 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
Flammability：Non flammable
Flash Point： $138^{\circ} \mathrm{C}$
Vapour Pressure： 0.008 hPa at $25^{\circ} \mathrm{C}$
Physical State：Liquid．

## REGULATORY REQUIREMENTS

CLP Regulation（EC）No 1272／2008：Classified as：Acute Tox． 4 ＊H302
REACH Annex XVII：Not listed in Annex XVII．
REACH SVHC：Not listed in SVHC list（Annex XIV）
Regulatory Controls：SCCP is of the opinion that diethylene glycol（DEG）should not be used as an ingredient incosmetic products including oral care products．SCCP is of the opinion that a maximum concentration of up to $0.1 \%$ DEG from impurities in ingredients like glycerine and polyethylene glycols in the finished cosmetic products can be considered to be safe．（SCCP Opinion 2008）
GHS Classification：H302 Harmful if swallowed
Region ：Europe Type ：Cosmetic Restriction ：Prohibited or $0.1 \%$ as traces in ingredients
Region ：UK Type ：Cosmetic Restriction ：Prohibited or $0.1 \%$ as traces in ingredients
TOXICITY REVIEW
General Toxicity Review：Data obtained in vivo and in vitro／ex vivo（animal and human skin model studies）was found to be not irritating to eyes，and skin．The substance was found to be non－ sensitising in guinea pig maximisation test．Overall，the ingredient is considered to be of toxicological concern when used in consumer products．It shows very low acute toxicity with LD50 at 16500 $\mathrm{mg} / \mathrm{kg}$ bw in oral and LD50 at $13300 \mathrm{mg} / \mathrm{kg}$ bw in dermal route of exposure．Repeated dose toxicity study indicated the NOAEL at $2220 \mathrm{mg} / \mathrm{kg}$ bw $/ \mathrm{day}$ and $128 \mathrm{mg} / \mathrm{kg}$ bw $/ \mathrm{day}$ via dermal and oral that DEG is metabolizedively．As per SCCS 2008 DEG is toxic primarily to the kidney and nervous system and can produce a wide variety of signs and symptoms after consumption．It was found concern for human health which leads to acute kidney failure．The presence of a condition known as metabolic acidosis is associated with human poisoning，from the clinical observation is caused by neurologic symptoms，including encephalopathy，coma，and death．

## TOXICOLOGICAL PROFILE

Eye Irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as not irritating．（ECHA）
LD50：LD50（oral，rat） $16500 \mathrm{mg} / \mathrm{kg}$ bw；Description：Acute toxicity studies via oral route of administration in rats demonstrated very low toxicity of the substance．LD50（dermal，rabbit） 13300 $\mathrm{mg} / \mathrm{kg}$ bw；Description：Acute toxicity studies via dermal route of exposure in rabbits（occlusive type of coverage）showed that the substance has very low skin toxicity．（ECHA）
NOAEL Dermal：NOAEL $2220 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：Repeated dose toxicity；Endpoint：short－term repeated dose toxicity：dermal；Guideline：OECD Guideline 410 （Repeated Dose Dermal Toxicity：21／28－Day Study）；Species：dog；Report date：1991；Source：ECHA，MoS was calculated based on this data Species：rat；Duration： 225 days；Report date：1976；Source：ECHA；MoS was calculated based on this data
Reproductive Toxicology：NOAEL $3060 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：Toxicity to reproduction；Endpoint：two－generation reproductive toxicity：oral；Species：mouse；Guideline：New reproductive toxicology testing scheme which has been designated＂Fertility Assessment by Continuous Breeding＂．Report date：1984；Source：ECHA，
Skin Irritation：In the in vitro／ex vivo studies on the human skin model the substance was found to be not irritating and not corrosive．（ECHA）
Skin Sensitisation：Non－LLNA in vivo examinations were conducted，using guinea pig maximisation test，to find evidence for skin sensitisation．The test results showed that the chemical is non－ sensitising．（ECHA）
 irritant．（ECHA）Patch test was performed on 10 volunteers．There was one slight erythema at 4 hours and marked erythema at 6 hours．Also one slight erythema at 6 hours，and one female subject had marked erythema at 6 hours．After 24 h reaction disappeared．（ECHA）
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Ethyl Acetate (Perfuming, Solvent)
EU INCI: Ethyl Acetate.
CTFA INCI: Ethyl Acetate
CAS Number: 141-78-6.
EINECS Number: 205-500-4
Symbol: C4H8O2
Molecular Weight: 88.105 Da .
Description: Organic compound with a characteristic sweet smell
Synonyms: N-butyl acetate


PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Sweet, ester like, fruity
Specific Gravity: 0.902 at 20C
Specific Gravity: 0.902 at 20C
Viscosity: $0.45 \mathrm{mPa} \cdot \mathrm{s}$ (dynamic) at $20^{\circ} \mathrm{C}$
Water Solubility: $80000 \mathrm{mg} / \mathrm{L}$ at $25^{\circ}$. Miscible in water (CIR)
Boiling Point: $126.2^{\circ} \mathrm{C}(101325 \mathrm{~Pa})$
Particle Size: The non-solid or granular form does not require the particle size distribution study.
Colour: Colourless
Density: $900.3 \mathrm{~kg} / \mathrm{m} 3$ at 20 C
Flash Point: $27^{\circ} \mathrm{C}$ ( 101325 Ca
Vapour Pressure: 10.3 kPa at $21^{\circ} \mathrm{C}$
LogP Log Kow: 0.68 at $25^{\circ} \mathrm{C}$
Melting Point: 189 K at 101325 Pa
Physical State: Liquid.

## REGULATORY REQUIREMENTS

German Water Hazard Class (WGK): Slightly hazardous to water (WGK 1)
CLP Regulation (EC) No 1272/2008: Classified as: Flam. Liq. 2 H225; Eye Irrit. 2 H319; STOT SE 3 H336
REACH Annex XVI: Not listed in Annex XVII
GHS Classification: H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H225 Highly flammable liquid and vapour..
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction: None

## TOXICITY REVIEW

General Toxicity Review: Ethyl acetate is also known as n-butyl acetate and is commonly used as perfuming agent and solvent. It is classified as per GHS and may cause drowsiness and dizziness, it also causes serious eye irritation. In vivo studies (animal data) indicated that it causes moderate eye irritation, mild skin irritation and it is non-sensitising. Acute toxicity study determined the median lethal dose at $5620 \mathrm{mg} / \mathrm{kg}$ bw via oral route and at $20000 \mathrm{mg} / \mathrm{kg}$ bw via dermal route. repeated dose toxicity study determined NOAEL value at 500 ppm via inhalation and $125 \mathrm{mg} / \mathrm{kg}$ bw/day via oral route and indicated that it has moderate toxicity potential.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation. The studies resulted in scoring as not irritating. However, the moderately irritation to eyes appeared, but all eye responses disappeared within 7 days (ECHA). Studies of a nail polish remover formulation containing $16.5 \%$ Ethyl Acetate was conducted on rabbits. The product was found to cause corneal dullness, slight conjunctivitis, and $35 \%$ corneal vascularization. (CIR)
Genotoxicity: Negative in vitro gene mutation study in mammalian cells (S. typhimurium TA 1535, TA 1537, TA 98 and TA 1000); Negative in vivo mammalian somatic cell study: cytogenicity /
LD50: LD50 (oral, rat) $5620 \mathrm{mg} / \mathrm{kg}$ bw; Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance. LD50 (dermal, rabbit) > $20000 \mathrm{mg} / \mathrm{kg}$ bw; Description: Acute toxicity studies via dermal route of exposure in rabbits (occlusive type of coverage) showed that the substance has low skin toxicity. (ECHA) LC50 (inhalation, rats) 16,000 ppm after 6 h (CIR)
Mutagenicity: No evidence of mutagenic potential.
NOAEL Inhalation: NOAEC 500 ppm . Study type Repeated dose toxicity. Endpoint sub-chronic toxicity. Method EPA OTS 798.2450 (90-Day Inhalation Toxicity). Reference date 1996 (ECHA). NOAEL $350 \mathrm{ppm}(1.28 \mathrm{mg} / \mathrm{L})$ NOAEL $900 \mathrm{mg} / \mathrm{kg}$ bw/dayStudy type: repeated dose toxicity; Endpoint:sub-chronic toxicity: oral; Species:rat; Guideline:EPA OTS 795.2600 (Subchronic Oral Toxicity Test); Report date:1988 (ECHA)
NOAEL Oral: The NOAEL in this study is $125 \mathrm{mg} / \mathrm{kg}$ bw/d in a 90 -day toxicity study caused CNS effects in the highest dose group (ataxia and hypoactivity). NOAEL $900 \mathrm{mg} / \mathrm{kg}$ bw. Study type: repeated dose toxicity. Endpoint: sub-chronic toxicity: oral. Route of administration: oral.Species: rat. Method: EPA OTS 795.2600 (Subchronic Oral Toxicity Test) Report date: 1988. Source: ECHA. MoS was calculated based on this data
Phototoxicity: Photopatch test of Ethyl Acetate ( $6.5 \%$ in nail color) was conducted on 30 subjects. The product was found not phototoxic and not photoallergenic. (CIR)
Skin Irritation: In vivo studies on rabbits with open type of test were conducted. No skin irritation was observed. Test results were inconclusive due to non-occluded coverage and small application volume. The substance cannot be assessed as not irritating (ECHA). Studies of a nail polish formulation containing 10\% Ethyl Acetate was conducted on New Zealand White rabbits. The product
Wkin Sensitisation: Non-LLNA in vivo examinations were conducted, using guinea pig maximization test, to find evidence for skin sensitisation. The test results showed that the substance is nonsensitising (ECHA)
Allergens MaximisationTest: Maximisation test of product containing $97 \%$ Ethyl Acetate was conducted on 25 subjects (18-48 years old). The product was found not skin sensitiser. (CIR)
Allergens Patch Test: Ethyl Acetate, 10\% in potrolatum was ate was performed on 118 subjects (18-65 years old). The product was not associated with skin sensitisation or irritation. (CIR)
arcinogenicity: No evidence of carcinogenic potential.

## OTHER

Biodegradability (Environmental): Biodegradation in water. Results: $94 \%$ CO2 Evolution test (OECD 301B) after 8 days. Conclusion: readily biodegradable.
LC50 (Environmental): Fish: LC50 - Pimephales promelas - $230 \mathrm{mg} / \mathrm{l}-96 \mathrm{~h}$; LC50 - Poecilia reticulata (Guppy) - $210 \mathrm{mg} / \mathrm{l}$ - 48 h (EPA methodology); Algae: NOEC - Scenedesmus subspicatus $100 \mathrm{mg} / \mathrm{l}$ - 72h (OECD TG 201) (ECHA)
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Sodium Carbonate（Buffering，Bulking）
EU INCI：Sodium Carbonate．
CTFA INCI：Sodium Carbonate．
Chinese：碳酸钠．
CAS Number：497－19－8
EINECS Number：207－838－8．
Symbol：Na2CO3
Molecular Weight： 105.99
Synonyms：natrii
Synonyms：natrii carbonas；monosodium carbonate，monohydrate；sodium carbonate；sodium carbonate（2：3），dihydrate；sodium carbonate（4：5）；sodium carb carbonate，hydrate；disodium carbonate，heptahydrate；disodium carbonate，monohydrate

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour：Odourless
Oxidising Properties：No oxidising
$\mathrm{HH}: 11.6$（concentration 0.1 ：Molar aqueous solution
Water Solubility： $212.5 \mathrm{~g} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$
Colour：White
Density： $2.52-2.53 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
lammability：Non flammable
Physical State：Powder．
REGULATORY REQUIREMENTS
CLP Regulation（EC）No 1272／2008：Classified as：Eye Irrit．2，H319
REACH Annex XVII：Not listed in the Annex XVII．
REACH SVHC：Not included in SVHC list（Annex XIV）．
GHS Classification：H319：Causes serious eye irritation
Region ：Europe Type ：Cosmetic Restriction ：None
Region ：UK Type ：Cosmetic Restriction ：None
TOXICITY REVIEW
General Toxicity Review：Based on the available toxicological data there is no evidence of eye irritation or corrosivity potential of Sodium Carbonate．However，it causes serious eye irritation．The substance shows low acute toxicity with LD50 above $2000 \mathrm{mg} / \mathrm{kg}$ bw in dermal and LD50 equal $2800 \mathrm{mg} / \mathrm{kg}$ bw in oral route of exposure．Repeated dose toxicity study was conducted and the NOAEL was determined to be around $245 \mathrm{mg} / \mathrm{kg}$ bw for rats and therefore it is considered as moderately systemic toxic via oral route of administration．

## TOXICOLOGICAL PROFILE

Eye Irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as not irritating．However，according to the GHS classification the substance causes serious eye irritation（ECHA）
Genotoxicity：In vitro：negative（S．typhimurium，other：TA 92，94，98，100，1535，1537）（ECHA）
Inhalation：May cause damage to upper respiratory tract，lung irritant
（ 550 ：LD50（oral，rat） $2800 \mathrm{mg} / \mathrm{kg}$ bw；Description：Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance．LD50（dermal，rabbit）＞ $2000 \mathrm{mg} / \mathrm{kg}$ bw EPA 16 CFR 1500．40；Description：Acute toxicity studies via dermal route of exposure in rabbits showed that the substance has low skin toxicity．（ECHA）LDL（Lowest Published Lethal Dose） Man］－Route：Oral；Dose： $714 \mathrm{mg} / \mathrm{kg}$
NOAEL Inhalation：NOAEL $>10 \mathrm{mg} / \mathrm{m}^{3}$ air Study type：repeated dose toxicity：inhalation（2015，Humans have been regularly exposed to sodium carbonate in various guises over a considerable ength of time．There has been no significant reports of ill health caused by inhalation of sodium carbonate either in powder or aerosol form）（ref．echa）
NOAEL Oral：NOAEL $245 \mathrm{mg} / \mathrm{kg}$ bw．Study type Developmental toxicity／teratogenicity．Endpoint developmental toxicity．Exposure and species Oral ，rats．Study date 1974 （ECHA）
Reproductive Toxicology：May cause adverse reproductive effects based on animal test data
Skin Irritation：In the in vivo studies on rabbits with occlusive coverage the substance was found to be not irritating．（ECHA）
Skin Sensitisation：Based on the available toxicological data there is no evidence of skin allergy potential．
Allergens Patch Test：Modification of the Draize test for human sensitization of a bar soap product containing $0.25 \%$ Sodium Carbonate was performed on 109 subjects．It was found that the soap roduct was neither a strong irritant nor a contact sensitizer．（CIR）
Carcinogenicity：Not associated with carcinogenic，mutagenic and reprotoxic（CMR）chemicals
OTHER
Hazard Class and Category Code（s）：Eye Irrit． 2
Hazard statement Code（s）：
Hazard statement Code（s）：H319
Hazard statement Code（s）：H319
Signal Word Code（s），Pictogram：GHS07 Wng
Detergent Class：zeolite，builder
eurofins

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Chloride（Not Reported）
EU INCI：Chloride．
CTFA INCI：Chloride
Chinese：氯化物
CAS Number：16887－00－6．
EINECS Number：690－375－2
Symbol： Cl －．
Molecular Weight： $35.45 \mathrm{~g} / \mathrm{mol}$
chloride
Synonyms：Chloride anion ；Chloride ions；Chloride（ion）；Chlorine anion；Chlorine，ion；Hydrochloric acid，ion（1－）；Cl－；Chlorine ion；Chloride（Cl－）；Chlorine（1－）；Chlorine

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Water Solubility： $6.3 \mathrm{mg} / \mathrm{mL}$ at $25^{\circ} \mathrm{C}$
Particle Size：The non－solid or granular form does not require the particle size distribution study
Melting Point：$-101^{\circ} \mathrm{C}$
Physical State：Liquid．
REGULATORY REQUIREMENTS
CLP Regulation（EC）No 1272／2008：Not classified as per CLP，Annex VI
REA SVHC：Nol Nisted in the Annex XVII．
REACH SVHC：Not included in SVHC list（Annex XIV）．
Region ：Europe Type ：Cosmetic Restriction．Norgic reaction
Region：UK Type ：Cosmetic Restriction ：Not controlled

## TOXICITY REVIEW

General Toxicity Review：Based on the available information，chlorides are not associated with the skin and eye irritation．However，they are considered to be skin sensitising．Read across to calcium chloride，sodium chloride，and potassium chioride，it shows low acute toxicity with LD50 around 1000，3000，and $2430 \mathrm{mg} / \mathrm{kg}$ bw in oral route of exposure．Chloride toxicity has not been observed in humans apart from individuals with impaired sodium chloride metabolism，e．g．in congestive heart failure（WHO）．Overall，the ingredient is not considered to be of toxicological concern when used in consumer products．

TOXICOLOGICAL PROFILE
Eye Irritation：Based on the available toxicological data there is no evidence of eye irritation potential
Eye irritation：Based on the available toxicological data there is no evidence of eye irritation potential．
LD50：LD50（oral，rats） 1000,3000 ，and $2430 \mathrm{mg} / \mathrm{kg}$ bw（read across to calcium chloride，sodium chloride，and potassium chloride）
NOAEL Oral：Chloride toxicity has not been observed in humans apart from individuals with impaired sodium chloride metabolism，e．g．in congestive heart failure（WHO）．
ADME（Absorption，Distribution，Metabolism，Excretion）：Based on WHO data＇In humans， $88 \%$ of chloride is extracellular and contributes to the osmotic activity of bodyfluids．The electrolyte balance in the body is maintained by adjusting total dietary intake andby excretion via the kidneys and gastrointestinal tract．Chloride is almost completely absorbedin normal individuals，mostly from the proximal half of the small intestine．Normal fluid lossamounts to about $1.5-2$ litres／day，together with about 4 g of chloride per day．Most（90－95\％）is excreted in the urine，with minor amounts in faeces（4－8\％）and sweat（2\％）．＇
Skin Irritation：Based on the available toxicological data there is no evidence of skin irritation potential．
Skin Sensitisation：May cause an allergic skin reaction（PubChem）．
Carcinogenicity：Not associated with carcinogenic，mutagenic and reprotoxic（CMR）chemicals．

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Hexane (Not Reported)
EU INCI: Hexane (Prohibited)
CTFA INCI: Hexane (Prohibited)
CAS Number: 110-54-3.
EINECS Number: 203-777-6.
Symbol: C6H14.
Molecular Weight: 86.18
Description: Highly volatile hydrocarbon obtained mainly by refining crude oil.
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Characteristic
Viscosity: 0.47 to $0.55 \mathrm{~mm} 2 / \mathrm{s}$ at $20^{\circ} \mathrm{C}$
Water Solubility: $0.0098 \mathrm{~g} / \mathrm{l}$
Partial Coefficient logPow: 4
Boiling Point: $>65^{\circ} \mathrm{C}$ to $72^{\circ} \mathrm{C}$
Density: $0.66-0.68 \mathrm{~g} / \mathrm{cm} 3$
Flammability: Highly Flammable liquid and vapour
Flash Point: <-20 ${ }^{\circ} \mathrm{C}$
Vapour Pressure: 20 to 30 kPa
Physical State: Liquid
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Classified as: Flam. Liq. 2 H225; Repr. 2 H361f ***; Asp. Tox. 1 H304; STOT RE 2 * H373 **; Skin Irrit. 2 H315; STOT SE 3 H336; Aquatic Chronic 2 H411 Specific Conc. Limits, M-factors: STOT RE 2; H373: C $\geq 5$ \%
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC.
GHS Classification: H225 Highly Flammable liquid and vapour. H361f Suspected of damaging fertility. H304 May be fatal if swallowed and enters airways. H373 Causes damage to organs through
prolonged or repeated exposure. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. Specific Conc. Limits, M-factors: STOT RE 2; H373: C $\geq 5 \%$.
Region: Europe Type • Cosmetic Restriction: Prohibited
Region: Europe Type : Cosmetic Restriction : Prohib
Region : UK Type : Cosmetic Restriction : Prohibited
TOXICITY REVIEW
General Toxicity Review: Hexene is considered as unsafe and is prohibited in cosmetic products. The substance may cause damage to fertility and organs through prolonged or repeated exposure. Overall, the ingredient is considered to be of toxicological concern when used in consumer products. Only unavoidable trace levels are acceptable.

## TOXICOLOGICAL PROFILE

Eye Irritation: Not expected to cause irritation. The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as not irritating. (ECHA)
Genotoxicity: Negative in vitro gene mutation study in bacteria (S. typhimurium, other: TA 1535, TA 1537, TA 1538, TA 98, and TA 100). Negative: in vivo mammalian germ cell study: cytogenicity / chromosome aberration (mouse). (ECHA)
Inhalation: May cause drowsiness or dizziness
D50: LD50 (oral, rat) $24 \mathrm{~mL} / \mathrm{kg}$ bw ( $\sim 16 \mathrm{~g} / \mathrm{kg}$ ) (1971, OECD Guideline 401) Description: Acute toxicity studies via oral route of administration in rats demonstrated high toxicity of the substance. LD50 (dermal, rabbit) $>5 \mathrm{~mL} / \mathrm{kg} \mathrm{bw}(3.35 \mathrm{~g} / \mathrm{kg})(1970$, OECD Guideline 402); Description: Acute toxicity studies via dermal route of exposure in rabbits showed that the substance is extremely toxic to skin. LC50 (inhalation, rat) 73860 ppm ( 4 h vapour 1970, OECD Guideline 403) Description: The substance when tested for acute toxicity via inhalation for 4 hours (aerosol) was found to be non-toxic. (ECHA)
Mutagenicity: Suspected of damaging fertility
NOAEL Oral: NOAEL $6.6 \mathrm{mmol} / \mathrm{kg}$ bw $/ 568 \mathrm{mg} / \mathrm{kg}$ bw/day Study type sub-chronic toxicity: oral (rat, 1980, Toxicology and Applied Pharmacology, 52, 433-441) (ECHA) MoS was calculated based on this data.
Precutaneous Absorption: Permeability of human skin to the solvent very low.
Repeated Dose Toxicity: Causes damage to organs through prolonged or repeated exposure
kin Irritation: Causes skin irritation. In the in vivo studies on rabbits with semiocclusive coverage the substance was found to be irritating (ECHA)
Skin Sensitisation: Not sensitising. LLNA in vivo examinations were conducted, using mouse local lymph node assay (LLNA) test, to find evidence for skin sensitisation. The test results showed频
Carcinogenicity: -Hexane is not classified for carcinogenicity
OTHER
LC50 (Environmental): LL50 12.51 mg/l (fish, 96h ) (ECHA)
eurofins

# Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Tocopherol (Antioxidant, Masking, Skin Conditioning,Perfuming)
EU INCI: Tocopherol.
CTFA INCI: Tocopherol
CNDA INCI: Tocopherol.
CAS Number: 59-02-9(10191-41-0)(1406-66-2)1406-18-4(54-28-4)(gamma).
EINECS Number: 200-412-2.
Symbol: C29H50O2
Molecular Weight: $430.71 \mathrm{~g} /$ mole.
Description. Tocol, delta-tocopherol and/or gamma-tocopherol and conforms to the formula
Synonyms: Vitamin, , -a-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-3,4-dihydro-2H-1-benzopyran-6-ol

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Odour: Odorless
Oxidising Properties: No oxidising properties.
Specific Gravity: 0.95 (Water =1
Water Solubility: Soluble in diethyl ether, acetone. Insoluble in cold water. Soluble in alcohol
Boiling Point: $200^{\circ} \mathrm{C}\left(392^{\circ} \mathrm{F}\right)-220 \mathrm{C}$. @ 0.13 mm Hg
Colour: Light yellow
Density: 0.95
Flammability: Non flammable.
Vapour Pressure: Not applicable, calculated value: $1.80 \mathrm{E}-8 \mathrm{hPa}$ at $25^{\circ} \mathrm{C}$
LogP Log Kow: 12.2 at $25^{\circ} \mathrm{C}$
Melting Point: $2.5^{\circ} \mathrm{C}\left(36.5^{\circ} \mathrm{F}\right)$
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Viscous liquid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex. No. Not isted in Annex XVII,
GHS Classification. Not classified as per GHS
Region - Europe Type • Cosmetic Restriction :
Region : UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: Tocopherol consists of alpha-tocopherol, beta-tocopherol, delta-tocopherol and/or gamma-tocopherol. Data derived from animal studies demonstrate that the substance is not irritating to eyes and slightly irritating to skin. The substance is classified as not sensitising to skin. It shows low acute toxicity with LD50 above $7500 \mathrm{mg} / \mathrm{kg}$ bw in oral route of exposure and LD50 above $5000 \mathrm{mg} / \mathrm{kg}$ bw in dermal route of exposure. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products as intended.

## TOXICOLOGICAL PROFILE

AcuteToxicology: Vitamin E toxicity is found to be rare, however high doses cause (or overdosing via supplementation) a risk of bleeding, along with muscle weakness, fatigue, nausea, or diarrhoea.
Endocrine Effects: The chemical material does not have Endocrine disruptors (ED) properties.
Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as not irritating. (ECHA). Three rabbits were used to determine the ocular irritation potential of tocopherol. 0.1 ml of the undiluted test substance was applied to the rabbits' eyes. The eyes were observed up to 7 days. Tocopherol was a minimal eye irritant (CIR).
Genotoxicity: In vitro gene mutation study in bacteria: negative (S. typhimurium - TA1535, TA97, TA98, TA100, and TA102) (ECHA)
LD50: LD50 (oral, rat) $>7500 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 401 (Acute Oral Toxicity); No mortality occurred during the study. Description: Acute toxicity studies via oral route of administration in rats showed that the substance is practically non-toxic. Acute toxicity studies via dermal route of exposure in rabbits (occlusive type of coverage) showed that the substance has low skin toxicity. (ECHA). Overdose of vit. $E$ is however toxic in humans.
NOAEL Oral: NOAEL $500 \mathrm{mg} / \mathrm{kg}$ bw/day; Study type: repeated dose toxicity. Endpoint:sub-chronic toxicity: oral; Species: rat; Guideline:OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents); Bibliographic source:Fd Chem Toxic. 24 (10/11): 1043-1050. (1986) MoS was calculated based on this data (ECHA) ; NOAEL $167 \mathrm{mg} / \mathrm{kg}$ bw. Study type, LOAEL of $500 \mathrm{mg} / \mathrm{kg}$ bw/day based on potential for hemorrhagic effect. NOAEL $=$ LOAEL $/ 3=500 / 3=167 \mathrm{mg} / \mathrm{kg} \mathrm{bw} / \mathrm{day}$. Report date 2012 (Mattilsynet)
Precutaneous Absorption: 2\%
Reproductive Toxicology: NOAEL $800 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: Toxicity to reproduction; Endpoint: one-generation reproductive toxicity; Guideline:OECD Guideline 415 [One-Generation Reproduction Toxicity Study (before 9 October 2017)]; Species: rat; Bibliographic source:J Agric Food Chem 25: 273-278 (1977) (ECHA). MoS was calculated based on this data.
Skin Irritation: In the in vivo studies on rabbits with semi-occlusive coverage the substance was found to be slightly irritating (ECHA). 0.3 ml of the test material was applied to the back of rabbits under an occlusive patch for 24 h . Tocopherol, $1.0 \%$, was a weak primary skin irritant (CIR).
Skin Sensitisation: Not classified as a skin sensitizer. It is known to have some sensitizing properties and therefore recommended to be used at below $0.1 \%$ in individuals with the confirmed skin allergy to vitamin $E$. Reported to cause allergic contact dermatitis (ACD) (http://contactallergy.com/contact_allergy_008.htm). When dermatologically tested at $1 \%$ in petrolatum showed positive allergic reactions (http://www.patchtesting.info). When Vitamin E is used in leave-on cosmetics the safety factor of 100 should be applied if products are intended for sensitive sub-populations. If Tocopherol and its derivatives are used in products intended for sensitive individuals dermatological patch test is recommended. Non-LLNA in vivo examinations were conducted, using guinea pig maximization test in 20 tests and 10 control female albino Dunkin Hartley guinea pigs. Tocopherol was classified as having moderate sensitisation potential in a local lymph node assay (LLNA) (CIR).
(CIR).
rest time the chall: The mixture containing $<0.1 \%$ of Tocopherol was used in a repeated patch test on guinea pigs. The test material was applied to the selected skin area
ast conducted with $0.2 \%$ DL-alpha-tocopherol in light liquid paraffin or as an emulsion with Freund Complete Adjuvant. Reactions were evaluated 24 and 48 hours after patch radermal induction was was classified as having moderate sensitization potential. (CIR)
Carcinogenicity: Not associated with carcinogenic, mutagenic and reprotoxic (CMR) chemicals.

## OTHER

Biodegradability (Environmental): Biodegradation in water: screening test. Result: 30-40\% degradation after 39 days. Conclusion: inherently biodegradable. (ECHA)
LC50 (Environmental): Fish: LC50 Oncorhynchus mykiss (rainbow trout) $10 \mathrm{mg} / \mathrm{L}-96 \mathrm{~h}$; OECD Guideline 203; Algae: EC10 or NOEC Selenastrum capricornutum $25.8 \mathrm{mg} / \mathrm{L}-72 \mathrm{~h}$; OECD Guideline 201 (ECHA)
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Sodium Sulfate（Bulking，Viscosity Controlling）
EU INCI：Sodium Sulfate．
CTFA INCI：Sodium Sulfate
Chinese：硫酸钢．
CAS Number：7727－73－3（7757－82－6）．
EINECS Number：231－820－9．
Symbol： Na 2 O 4 S
Molecular Weight： 142.042
Ph．Eur Name：natrii sulphate
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour：Odourless
pH：6－8（ $1 \%$ solution）
Viscosity： 2.481 mPas （dynamic）at $20^{\circ} \mathrm{C}$
Water Solubility： $445.5 \mathrm{~g} / \mathrm{L}$ at $20.0^{\circ} \mathrm{C}$ and pH of 5.23
Boiling Point：＞ $300^{\circ} \mathrm{C}$
Colour：White
Density： $2.7 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
Melting Pow： 80.38
Physical State：Powder．

## REGULATORY REQUIREMENTS

CLP Regulation（EC）No 1272／2008：Not classified as per CLP，Annex VI
REACH Annex XVII：Not listed in the Annex XVII．
REACH SVHC：Not included in SVHC list（Annex XIV）．
GHS Classification：Not classified as per GHS．
Region ：Europe Type ：Cosmetic Restriction：None
Region ：UK Type：Cosmetic Restriction：None
Region ：UK Type ：Cosmetic Restriction ：None
TOXICITY REVIEW
General Toxicity Review：Sodium Sulfate is commonly used as bulking and viscosity controlling agent．The substance was tested in vivo and scored as not irritating to eyes and skin．Non－LLNA examination shown that the chemical is not sensitising vial dermal route of exposure．It shows low acute toxicity with LD50 above $2000 \mathrm{mg} / \mathrm{kg}$ bw in oral exposure．Repeated dose toxicity study indicated the NOAEL at $1000 \mathrm{mg} / \mathrm{kg}$ bw／day via oral route of exposure．The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects．Overall，the ingredient is not considered to be of toxicological concern when used as intended．

## TOXICOLOGICAL PROFILE

Eye Irritation：No adverse effects expected but dust may cause mechanical irritation．The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as not irritating．（ECHA）
Genotoxicity：In vitro：negative（S．Typhimurium TA1535，TA1537，TA100，TA98）．In vivo：negative（mouse）（ECHA）
LD50：LD50（oral，rat）$>2000 \mathrm{mg} / \mathrm{kg}$ bw；OECD Guideline 423 （Acute Oral toxicity－Acute Toxic Class Method）；Description：Acute toxicity studies via oral route of administration in rats emonstrated low toxicity of the substance．（ECHA）
NOAEL Dermal：LOAEL $2 \mathrm{ml} / \mathrm{kg} /$ day（Study type experimental study．Endpoint sub－chronic toxicity．Species rabbit．Duration 91 days．Methods OECD Guideline 411 （Subchronic Dermal Toxicity： 90－Day Study）．Reference date 1977．MoS was calculated based on this data．（ECHA）
NOAEL Oral：NOAEL $1000 \mathrm{mg} / \mathrm{kg}$ bw／day（Study type experimental study．Endpoint repeated dose toxicity：oral．Species rat．Duration
Skin Irritation：Not expected to be skin irritant．In vivo studies on rabbits with occlusive coverage，the substance was found to be not irritating（ECHA），
skin Sensitisation：Non－LLNA in vivo examinations were conducted，using guinea pig maximisation test，to find evidence for skin sensitisation．The test results showed that the chemical is non－ sensitising（ECHA）．
Allergens HRIPT：In a sensitisation study sodium sulfate in a concentration $1.01 \%$ was used．The insult patch test was conducted on 61 participants．Mild erythema was observed in one subject during the induction phase．No adverse reactions were reported during the challenge phase．（CIR
Alergens Patch Test：In the single occlusive patch test the bath product containing $9.7 \%$ Sodium sulfate was used．The study involved 19 subjects．Adverse reaction was observed in one
Carcinogenicity：Not associated with carcinogenic，mutagenic and reprotoxic（CMR）chemicals．
eurofins

# Cocoa Hand \＆Body Butter 2000mg（2022－753－5050）（variant）CPSR EU／UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

odium Chloride（Bulking，Masking，Oral Care，Viscosity Controlling）
EU INCI：Sodium Chloride．
CTFA INCI：Sodium Chloride．
Chinese：氯化钠．
CAS Number：7647－14－5．
EINECS Number：231－598－3．
EINECS Numb
Symbol： NaCl ．
Molecular Weight：58．443
EINECS No．：231－598－3
IUPAC Name：Sodium chloride
Synonyms：Sodium chloride；Sodium monochloride Salt；Table salt；Halite；Saline，Salt
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour：Odourless
Viscosity： 1.93 mPa －s
Water Solubility： $317 \mathrm{~g} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$
Boiling Point： $1461^{\circ} \mathrm{C}$
Particle Size：Test reports of two different granular forms of sodium chloride confirm that the particle size is bigger than $100 \mu \mathrm{~m}$ ．Thus，the particles are not inhalable（ECHA）
Colour：Colourless
Elammability：Non flammab $20^{\circ} \mathrm{C}$
Vapour Pressure： 1 mm Hg at $1589^{\circ} \mathrm{F}$
Melting Point： $801^{\circ} \mathrm{C}$
Microbiological stability：Salt is known as an effective preservative system due to its intrinsic properties of reducing the water activity（aw）which is in the amount of unbound water available for microbial growth and chemical reactions．
Physical State：Solid．

## REGULATORY REQUIREMENTS

Labelling Requirements：Recommended warnings：For external use only．Do not ingest
CLP Regulation（EC）No 1272／2008：Not classified as per CLP，Annex VI
REACH AnMC．Not included in SVHC Annex XVII
EACH SVHC：Not included in SVHC list（Annex XIV）．
GHS Classification：Not classified as per GHS
Region ：UK Type ：Cosmetic Restriction：None

## TOXICITY REVIEW

General Toxicity Review：Sodium Chloride is a well－known cosmetic substance．In vivo tests indicated that he substance is non－irritating to skin and not sensitising．The studies on rabbits resulted in scoring the substance as slightly irritating to eyes．It shows very low acute toxicity with LD50 equal $3550 \mathrm{mg} / \mathrm{kg}$ bw in oral exposure and LD50＞ $10000 \mathrm{mg} / \mathrm{kg}$ bw in dermal exposure．Overall， the Sodium Chloride is considered to be safe when used as intended．

## OXICOLOGICAL PROFILE

AcuteToxicology：Reported human case of acute gastric toxicity induced by ingestion of a coarse salt solution（nearly 16 grams）of smaller volume（ $0.23 \mathrm{~g} / \mathrm{kg}$ versus 0.5 to $1 \mathrm{~g} / \mathrm{kg}$ ）but higher concentration than in animal experiments．This concentration explains the gastric lesions．The potential severe gastric toxicity of coarse salt，a common ingredient（ECHA data）
Eye Irritation：The substance was tested in vivo in rabbits to examine ocular irritation after application．The studies resulted that the substance causes slightly irritation．（ECHA）
Genotoxicity：In vitro：positive（mouse lymphoma L5178Y cells）；In vivo：positive（rat）（ECHA）
LD50：LD50（oral，rat） $3550 \mathrm{mg} / \mathrm{kg}$ bw，Description：Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance．LD50（dermal，rabbit）＞ $10000 \mathrm{mg} / \mathrm{kg}$
ADI（Acceptable Daily Intake）：ADI $180 \mathrm{mg} / \mathrm{kg}$ of sodium expressed as sodium chloride，．Recommended Daily Intake（RDI） $17 \mathrm{mg} / \mathrm{kg}$ ．WHO and the Food and Agriculture Organization（FAO） recommended the consumption of less than 5 grams sodium chloride（or 2 grams sodium）per day as a population nutrient intake goal，while ensuring that the salt is iodized（WHO，2003）（ECHA

## data）

OAEL Dermal：The NOAEL value was not found，however，based on a history of safe use，this chemical material is considered safe for use in cosmetics．The chemical is unlikely to produce systemic toxicity following skin contact
OAEL Oral：LOEL $2533 \mathrm{mg} / \mathrm{kg}$ bw．Study type：Repeated dose toxicity．Endpoint：chronic toxicity．Method：OECD Guideline 453 （Combined Chronic Toxicity／Carcinogenicity Studies）．Source date：1986．MoS was calculated based on this data（ECHA）
Safety evaluation：Sodium chloride is related to fatalities from acutely eating salt especially
skin Irritation：In vivo studies on rabbits（intact and abraded skin）were conducted．The substance was found to be non－irritating when applied on the intact skin in the undiluted form or solution． The irritation may appear when the substance was contact with abraded skin，depends on the concentration of the salt solution．The test report concluded that strong solutions（20\％or better） result in scab and scar formation after a few applications．Weaker solutions（ $10 \%$ or $5 \%$ ）produce slight irritation which delays healing without scarring（ECHA）
Skin Sensitisation：The substance was tested in vitro to examine skin sensitising potential．Endpoint：The substance was found to be non－sensitising．Species：mice；Report date：1995；Source： CHA
Carcinogenicity：Not associated with carcinogenic，mutagenic and reprotoxic（CMR）chemicals．Not classified as a carcinogen．（ECHA）
OTHER
LC50（Environmental）：LC50 bluegill sunfish－Lepomis macrochirus， $5840 \mathrm{mg} / \mathrm{L}, 96 \mathrm{~h}$ ；EC50 Nitzschia linearis， $2430 \mathrm{mg} / \mathrm{L}, 120 \mathrm{~h}$（study Setter 1982）（ECHA）

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Toluene (Antioxidant, Solvent,Perfuming)
EU INCI: Toluene
CTFA INCI: Toluene
Trade Name: Toluene.
CAS Number: $108-88-3$
CAS Number: 108-88-3.
EINECS Number: 203-625-9
Symbol: C7H8.
Molecular Weight: 92.138
Synonyms: Tol; Toluol; Methylbenzene
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Benzene like
Viscosity: $0.56 \mathrm{mPa} \cdot \mathrm{s}$ (dynamic) at $20^{\circ} \mathrm{C}$
Water Solubility: $587 \mathrm{mg} / \mathrm{L}$ at $25^{\circ} \mathrm{C}$
Boiling Point: $110.6^{\circ} \mathrm{C}$
Colour: Colourless
Density: $0.866 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
Flammability: Highly flammable liquid and vapour
Flash Point: $4.4^{\circ} \mathrm{C}$
Vapour Pressure: 3089 Pa at $21.1^{\circ} \mathrm{C}$
LogP Log Kow: 2.73 at $20^{\circ} \mathrm{C}$
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Liquid.

## REGULATORY REQUIREMENTS

Labelling Requirements: Keep out of reach of children. To be used by adults only.
IFRA Standard: Toluene should not be used as a fragrance ingredient. The level of Toluene has to be kept as low as practicable and should never exceed 100 ppm in the fragrance compound/mixture or fragrance oil. Implementation dates: For new submissions*: May 6, 2004For existing fragrance compounds. May 6,2005
CLP Regulation (EC) No 1272/2008: Classified as: Flam. Liq. 2 H225, Repr. 2 H361d ***, Asp. Tox. 1 H304, STOT RE 2 * H373 **, Skin Irrit 2 H315, STOT SE 3 H336
REACH Annex XVII: Listed in the Annex XVII. Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than $0,1 \%$ by weight where the REACH SVHC: Not included in SVHC list (Annex XIV)
Regulatory Controls: $25 \%$, Keep out of reach of children, To be used by adults only. Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than $0,1 \%$ by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.
GHS Classification: H225: Highly flammable liquid and vapour. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H336: May cause drowsiness or dizziness. H361: Suspected of damaging fertility or the unborn child. H361d: Suspected of damaging the unborn child via inhalation. H373: May cause damage to organs <central nervous system via inhalation.>
H412: Harmful to aquatic life with long lasting effects
Region : Europe Type : Cosmetic Restriction : Nail products 25\% Label Review : Keep out of reach of children. To be used by adults only
Region : UK Type: Cosmetic Restriction : Nail products $25 \%$ Label Review : Keep out of reach of children. To be used by adults only
TOXICITY REVIEW
General Toxicity Review: Toluene is suspected of damaging the unborn child via inhalation. It may cause damage to central nervous system via inhalation. In vivo studies indicated that toluene is slightly irritating to eyes and causes skin irritation. It was found to be not sensitising. It shows low acute toxicity with median lethal dose at $5580 \mathrm{mg} / \mathrm{kg}$ bw via oral route of exposure and above 5 $000 \mathrm{mg} / \mathrm{kg}$ bw via dermal route of exposure. Repeated dose toxicity studies have indicated NOAEL at $625 \mathrm{mg} / \mathrm{kg}$ bw/day which demonstrates moderate toxicity via oral route of exposure.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo to examine ocular irritation potential. Endpoint: Slightly irritating; Method: according to OECD Guideline 405; Species: rabbit; Report date: 1995; Source: ECHA.
Genotoxicity: In vitro: negative; Method: according to EU Method B.13/14; Species:S. typhimurium TA 1535, TA 1537, TA 98 and TA 100; Report date: 1983; Source: ECHA. In vivo: negative; Species: rat; Route of administration: intraperitoneal; Report date: 1978; Source: ECHA.
nhalation: May cause drowsiness or dizziness
D50: LD50 $5580 \mathrm{mg} / \mathrm{kg}$ bw; Route of exposure: oral, Species: rat, Method: according to EU Method B.1, Report date: 1975. Description: Acute toxicity studies via oral route of administration in rats demonstrated very low toxicity of the substance. LD50 > 5 000 mg/kg bw; Route of administration: dermal, Species: rabbit, Source: Range-finding toxicity data: List VII, Report date: 1969 . Description: Acute toxicity studies via dermal route of exposure in rabbits (occlusive type of coverage) showed that the substance has very low skin toxicity. (ECHA)
NOAEL Inhalation: NOAEC $1131 \mathrm{mg} / \mathrm{m}^{3}$ air $(1.131 \mathrm{mg} / \mathrm{L})$. Study type experimental study. Endpoint chronic toxicity: inhalation. Species rat. Duration 24 months. Methods OECD Guideline 453 .
Reference date 1983 (ECHA)
NOAEL Oral: NOAEL $625 \mathrm{mg} / \mathrm{kg}$ bw/day Study type experimental study. Endpoint sub-chronic toxicity: oral. Species rat. Duration 13 weeks. Methods EU Method B. 26 . Reference date 1990 (ECHA)
Reproductive Toxicology: NOAEC: 600 ppm ( $2261 \mathrm{mg} / \mathrm{m} 3$ ); Endpoint: Suspected of damaging fertility or the unborn child. Species: rat; Route of administration: inhalation; Report date: 1996; Source: ECHA.
Skin Irritation: The substance was tested in vivo to examine skin irritation potential. Endpoint: Causes skin irritation; Method: according to EU Mathod B.4; Species: rabbit; Report date: 1988; Source: ECHA.
(the substance was tested in vivo to examine skin sensitising potential. Endpoint: not sensitising; Method: according to EU Method B.6; Species: guinea pig; Report date: 1996; Source: ECHA.

OTHER
(Environmental): LC50: $25.7 \mathrm{mg} / \mathrm{L}$ air (male) and $30 \mathrm{mg} / \mathrm{L}$ air (female- analytical); Method: according to OECD Guideline 403; Species: rat; Route of administration: inhalation; Report date: 1980; Source: ECHA
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Pyridine (Not Reported)
EU INCI: Pyridine.
CAS Number: $110-86$
EINECS Number: 203-809-9
EINECS Number
Molecular Weight: 79.10
Synonyms: Azabenzene
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
$\mathrm{pH}: 8.81$ at $20^{\circ} \mathrm{C}$
Viscosity: $0.879 \mathrm{mPa} \cdot \mathrm{s}$ (dynamic) at $20^{\circ} \mathrm{C}$
Water Solubility: $1000 \mathrm{~g} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$
Partial Coefficient logPow: 0.64 at $20^{\circ} \mathrm{C}$
Boiling Point: $115.2^{\circ} \mathrm{C}$ at 101325 Pa
Colour: Colourless
Density: $0.982 \mathrm{~g} / \mathrm{cm} 3$ at 20 C
Flammability: Highly flammable liquid and vapour.
Flash Point: $20^{\circ} \mathrm{C}$
Melting Possure: 26.7 hPa at $20^{\circ} \mathrm{C}$
Physical State: Liquid

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Classified as: Flam. Liq. 2 H225; Acute Tox. 4 * H332; Acute Tox. 4 * H312; Acute Tox. 4 * H302
REACH Annex XVI: Pyridine, alkyI derivs. listed in the Annex XVI - Mutagens category 1 B
REACH SVHC: Not included in SVHC.
GHS Classification: H225: Highly Flammable liquid and vapour. H332: Harmful if inhaled. H312: Harmful in contact with skin. H302: Harmful if swallowed. H315: Causes skin irritation. H319: Causes serious eye irritation..
Region : Europe Type : Cosmetic Restriction : Prohibited if it contains $>0.1 \% \mathrm{w} / \mathrm{w}$ benzene
Region : UK Type : Cosmetic Restriction: Prohibited if it contains $>0.1 \% \mathrm{w} / \mathrm{w}$ benzene
Region: Europe Type: Cosmetic Restriction: Prohibited
TOXICITY REVIEW
General Toxicity Review: In vivo studies resulted in scoring the chemical as serious eye irritant and skin irritant. The substance was found to be not sensitising. It shows moderate acute toxicity otential above $800 \mathrm{mg} / \mathrm{kg}$ bw via oral route and low acute toxicity potential above $1000 \mathrm{mg} / \mathrm{kg}$ bw via dermal route. Repeated dose toxicity study indicated NOAEL at $7 \mathrm{mg} / \mathrm{kg}$ bw/day for oral route. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo to examine ocular irritation potential. Endpoint: Causes serious eye irritation. Species: rabbit; Report date: 1978; Source: ECHA.
Genotoxicity: In vitro: negative; Method:according to OECD Guideline 471; Species/ strain: S. typhimurium TA 1535, TA 1537, TA 98 and TA 100; Report date: 1993; Source: ECHA. in vivo: eport date: 1997; Source: ÉCHA
 ECHA LD50 (dermal, rabbit) $>5000 \mathrm{mg} / \mathrm{kg}$ bw Description: Acute toxicity studies via dermal route of expecies: rabbit, Report date: 1973, Method: according to OECD Guideline 402. Source: toxicity. (ECHA)
NOAEL Inhalation: NOAEC 290 ppm ( $1105 \mathrm{mg} / \mathrm{m} 3 / 1.105 \mathrm{mg} / \mathrm{L}$ ) Study type: short-term repeated dose toxicity: inhalation; vapour, nose only, Report date:1984, Method: according to OECD Guideline 412; Source: ECHA
NOAEL Oral: NOAEL $7 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: chronic toxicity: oral; Species: rat, Report date: 2000, Method: EPA OTS 798.3260 (Chronic Toxicity) Source: ECHA. MoS was calculated based on this data.
Skin Irritation: The substance was tested in vivo to examine skin irritation potential. Endpoint: Causes skin irritation. Species: rabbit; Report date: 1977; Source: ECHA.
kin Sensitisation substance was tested in vivo to examine skin sensitising potentia. Endpoint Not sensitising; Report date: 1981; Source: ECHA
Carcinogenicity: NOAEL $7 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: Carcinogenicity (chronic, rat) There is insufficient information to classify pyridine as human cacrcinogen according to IARC.
OTHER
LC50 (Environmental): LC50 4900 ppm, Route of exposure: inhalation: vapour, nose only, Method: 4h, according to EPA OPPTS 870.1300, Report date: 1984; Source: ECHA.
eurofins

# Cocoa Hand \＆Body Butter 2000mg（2022－753－5050）（variant）CPSR EU／UK passed under condition 

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## DENTIFICATION

Arsenic and its compounds（Not Reported）
INCI：Arsenic and its compounds（Prohibited）
TFA INCI：Arsenic and its compounds（Prohibited）．
Chinese：砷及其化合物．
INECS Number：231－148－6
Symbol：As．
Jlecular Weight： 74.92

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Odour：Odourless
xidising Properties：Non oxidising
axter Solubility：Insoluble
xidising Properties：Non oxidising
Particle Size：The smallest particle size is 0.5 mm and the most common specification is $2-15 \mathrm{~mm}$ ．Since the final product is deliberately prepared with these specifications，further experimental verification of the particle size distribution is not considered to be required（in accordance with section 1，Annex XI of Regulation（EC）1907／2006）．
olour：Grey，metallic
ensity： $5.6 \mathrm{~g} / \mathrm{cm} 3$ at $22.4^{\circ} \mathrm{C}$
（powder）was not flammable in a study where an attempt was made to ignite a pile of the metal powder with a flame
Flash Point：The study does not need to be conducted because the flash point is only relevant to liquids and low melting point solids
apour Pressure： 1 Pa at $280^{\circ} \mathrm{C}$ to 100 kPa at $601^{\circ} \mathrm{C}$
Melting Point： $616^{\circ} \mathrm{C}$

## REGULATORY REQUIREMENTS

CLP Regulation（EC）No 1272／2008：Classified as：Acute Tox． 3 ＊H331；Acute Tox． 3 ＊H301；Aquatic Acute 1 H400；Aquatic Chronic 1 H410
REACH Annex XVII：Listed in the Annex XVII．Conditions of restriction：1．Shall not be placed on the market，or used，as substances or in mixtures where the substance or mixture is intended for use to prevent the fouling by micro－organisms，plants or animals of：－the hulls of boats，－cages，floats，nets and any other appliances or equipment used for fish or shellfish farming，－any totally partly submerged appliances or equipm． 3 ．Shal REACH SVHC：Not included in SVHC．
GHS Classification：H301：Toxic if swallowed．H331：Toxic if inhaled．H350：May cause cancer．H360：May damage fertility or the unborn child．H372：Causes damage to organs through prolonged or repeated exposure．H410：Very toxic to aquatic life with long lasting effects
Region ：Europe Type ：Cosmetic Restriction ：Prohibited in cosmetic products．
Region：UK Type ：Cosmetic Restriction ：Prohibited in cosmetic products．

## TOXICITY REVIEW

General Toxicity Review：Arsenic and its compounds are known to have carcinogenic activity．In vivo studies resulted in scoring the material as causing irreversible effects on eyes and corrosive to skin．Skin sensitising study was not necessary due to the corrosive activity of the compound．It shows high acute toxicity potential with median lethal dose at $144 \mathrm{mg} / \mathrm{kg}$ bw via oral route．Dermal route of exposure median lethal dose at $>2400 \mathrm{mg} / \mathrm{kg}$ bw．Repeated dose toxicity study determined NOAEL oral at $0.0008 \mathrm{mg} / \mathrm{kg}$ bw／day．

OXICOLOGICAL PROFILE
Eye Irritation：The instillation of Arsenic Metal，Powder $<0.2 \mathrm{~mm},>99.99 \%$ into the eye of the male rabbit resulted in corneal opacity，congestion，swelling，moderate circumcorneal hyperemia，in diffuse beefy red conjunctivae and in chemosis．Based on the results，the substance causes serious eye damage and according to the EC Regulation No． $1272 / 2008$ is classified Category 1.
Genotoxicity：In vitro：negative（E．coli，other：WP2（trpE），WP2s（trpE，uvrA），WP6（trpE，polA1），WP10（trpE，recA1），WP44s－NF（trpE，uvrA，tif－1／sfi－），WP44s－NF amp＾r and WP2s（ ））；In vivo： positive（mouse）（ECHA）
inhalation：Toxic if inhaled
LD50：LD50（oral，mouse）$=144 \mathrm{mg} / \mathrm{kg}$ bw．LD50（dermal，rat ）＞ $2400 \mathrm{mg} / \mathrm{kg}$ bw．Description：Acute toxicity studies via oral route of administration in rats demonstrated moderate toxicity．Acute toxicity studies via dermal route of exposure showed that the substance has low skin toxicity（ECHA）．
． $0.008 \mathrm{mg} / \mathrm{kg}$／day Study type：repeated dose toxicity．Endpoint：chronic toxicity．Route of administration：oral．Species：rat Reference type： publication＇Results of a long－term carcinogenicity bioassay on Sprague－Dawley rats exposed to sodium arsenite administered in drinking water＇．Report date：2006．Source：ECHA．MoS was alculated based on this data．
ADME（Absorption，Distribution，Metabolism，Excretion）：Absorption of water soluble inorganic arsenic compounds through the G．I．tract is very high．In humans，absorption rates of $96.5 \%$ for列 trisulfide and lead arsenate was reported to be only $20-30 \%$ in hamsters（Marafante and Vahter，1987）．In tests on humans，absorption of the insoluble arsenic selenide appeared to be neglible as indicated by the absence of an increase in urinary arsenic excretion（Mappes，1977）．Following absorption of trivalent or pentavalent arsenic compounds，arsenic is initially accumulated in the liver， kidney，lung，spleen，aorta，and skin．With the exception of the skin，clearance from these organs is rapid．Arsenic is also extensively deposited in the hair and nails（U．S．EPA，1984）．Arsenic compounds are subject to metabolic transformation．In both humans and animals，pentavalent arsenic compounds are reduced to trivalent forms and then methylated in the liver to less toxic methylarsinic acids（ATSDR，1989）．Arsenic is cleared from the body relatively rapidly and primarily in the urine．Urinary excretion rates of $80 \%$ in 61 hr following oral doses and $30-80 \%$ in $4-5$ days following parenteral doses have been measured in humans（Crecelius，1977；Hunter et al．，1942）．
Skin Irritation：After treatment with the test item arsenic metal，powder（particle size＜ 0.2 mm ，purity＞ $99.99 \%$ ）the mean relative absorbance value decreased to $8.8 \%$ ．This value is below the （GMPT）doe not suggest that the studied ary 2）．（ECH
allergens（ECHA）．Skin contact with inorganic arsenic dusts in occupationally （U．S．EPA，1984；Pinto and McGill，1953；Holmqvist，1951）
Carcinogenicity：Carcinogenic category 1A，1B

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Phenol (Not Reported)
EU INCI: Phenol (Prohibited)
CTFA INCI: Phenol (Prohibited)
CNDA INCI: Phenol (Prohibited).
Chinese: 苯酚.
CAS Number: 108-95-2
EINECS Number: 203-632-7
Symbol: C6H6O.
Synonyms: carbolic acid; Hydroxybenzene; Phenic acid; Oxybenzene; Phenylic acid; Benzenol; Monophenol; Phenyl hydrate; Phenylic alcohol; Phenyl hydroxide

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Odour: Characteristic, phenol
Oxidising Properties: Not oxidising
Viscosity: 3.437 mPax s at $50^{\circ} \mathrm{C}$
Water Solubility: $84 \mathrm{~g} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$
Partial Coefficient logPow: 1.47 at $30^{\circ} \mathrm{C}$
Boiling Point: $181.8-181.9^{\circ} \mathrm{C}$ at 101325 Pa
Colour: Colourless to light yellow or light pink
Density: $1.07 \mathrm{~g} / \mathrm{cm}^{3}$ at $20^{\circ} \mathrm{C}$; 1
lash Point: $81^{\circ} \mathrm{C}$ at 101325
Vapour Pressure: 0.2 hPa at $20^{\circ} \mathrm{C}$
Melting Point: $40.9^{\circ} \mathrm{C}$ at 101325 Pa
Physical State: Solid.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: CLassified as: Muta. 2 H341; Acute Tox. 3* H331; Acute Tox. 3* H311; Acute Tox. 3 * H301; STOT RE 2 * H373 **; Skin Corr. 1B H314. Specific concentration limits: *Skin Corr. 1B; H314: C $\geq 3$ \% Skin Irrit. 2; H315 $1 \% \leq \mathrm{C}<3 \%$ Eye Irrit. 2 ; H319:1 \% $\leq \mathrm{C}<3 \%$
REACH Annex XVII: Not listed in the Annex XVII.
GHS Classification: H341 Suspected of causing genetic defects. H331 Toxic if inhaled. H311 Toxic in contact with skin. H301 Toxic if swallowed. H314 Causes severe skin burns and eye damage. GHS Classification: H341 Suspected of causing genetic defects. H331 Toxic
Region : Europe Type : Cosmetic Restriction: Prohibited
Region : UK Type: Cosmetic Restriction : Prohibited

## TOXICITY REVIEW

General Toxicity Review: Phenol causes severe skin burns and eye damage. The substance is toxic after skin contact, inhalation and ingestion. May cause damage to organs and genetic defects. Overall, the ingredient is considered to be of toxicological concern when used in costumer products. Only unavoidable trace levels are allowed

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as corrosive (ECHA)
Genotoxicity: In vitro: positive (Chinese hamster Ovary (CHO)); In vivo: negative (mouse) (ECHA)
LD50: LD50 (oral, rat) $340 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 401 (Acute Oral Toxicity); Description: Acute toxicity studies via oral route of administration in rats demonstrated high toxicity of the substance. LD50 (dermal, rat) $660 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 402 (Acute Dermal Toxicity); Description: Acute toxicity studies via dermal route of exposure in rats showed that the substance has high skin toxicity. (ECHA)
NOAEL Dermal: NOAEL $130 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: repeated dose toxicity; Endpoint:short-term repeated dose toxicity: dermal; Species:rabbit; Bibliographic source:Arch Ind Hyg Occ Med 2: 454-461; ECHA, MoS was calculated based on this data
NOAEL Inhalation: NOAEC $100 \mathrm{mg} / \mathrm{m}^{3}$ air Study type: repeated dose toxicity; Endpoint:sub-chronic toxicity: inhalation; Species:rat; Bibliographic source:Amer J Clin Pathol 14: 273-277; ECHA, MoS was calculated based on this data
NOAEL Oral: NOAEL $450 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: repeated dose toxicity; Endpoint:chronic toxicity: oral; Species:rat; Guideline: OECD 451 (carcinogenicity study); Bibliographic source:NIH Publication No. 80-1759, ECHA, MoS was calcula based on this data
Skin Sensitisation: Non-LLNA in vivo examinations were conducted, using guinea pig, modified Buehler test, to find evidence for skin sensitisation. The test results showed that the chemical is nonsensitising. (ECHA)

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

1，4－Dioxane（Not Reported）
EU INCI：1，4－Dioxane（Prohibited）
CTFA INCI：1，4－Dioxane（Prohibited）．
Chinese：二唡烷．
CAS Number：123－91－1
EINECS Number：204－661－8．
Symbol：C4H8O2
Molecular Weight： 88.11
escription：The chemical material is a heterocyclic organic compound and is classified as an ether，also know as Dioxane．It is a colorless liquid with a faint sweet odo
Synonym：Dioxane p－Dio
ne，1，4－Diethylene dioxide，diethylene ether，Tetrahydro－p－dioxin，Tetrahydro－1，4－dioxin


## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Odour：Ethereal
Water Solubility： $1000 \mathrm{~g} / \mathrm{l}$ at $20^{\circ} \mathrm{C}$
Partial Coefficient logPow：-0.42 at $20^{\circ} \mathrm{C}$
Boiling Point： $100.8-101.5^{\circ} \mathrm{C}$ at 1013 hPa
Colour：Colourless
Density： 1.03 at $20^{\circ} \mathrm{C}$
Flammability：Highly Flammable liquid and vapour
lash Point： $11^{\circ} \mathrm{C}$（closed cup）
Melting Point： $11.8^{\circ} \mathrm{C}-11.9^{\circ} \mathrm{C}$
Physical State：Liquid．

## REGULATORY REQUIREMENTS

CLP Regulation（EC）No 1272／2008：Classified as：Flam．Liq． 2 H225；Carc． 2 H351；Eye Irrit． 2 H319；STOT SE 3 H335；Carc．1B H350
REACH SVHC：Included in SVHC．Reason of inclusion：Carcinogenic（Article 57 （a））Equivalent level of concern having probable serious effects to the environment（Article 57 （f）－environment） Equivalent level of concern having probable serious effects to human health（Article 57 （f）－human health）
Regulatory Controls：It is noted that the SCCS opinion has recently proposed the safe level of the carcinogen impurity named 1，4－dioxane（CAS No 123－91－1）at＜10 ppm（ $0.001 \%$ ）in the finished HS Classificatio
（
：UK Type ：Cosmetic Restriction ：Prohibited

## TOXICITY REVIEW

General Toxicity Review：Dioxane is suspected of causing cancer．The substance causes serious eye irritation but is not irritating to the skin．It shows very high systemic toxicity after oral exposure．Overall，the ingredient is considered to be of toxicological concern when used in consumer products．Only unavoidable trace levels are allowed．

## TOXICOLOGICAL PROFILE

Eye Irritation：The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as seriously irritating．（ECHA）
halation：May cause respiratory irritatio
D50：LD50（oral，rat） $5150 \mathrm{mg} / \mathrm{kg}$ bw；OECD Guideline 401 （Acute Oral Toxicity）；Description：Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the
NOAEL Inhalation：NOAEC $>400 \mathrm{mg} / \mathrm{m}^{3}$ air Study type：repeated dose toxicity；Endpoint：chronic toxicity：inhalation；Species：rat；Bibliographic source：Toxicol．Appl．Pharmacol．30，287－298；
ECHA，MoS was calculated based on this data
NOAEL Oral：NOAEL $9.6 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：repeated dose toxicity；Endpoint：chronic toxicity：oral；Species：rat；Bibliographic source：Regulatory Toxicology and Pharmacology 88；ECHA， MoS was calculated based on this data
ADME（Absorption，Distribution，Metabolism，Excretion）：In vitro study showed that the substance can penetrate human skin when occluded even though to a small extend，but rapidly evaporates without occlusion（Bronaugh，1982）．As a worst case scenario 100\％dermal absorption was chosen．The major metabolite in human urine：$\beta$－hydroxyethoxyacetic acid（HEAA；Young et al．，1977）． The reactive metabolite：2－Hydroxyethoxyacetaldehyde（ECHA）
kin Irritation：In the in vil
kin Sensitisation：Non－LINA in vivo examinations were conducted，using guinea pig maximisation test，to find evidence for skin sensitisation．The test results showed that the chemical is non－ ensitising．（ECHA）

OTHER
Biodegradability（Environmental）：Based on the available experimental and estimated data，the substance is evaluated to be not readily biodegradable according to OECD criteria（freshwater） （ECHA）
cological toxicity：LC50＞ $100 \mathrm{mg} / \mathrm{L}$（Oryzias latipes， 21 d，2020，OECD Guideline 204 （Fish，Prolonged Toxicity Test：14－day Study））；NOEC＝ $145 \mathrm{mg} / \mathrm{L}$（Pimephales promelas， 32 d ，2002， OECD Guideline 210 （Fish，Early－Life Stage Toxicity Test））；EC50＞ $1000 \mathrm{mg} / \mathrm{L}$（Daphnia magna，48h，2020，OECD Guideline 202 （Daphnia sp．Acute mmob （Dilisation Test））；NOEC＝ $1000 \mathrm{mg} / \mathrm{L}$ （Daphnia magna， 21 d ，2002，OECD Guideline 211 （Daphnia magna Reproduction Test））；EC5＝ $2700 \mathrm{mg} / \mathrm{L}$（Pseudomonas putida，16h，2002，DIN 38412－8（Pseudomonas Zellvermehrungshemmtest））；EC50＞ $1000 \mathrm{mg} / \mathrm{L}$（Pseudokirchneriella subcapitata，72h．1996，OECD Guideline 201 （Alga，Growth Inhibition Test））（ECHA）
eurofins

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

ron Powder (Opacifying,Reducing)
EU INCI: Iron Powder
TFA INCI: Iron Powder
CNDA INCI: Iron Powder
Chinese: 铁粉.
CAS Number: 7439-89-6.
EINECS Number: 231-096-4.
ynbol.
eight 55.845
Description: Iron Powder is the element consisting of powdered metallic iron
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Oxidising Properties: No oxidising
Vater Solubility: Iron powder is insoluble at $22^{\circ} \mathrm{C}$
Oxidising Properties: No oxidising properties
Boiling Point: $2861^{\circ} \mathrm{C}$ at 101325 Pa
Colour: Grey to black, metallic
Density: $7.87 \mathrm{~g} / \mathrm{cm}^{\wedge} 3$ at $20^{\circ} \mathrm{C}$
Melting Point: $1538^{\circ} \mathrm{C}$ at 101325 Pa
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Solid
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV)
GHS Classification: Not classified as per GHS. Self classified: H228: Flammable solid. H251: Self-heating; may catch fire.
Region : Europe Type : Cosmetic Restriction: None
Region: UK Type: Cosmetic Restriction: None
TOXICITY REVIEW
General Toxicity Review: The substance is not associated with skin irritation, skin sensitisation and is not expected to cause an eye irritation. It is practically non-toxic with LD50 $98.6 \mathrm{~g} / \mathrm{kg}$ bw $/$ $98600 \mathrm{mg} / \mathrm{kg}$ bw for oral exposure and LC50>250 mg/m ${ }^{3}$ air for inhalation exposure. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is considered to be safe when used as intended.

## TOXICOLOGICAL PROFILE


Genotoxicity: In vitro: negative (strains TA97a, TA98, TA 100, TA102, TA1535, TA1537 \& TA1538 of Salmonella typhimurim) (ECHA)
D50: LD50 (oral, rat) $98.6 \mathrm{~g} / \mathrm{kg}$ bw / $98600 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 401 (Acute Oral Toxicity); Description: Acute toxicity studies via oral route of administration in rats demonstrated that the substance is practically non-toxic. (ECHA) LC50 (inhalation, rat) $>250 \mathrm{mg} / \mathrm{m}^{3}$ air. Description: The substance when tested for acute toxicity via inhalation for 6 hours (dust) was found to be ractically non-toxic.(ECHA)
(
kin irritation.
non-sensitising. (ECHA)

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Manganese (Not Reported)
EU INCI: Manganese.
CAS Number: 7439-96-5.
INECS Number: 231-105-1.
Symbol: Mn.
Molecular Weight: 54.938.

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Water Solubility: $0.7 \mathrm{mg} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$
Water Solubility: 0.7 m
Boiling Point: $1,962^{\circ} \mathrm{C}$
Density: $7.4 \mathrm{~g} / \mathrm{cm} 3$ at 20 deg C
Vapour Pressure: 0 Pa at $20^{\circ} \mathrm{C}$
Melting Point: $1246^{\circ} \mathrm{C}$
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Solid.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
CLP Regulation (EC) No 1272/2008: Not classifie
REACH Annex XVII: Not listed in the Annex XVII.
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV)
GHS Classification: Not classified as per GHS
Region: Europe Type : Cosmetic Restriction: None
Region : UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: The substance is not associated with skin irritation and sensitisation. Data derived from studies on reconstituted corneal epithelium demonstrate that the chemical is not irritating to eyes. It shows low acute toxicity with LD50 above $2000 \mathrm{mg} / \mathrm{kg}$ bw in oral exposure. Overall, the ingredient is considered to be safe when used as intended.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vitro / ex vivo (Reconstituted Corneal Epithelium) to examine ocular irritation after application. Based on the testing results the substance is classified as not irritating (ECHA)
LD50: LD50 (oral, rat) $>2000 \mathrm{mg} / \mathrm{kg}$
NOAEL Inhalation: NOAEL $0.5 \mathrm{u} / \mathrm{L}(0.5 \mathrm{ppm} / \mathrm{mg} / \mathrm{kg}$ ). Study type Repeated dose toxicity. Endpoint sub-chronic toxicity. Study date 2016 (ECHA) MoS was calculated based on this data
ADME (Absorption, Distribution, Metabolism, Excretion): Intestinal absorption has been estimated to be between 3 and $10 \%$ of the amount of manganese ingested and is a multiple-step process similar to and involving some of the same binding sites as in iron absorption (EPA 1995). Experiments with isolated rat intestines indicate that manganese absorption is carrier-mediated with saturation occurring at 0.5 mM (Testolin et al. 1993). The absorption of manganese by inhalation depends on the particle size. The larger particles are cleared from the respiratory tract by the cilia and swallowed; whereas, the fine particles ( $<2.5$ microns) are deposited in the lungs and must be cleared by absorption into the blood and lymph circulation (EPA 1995). It is estimated that 60 to $70 \%$ of the inhaled particles are eventually swallowed (Stokinger 1981). Once absorbed, manganese is transported to organs rich in mitochondria (in particular the liver, pancreas, and pituitary) where it is rapidly concentrated. Accumulation of manganese in the central nervous system following an intraperitoneal or intramuscular injection occurs slowly reaching a maximum in about 30 intraperitoneal injection and about 55 days for intramuscular injection (Stokinger 1981).
Skin Irritation: In the in vitro / ex vivo studies on the human skin model the substance was found to be not irritating and not corrosive. (ECHA)
Skin Sensitisation: LLNA in vivo examinations were conducted, using mouse local lymph node assay (LLNA) test, to find evidence for skin sensitisation. The test results showed that the chemical is not sensitising. (ECHA)

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Chromium (Not Reported)
EU INCI: Chromium (Prohibited)
CTFA INCI: Chromium (Prohibited)
Chinese: 铬.
CAS Number: 7440-47-3
EINECS Number: 231-157-5.
Symbol: Cr.
Molecular Weight: 52.00.

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Water Solubility: Practically insoluble.
Particle Size: D10 $57.5 \mu \mathrm{~m}$, D50 $104 \mu \mathrm{~m}$ and D90 $104.0 \mu \mathrm{~m}$.
Colour: Grey
Density: $7.19 \mathrm{~g} / \mathrm{cm}^{3}$ at $20^{\circ} \mathrm{C}$
Vapour Pressure: 1 atm at $2482{ }^{\circ} \mathrm{C} ; 130 \mathrm{~Pa}$ at $1610^{\circ} \mathrm{C}$
Melting Point: $1863{ }^{\circ} \mathrm{C}$
Microbiological stability: Not susceptible to microbiological contamination
Physical State: Solid.
REGULATORY REQUIREMENTS
LP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI.
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV).
Region : Europe Type : Cosmetic Restriction : Prohibited in cosmetic products
Region : UK Type : Cosmetic Restriction : Prohibited in cosmetic products.

## TOXICITY REVIEW

General Toxicity Review: In vivo studies resulted in scoring the chemical as not irritating to eyes and skin. Non-LLNA in vivo study indicated that the substance is not sensitising. It shows very low acute toxicity potential above $5000 \mathrm{mg} / \mathrm{kg}$ bw in oral administration route. Repeated dose toxicity study indicated NOAEL oral at $1216 \mathrm{mg} / \mathrm{kg}$ bw/day. It was reported that chromium agglomerates in lungs, liver, kidney and adrenals in people exposed to it daily. Workers exibit elevated chromium levels in the urine. Long term in vivo carcinogenicity studies of chromium mela and chromium (III) oxide have indicated that it does not pose a risk in repeated exposure.

## TOXICOLOGICAL PROFILE

Eye irritation: The substance was tested in vivo to examine ocular irritation potential. Endpoint: Not irritating; Method: according to OECD Guideline 405; Species: rabbit; Report date: 1988; Source:
Genotoxicity: In vitro: negative; Method: according to OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test); Species: Chinese hamster; Report date: 2005; Source: ECHA. In vivo: egative; Method: according to OECD Guideline 474, EU Method B. 12 and EPA OPP 84-2; Species: mouse; Report date: 1992; Source: ECHA.
LD50: LD50 (oral, rat) $>5000 \mathrm{mg} / \mathrm{kg}$ bw; Route of exposure: oral, Species: rat, Method: accrding to OECD Guideline 420, Report date: 1988; Description: Acute toxicity studies via oral route of dministration in rats demonstrated slight toxicity of the substance. Source. ECHA
information: read-across from supporting substance. Endpoint sub-chronic toxicity: inhalation. Species rat. Duration 13 (ECHA)
oxicity: oral Spartan (male) Study type migrated information: read-across from supporting substance, Endpoint short-term repeated dose mium(III) oxide was baked into bread at concentrations of $2 \%$ and $5 \%$ and this bread was fed to animals 5 days/week for a period of 90 ays.. Reference date 1975 (ECHA) 999; Source: ECHA
exposure, whereas chromium(VI) is more readily aretion): Chromium(III) and chromium(VI) exhibit different absorption characteristics. Chromium(iII) is poorly absorbed, regardiess of route of $(\mathrm{VI})$, but less than $0.5 \%$ of (he is more readily absorbed (Hamilton and Wetterhahn, 1988). In one study, for example, animals absorbed approximately $10 \%$ of an orally administered dose of Cr
 Barreras 1966). The detection of chromium in the urine serum, and red blood cells (RBC) of humans exposed in the workplace suggests that the metal is absorbed following inhalation exposure. Limited experimental data indicate that water-soluble inhaled $\mathrm{Cr}(\mathrm{VI})$ is absorbed rapidly (Langard et al., 1978).

Humans and animals exhibit similar puterns of distribution for chromium. Workers exposed to chromium by inhalation had la the metal in
fold, 2- to 4-fold 10 -fold and 10-to 50 -fold higher, respectively, than those in of controls (Langard, 1982). Workers also exhibit elevated chromium levels in the urine, serum [Cr(III) and $\mathrm{Cr}(\mathrm{VI})$ ] and RBC [Cr(VI) only] (ATSDR, 1989). Animals exposed by intratracheal or intravenous injection distributed both $\operatorname{Cr}(\mathrm{III})$ and $\mathrm{Cr}(\mathrm{VI})$ throughout the body, but mainly to the lungs, spleen, bone marrow, liver, and kidney (Bragt and van Dura, 1983; Hamilton and Wetterhahn, 1988). Chromium (given in drinking water to rats for one year as potassium chromate or chromic chloride and to dogs for 4 years as potassium chromate) was distributed to the bone (rat only), liver, kidney, and spleen (MacKenzie et al. 1958; Anwar et al., 1961). Other studies have demonstrated higher tissue levels in animals receiving $\mathrm{Cr}(\mathrm{VI}$ ) in the drinking water than those receiving $\mathrm{Cr}(\mathrm{III})$ (ATSDR, 1989).
Skin Irritation: The substance was tested in vivo to examine skin irritation potential. Endpoint: Not irritating; Method: according to OECD Guideline 404; Species: rabbit; Report date: 1988; Source: CHA
Skin Sensitisation: The substance was tested in vivo to examine skin sensitising potential. Endpoint: Not sensitising; Report date: 2009; Source: ECHA.
chromium would be a potential carcinogen. Human exposure observations and international carcinogenicity evaluations also conclude that trivalent chromium compounds are not classifiable for carcinogenicity. (ECHA)
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## DENTIFICATION

EU INCI: Zinc.
CTFA INCI: Zinc.
CNDA INCI: Zinc
CAS Number: 7440-66-6
EINECS Number: 231-175-3 .
Symbol: Zn.
Molecular Weight: 65.39.

## PHYSICOCHEMICAL

Odour: Odourless
Particle Size: D50 of zinc powder is $71 \mu \mathrm{~m}$, the D80 is $148 \mu \mathrm{~m}$
Colour: Light grey
Density: $7.1 \mathrm{~g} / \mathrm{cm} 3$
lammability: Non flammable
Melting Point: $409^{\circ} \mathrm{C}$
Physical State: Powder

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Classified as: Water-react. 1 H260; Pyr. Sol. 1 H250; Aquatic Acute 1 H400; Aquatic Chronic 1 H410
REACH Annex XVII: Not listed in the Annex XVII.
GHS Classification: H260: In contact with water releases flammable gases which may ignite spontaneously. H250: Catches fire spontaneously if exposed to air. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects.
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction : None
TOXICITY REVIEW
General Toxicity Review: In vivo studies resulted in scoring the chemical as not irritating to eyes and skin. Non-LLNA in vivo study indicated that the substance is not sensitising. It shows very low acute toxicity potential above $2000 \mathrm{mg} / \mathrm{kg}$ bw/day. Repeated dose toxicity study indicated NOAEL via inhalation $2.7 \mathrm{mg} / \mathrm{m} 3$ air and NOAEL oral at 3000 ppm , $15 \mathrm{mg} / \mathrm{kg}$ bw/day.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as not irritating. The substance may cause only LD50: LD50 (oral, rat) $>2000 \mathrm{mg} / \mathrm{kg}$ bw;OECD Guideline 401 (Acute Oral Toxicity); Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance. (ECHA)
NOAEL Inhalation: NOAEL $2.7 \mathrm{mg} / \mathrm{m}^{3}$ air (analytical) ( $0.0027 \mathrm{mg} / \mathrm{l}$ ). Study type: repeated dose toxicity: inhalation (aerosol - nose only, guinea pig, 1988 , principles of method: duration 5 day, exposure to ZnO particles $3 \mathrm{~h} / \mathrm{d}$ for 5 d ) (ref. ECHA)
NOAEL Oral: NOEL 3000 ppm Study type: repeated dose sub-chronic toxicity oral (rat, 1981, OECD 408); NOAEL $15 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: two-generation reproductive toxicity (oral, rat, 2007, OECD 416) MoS was calculated based on this data; NOAEL $88 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: developmental toxicity (oral, hamster, 1973 , principles of method: duration - $6-10$ days, dose 88 mg nSO4/kg bw)(ref. ECHA
ADME (Absorption, Distribution, Metabolism, Excretion): Gastrointestinal absorption of zinc is variable (20-80\%) and depends on chemical characteristics of the compound, on the amount of zinc in the body, and on the dietary levels of other nutrients (U.S. EPA, 1984). High dietary levels of phytate, calcium, or phosphorus reduce absorption, but protein enhances uptake (ATSDR, 1989). In individuals with normal zinc levels in the body, gastrointestinal absorption is $20-30 \%$. Information on pulmonary absorption is limited and complicated by the potential for gastrointestinal absorption following mucociliary clearance and swallowing. Zinc is present in all tissues, but the highest concentrations occur in the prostate gland (Bertholf, 1988). Concentrations in the kidney, liver, heart, and pancreas are also high (Stokinger, 1981). After absorption into the body, zinc becomes bound to protein complexes, the most important of which is metallothionein, which acts as a carrier and transport mechanism (Stokinger, 1981). As an element zinc is not metabolized per se; however, it is a vital component of many metalloenzymes such as carbonic anhydrase, which regulates CO2 exchange (Stokinger, 1981). Other enzyme systems in which zinc plays a role are RNA polymerase, superoxide dismutase, carboxypeptidase, isocitric dehydrogenase, alcohol dehydrogenase, and ceruloplasmin. Homeostatic mechanisms control zinc absorption and excretion. Metallothionein in the mucosal cells lining the gastrointestinal tract binds with zinc and regulates uptake in the body (ATSDR, 1989). Under conditions where there is a physiological excess of zinc, the metallothionein-zinc complex is eliminated from the body when the mucosal cells are sloughed off. Mass balance studies indicate that most zinc is excreted in the feces, with small amounts in the urine, sweat and semen (Schroeder et al., 1967); however, a significant amount may be lost in sweat in ot climates (Prasad et al., 1963)
Skin Sensitisation: Non-LLNA in vivo examinations were conducted, using guinea pig maximisation test, to find evidence for skin sensitisation. The test results showed that the chemical is nonsensitising. (ECHA)

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Magnesium (Reducing)
U INCI. Magnesium powder.
CTFA INCI: Magnesium powder
Trade Name: Magnesium rod.
CAS Number: 7439-95-4
Symbol: Mg.
Molecular Weight: 24.305
Description: Magnesium Powder is an inorganic metal consisting of powdered magnesium
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Water Solubility: $6.7 \mathrm{mg} / \mathrm{L}$ at $21{ }^{\circ} \mathrm{C}(\mathrm{pH} 10.8)$
Water Solubility: $6.7^{\circ} \mathrm{m}$
Particle Size: D50 $52.7 \mu \mathrm{~m}$
Colour: Silvery-white
Density: $1.76 \mathrm{~g} / \mathrm{cm} 3$ at $23.0^{\circ} \mathrm{C}+/-0.2^{\circ} \mathrm{C}$
Vapour Pressure: 1.33 hPa at $621^{\circ} \mathrm{C}$
Melting Point: $650^{\circ} \mathrm{C}$
Physical State: Solid
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Classified as. Water-react. 1 H260; Pyr. Sol. 1 H250
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC.
GHS Classification: H250: Catches fire spontaneously if exposed to air. H260: In contact with water releases flammable gases which may ignite spontaneously.
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: Magnesium powder is an reducing ingredient. It is not associated with skin, eye irritation and skin sensitisation. It shows slight toxicity with LD50 $>2000 \mathrm{mg} / \mathrm{kg}$ bw for oral exposure. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is

TOXICOLOGICAL PROFILE
Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as not irritating. (ECHA)
Developmental toxicity: NOAEL> $800 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: Toxicity to reproduction; Endpoint:developmental toxicity; Species:rat; Bibliographic source:Bull. Natl. Inst. Health Sci., 114: 16-20. 1996); ECHA

D50: LD50 (oral, rat) > $2000 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method); Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance. (ECHA)
NOAEL Oral: NOAEL $299 \mathrm{mg} / \mathrm{kg}$ bw Study type: Repeated dose toxicity; Endpoint:sub-chronic toxicity: oral. Endpoint sub-chronic toxicity: oral. Species: rat. Duration . 90 days Methods OECD Guideline 408. Reference date 2000 (ECHA) MoS was calculated based on this data
Read-across: Not susceptible to microbiological contamination
kin Irritation: In the in vitro studies the substance was found to be not irritating and not corrosive. (ECHA)
Skin Sensitisation: Non-LLNA in vivo examinations were conducted, using guinea pig maximisation test, to find evidence for skin sensitisation. The test results showed that the chemical is nonensitising. (ECHA)
Carcinogenicity: Not associated with CMR

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Cobalt (Not Reported)
EU INCI: Cobalt (Prohibited)
CTFA INCI: Cobalt (Prohibited)
Chinese: 钴.
CAS Number: 7440-48-4
EINECS Number: 231-158-0
Symbol: Co.
Molecular Weight: 58.93.

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Water Solubility: Practically insoluble, $2.94 \mathrm{mg} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$
Boiling Point: $2927^{\circ} \mathrm{C}$ at 101.325 kPa
Colour: Metallic
Density: $8.86 \mathrm{~g} / \mathrm{cm}^{3}$ at $20^{\circ} \mathrm{C}$
apour Pressure: 0 Pa at $20^{\circ} \mathrm{C}$
Melting Point: $1494{ }^{\circ} \mathrm{C}$
Physical State: Powder.
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Classified as: Carc. 1B H350; Muta. 2 H341; Repr. 1B H360F; Resp. Sens. 1, H334; Skin Sens. 1, H317; Aquatic Chronic 4, H413
REACH Annex XVII: Listed in Annex XVII. Reason: Carcinogens: Category 1 B; Reproductive toxicants: Category 1 B.
REACH SVHC: Not included in SVHC list (Annex XIV)
GHS Classification: H302: Harmful if swallowed. H317: May cause an allergic skin reaction. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H350: May cause cancer by inhalation. H361: Suspected of damaging fertility or the unborn child. H413. May cause long lasting harmfur effects to aquatic life.
Region : Europe Type: Cosmetic Restriction: Prohibited
Region : UK Type : Cosmetic Restriction : Prohibited

## TOXICITY REVIEW

General Toxicity Review: Cobalt is considered as unsafe and is prohibited in cosmetic products. The substance is eye irritating and may cause an allergic skin reaction. It is not expected to cause kin irritation It is slightly toxic with LD50 ca $550 \mathrm{mg} / \mathrm{kg}$ bw for oral exposure. Cobalt has low acute toxicity for dermal exposure with LD50>2 $000 \mathrm{mg} / \mathrm{kg}$ bw, It is highly toxic with LC50 < 0.05 $\mathrm{mg} / \mathrm{L}$ air for inhalation exposure. Overall, the ingredient is considered to be of toxicological concern when used in consumer products. Only unavoidable trace levels are acceptable

## OXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as irritating (ECHA).
Genotoxicity: Suspected of causing genetic defects. In vitro: negative (S. typhimurium, other: TA97a); In vivo: negative (rat) (ECHA).
nhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled
LD50: LD50 (oral, rat) ca. $550 \mathrm{mg} / \mathrm{kg}$ bw. Description: Acute toxicity studies via oral route of administration in rats showed that the substance is slightly toxic. LD50 (dermal, rat) > $2000 \mathrm{mg} / \mathrm{kg}$ bw. Description: Acute toxicity studies via dermal route of exposure in rabbits (semiocclusive type of coverage) showed that the substance has low skin toxicity. LC50 (inhalation, rat) < $0.05 \mathrm{mg} / \mathrm{L}$ air. Description: The substance when tested for acute toxicity via inhalation for 4 hours (dust) was found to be highly toxic. (ECHA)
NOAEL Inhalation: LOAEC $0.31 \mathrm{mg} / \mathrm{L}$ air Study type experimental study. Endpoint repeated dose toxicity: inhalation. Species rat. Duration 105 weeks. Methods Groups of 50 male and 50 female ats were exposed to aerosols containing $0,0.3,1.0$, or $3.0 \mathrm{mg} / \mathrm{m}^{3}$ cobalt sulfate heptahydrate 6 hours per day 5 days per week, for 105 weeks. Reference date 1999 (ECHA)
NOAEL Oral: NOAEL $3 \mathrm{mg} / \mathrm{kg}$ bw/day Study type experimental study. Endpoint sub-chronic toxicity: oral. Species rat. Duration 90 days. Methods OECD Guideline 408 . Reference date 2015 (ECHA) MoS was calculated based on this data
Sensitisation via inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Irritation: In the in vitro / ex vivo studies on the human skin model the substance was found to be not irritating and not corrosive. (ECHA
skin Sensitisation: May cause an allergic skin reaction
Carcinogenicity: May cause cancer

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Barium (Not Reported)
EU INCI: Barium.
CTFA INCI: Barium
CNDA INCI: Barium
CAS Number: 7440-39-3
EINECS Number: 231-149-1.
Symbol: Ba
Symbol: Ba.

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Colour: Silver- white
Density: $3.62 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
lammability: Flammable solid
Melting Point: $727^{\circ} \mathrm{C}$

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Classified as: Acute Tox. 4 *, H332; Acute Tox. 4 *, H302
EACH Annex XVII: Not listed in Annex XVII.
EACH
Regulatory Controls: Prohibited: Barium salts(barium chloride, barium gluconate, barium hexaferrite), with the exception of barium sulphide under the conditions laid down in Annex III, and of barium sulfate, lakes, salts and pigments prepared from colouring agents when listed in Annex IV
GHS Classification: H228: Flammable solid. H260: In contact with water releases flammable gases which may ignite spontaneously. H314: Causes severe skin burns and eye damage. H318:
Causes serious eye damage. H301: Toxic if swallowed..
Region : Europe Type : Cosmetic Restriction : Prohibited: Barium salts, with the exception of barium sulphide under the conditions laid down in Annex III, and of barium sulfate, lakes, salts and
Region : UK Type : Cosmetic Restriction: Prohibited: Barium salts, with the exception of barium sulphide under the conditions laid down in Annex III, and of barium sulfate, lakes, salts and pigments prepared from colouring agents when listed in Annex IV.

## TOXICITY REVIEW

General Toxicity Review: In vivo studies resulted in scoring the chemical as severely irritating to eyes and skin. It was not necessary to conduct skin sensitisation study due to the fact that the substance in contact with water forms strong base solution and causes damage to skin. The substance shows high toxicity potential via oral route of administration with median lethal dose at 132 $277 \mathrm{mg} / \mathrm{kg}$ bw. The German Institute of BfR recommends that cosmetic products (both for oral and not oral exposure) contain less than $10 \mathrm{mg} / \mathrm{kg}$ ( $0.01 \%$ ) of Ba in the produces as a part of the recommended safe level for heavy metals in cosmetics in Europe.

## TOXICOLOGICAL PROFILE

Eye Irritation: Based on the available toxicological information it causes serious eye damage
Genotoxicity: In vitro: negative; Method: according to OECD Guideline 486; Species: mouse lymphoma L5178Y cells; Report date: 2010; Source: ECHA
LD50: LD50 (oral) 132 to 277 mg barium $/ \mathrm{kg}$. Ingestion: Eating or drinking very large amounts of barium compounds that dissolve in water or in the stomach can cause changes in heart rhythm or paralysis in humans
ADI (Acceptable Daily Intake): TDI of 0.2 mg barium $/ \mathrm{kg}$ bw/day
NOAEL Oral: NOAEL $0.21 \mathrm{mg} / \mathrm{kg}$ bw. Study type. Clinical studies with 11 healthy men. Route of exposure: oral, drinking water (WHO)
Reproductive Toxicology: NOAEL 201.5 and $179.5 \mathrm{mg} \mathrm{Ba} / \mathrm{kg}$ bw/d to male and and female rats, respectively. Study type: Toxicity to reproduction. Endpoints: fertility, other. Species: rats. Route of exposure: oral: drinking water (ECHA)
Safety evaluation: Barium compounds such as barium acetate, barium chloride, barium hydroxide, barium nitrate, and barium sulfide that dissolve in water can cause harmful health effects. Barium carbonate does not dissolve in water, but does dissolve in the stomach; it can also cause harmful health effects.
Skin Irritation: Based on the available toxicological information it causes severe skin burns
Skin Sensitisation: Based on the available toxicological information it causes severe skin burns and therefore it is not necessary to conduct skin sensitisation study
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Selenium and its compounds（Not Reported）
EU INCI：Selenium and its compounds（Prohibited）
CTFA INCI：Selenium and its compounds（Prohibited）．
CNDA INCI：Selenium and its compounds（Prohibited）．
Chinese：硒及其化合物．
CAS Number：7782－49－2．
EINECS Number：231－957－4．
Symbol：Se．

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Water Solubility： $3.774 \mu \mathrm{~g} / \mathrm{L}$ at $21.2^{\circ} \mathrm{C}$
Boiling Point： $685^{\circ} \mathrm{C}$
Particle Size：L50 $15.83 \mu \mathrm{~m}$ ；L10 $3.35 \mu \mathrm{~m}$ ；L90 $54.93 \mu \mathrm{~m}$
Colour：Black
Density： $4.809 \mathrm{~g} / \mathrm{cm} 3$ at 20 deg C
Vapour Pressure： 0.133 Pa at $20^{\circ} \mathrm{C}$
Melting Point． $220.8^{\circ} \mathrm{C}$

Physical State：Solid．

## EGULATORY REQUIREMENTS

REACH Annex XVII：Not listed in the Annex XVII．
REACH SVHC：Not included in SVHC list（Annex XIV）
Regulatory Controls：Selenium and its compounds with the exception of selenium disulphide under the conditions set out under reference No 49 in Annex lil
GHS Classification：H301＋H331：Toxic if swallowed or if inhaled．H373：May cause damage to organs through prolonged or repeated exposure．H413：May cause long lasting harmful effects to quatic life．．
Region ：Europe Type ：Cosmetic Restriction ：Prohibited in cosmetic products．
Region ：UK Type ：Cosmetic Restriction ：Prohibited in cosmetic products．
TOXICITY REVIEW
General Toxicity Review：Selenium and its compounds is considered as unsafe and is prohibited in cosmetic products．There is no evidence on eye，skin irritation or sensitisation potential of the substance．It is practically non－toxic with LD50 $>5000 \mathrm{mg} / \mathrm{kg}$ bw（powder）in oral route of exposure．It is slightly toxic with LC50 $>5.67 \mathrm{mg} / \mathrm{L}$ air（analytical）（fine powder）for inhalation exposure． Overall，the ingredient is considered to be of toxicological concern when used in consumer products．Only unavoidable trace levels are acceptable．

## TOXICOLOGICAL PROFILE

Eye Irritation：Not irritating．The substance was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as not irritating（ECHA）．
Genotoxicity：In vitro：negative（mouse lymphoma L5178Y cells）；In vivo：negative（mouse）（ECHA）．
nhalation：Toxic if inhaled．
D50：LD0 $5000 \mathrm{mg} / \mathrm{kg}$ bw（oral，rat，OECD Guideline 401，1996）．LD50（oral，rat）＞ $5000 \mathrm{mg} / \mathrm{kg}$ bw Selenium（powder）．Description：Acute toxicity studies via oral route of administration in rats emonstrated that the substance is practically non－toxic（ECHA）．LC50（inhalation，rat）$>5.67 \mathrm{mg} / \mathrm{L}$ air（analytical）Selenium（fine powder）．Description：The substance when tested for acute xicity via inhalation for 4 hours（aerosol）was found to be slightly toxic．（ECHA）
NOAEL Oral：NOAEL $0.4 \mathrm{mg} / \mathrm{kg}$ bw／day Study type migrated information：read－across from supporting substance．Endpoint sub－chronic toxicity：oral．Species rat．Duration 13 weeks．Methods OECD Guideline 408．Reference date 1994 （ECHA）
ADME（Absorption，Distribution，Metabolism，Excretion）：$G$ dointestina Stewart，1974；Bopp et al．，1982；Thomson，1974）．Absorption is highest when the compound is administer in efficient after a single dose than after repetitive daily doses．In studies on rats，mice and dogs，gastrointestinal absorption rates of $87 \%$ or more have been reported for［ 753 se －selenite（selenious acid）（Bopp et al．，1982；U．S．EPA，1989：Furchner et al．，1975）．Absorption is highest following gavage administration，but may be only $50 \%$ when the compound is administered in feed Weissmann et al．，1983）．Selenium is found in all tissues at concentrations that vary with the amount ingested in the diet and the type of tissue．Highest concentrations occur in the kidney，liver， pleen，and pancreas（Schroeder and Mitchener，1971a；Schroeder and Mitchener，1972；Jacobs and Forst，1981a；Julius et al．，1983，Shamberger，1984；Echevarria et al．，1988）．Selenium is so concentrated in erythrocytes relative to the amount in blood plasma nin haitation．Not iritating In the in vitro
Skin Sensitisation：Not sensitising．LLNA in vivo examinations were conducted，using mouse local lymph node assay（LLNA）test，to find evidence for skin sensitisation．The test results showed that the chemical is not sensitising．（ECHA
Carcinogenicity：There is no evidence to support a causal association between any of these selenium compounds and cancer in humans．In fact，some epidemiological and experimental evidence suggests that selenium exposure under certain conditions may contribute to a reduction in cancer risk．The chemopreventive potential of supplemental selenium is currently under research． （ECHA）

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Calcium (Not Reported)
EU INCI: Calcium
CTFA INCI: Calcium
Chinese: 钙.
CAS Number: 7440 70-2
ENECS Numb 740-70-2.
yymbl Number: 231-179-5
Symbol: Ca.
EINECS Weight: 40.08
Synonyms: Aquacal; Atomic calcium; Blood-coagulation factor IV; Calcium atom; Calcium element; Praval; Vivinal MCA 26

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Odour: Characteristic
Oxidising Properties: No oxidising properties
Boiling Point: $1484{ }^{\circ} \mathrm{C}$
Particle Size: Lumps: $10-100 \mathrm{~mm}, 30-200 \mathrm{~mm}$, irregular lumps; Turnings: length $30-80 \mathrm{~mm}$, width $6-8 \mathrm{~mm}$, height $0.7-3.6 \mathrm{~mm}$; Granules/Crumbs: $>(0.2$ )- $0.4-2 \mathrm{~mm}, 2-7 \mathrm{~mm}$; Strips: 2 inches $\times 2$ inches, mixed cut
Colour: Silvery coloured
Density: $1.54 \mathrm{~g} / \mathrm{cm} 3$ at $20^{\circ} \mathrm{C}$
Flammability: Contact with water liberates highly flammable gases
Microbioont: $842^{\circ} \mathrm{C}$
Microbiological stability: Not susceptible to microbiological contamination

REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Listed in CLP Regulation (EC) No 1272/2008: Water-react. 2 H261
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC.
GHS Classification: H261: In contact with water releases flammable gases.
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction : None
TOXICITY REVIEW
General Toxicity Review: There is limited toxicological information according to the toxicological safety of this substance, there is no evidence on eye and skin irritation potential as well as skin sensitisation potential. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is considered to be of toxicological concern when used in consumer products

## TOXICOLOGICAL PROFILE

Eye Irritation: Based on the available toxicological data there is no evidence of eye irritation potential
Genotoxicity: Ubiquitous presence in the environment as various calcium compounds and essentiality for human nutrition, as well as for all living forms, withholds the necessity for further toxicity testing and risk analysis for genotoxicity. (ECHA)
LD50: LD50 (oral, rat) $>2000 \mathrm{mg} / \mathrm{kg}$ bw. Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity. LD50 (dermal, rabbit) $>2000 \mathrm{mg} / \mathrm{kg}$ bw. Acute toxicity studies via dermal route of exposure in semi-occlusive type of coverage showed that the substance has low skin toxicity. (ECHA)
NOAEL Oral: The NOAEL value was not found, however, based on a history of safe use, this chemical material is considered safe for use in cosmetics. The chemical is unlikely to produce systemic toxicity following skin contact
ADME (Absorption, Distribution, Metabolism, Excretion): For metallic calcium dermal absorption and absorption through respiratory system can be considered negligible. More than 99 \% of the calcium stores in the body are located in the bones and teeth. Absorbed calcium is predominantly excreted via urine, but also via faeces and sweat. (ECHA)
Skin Irritation: Based on the available toxicological data there is no evidence of skin irritation potential.
Skin Sensitisation: Based on the available toxicological data there is no evidence of skin allergy potential
Carcinogenicity: Calcium (in its ionic form) is an essential element, which is tightly regulated by the human body within its different compartments. Calcium does not exhibit any properties which would raise a concern for carcinogenic properties. Classification for carcinogenicity is not warranted for Ca (metal form). (ECHA)
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Ethylene oxide（Not Reported）
EU INCI：Ethylene oxide（Prohibited）
CTFA INCI：Ethylene oxide（Prohibited）．
CNDA INCI：Ethylene oxide（Prohibited）．
Chinese：环氧乙烷．
CAS Number：75－21－8
EINECS Number：200－849－9．
IUPAC Name．Oxirane
Synonyms：Oxirane

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Partial Coefficient logPow：-0.3 at $25^{\circ} \mathrm{C}$
Oxidising Properties．No oxidising properties
Boiling Point： $10.7^{\circ} \mathrm{C}$ at 1013 hPa
Colour：Colorless gas of sweetish ethereal odour．
Flammability：Extremely flammable gas
Physical State：Gaseous．
REGULATORY REQUIREMENTS
CLP Regulation（EC）No 1272／2008：Classified as：Flam．Gas 1，H220；Press．Gas，H350；Carc．1B，H340；Muta．1B，H360Fd；Repr．1B，H331；Acute Tox．3，H301；Acute Tox．3，H335；STOT SE 3，H336；STOT SE 3，STOT RE 1，H372（nervous system）；Skin Corr．1，H314；Eye Dam．1，H318
REACH Annex XVII：Listed in Annex XVII．Reason of inclusion：carcinogenic 1B，mutagenic category 1B，reproductive toxicants：category 1B．
REACH SVHC：Not included in SVHC list（Annex XIV）
GHS Classification：H220：Extremely flammable gas．H230：May react explosively even in the absence of air．H280：Contains gas under pressure；may explode if heated．H301：Toxic if swallowed． H314．Causes severe skin burns and eye damage．H318：Causes serious eye damage．H331：Toxic if inhaled．H335．May cause respiratory irritation．H336：May cause drowsiness or dizziness． H340：May cause genetic defects．H350：May cause cancer．H360：May damage fertility or the unborn child．H372：Causes damage to organs through prolonged or repeated exposure（nervous System）．
：Europe Type ：Cosmetic Restriction ：Prohibited
Region ：UK Type ：Cosmetic Restriction ：Prohibited

## TOXICITY REVIEW

General Toxicity Review：Ethylene oxide is a toxic chemical substance officially classified as carcinogenic and mutagenic．The substance causes skin irritation and serious eye irritation．It shows moderate acute toxicity with LD50 above $270 \mathrm{mg} / \mathrm{kg}$ bw and equal $330 \mathrm{mg} / \mathrm{kg}$ bw in oral route of exposure for guinea pigs and rats，respectively．It shows also moderate acute Toxicity with LD 50 equal $1189 \mathrm{mg} / \mathrm{m} 3$ air in inhalation route of exposure for mice．Repeated dose toxicity study was conducted and the NOAEL was determined to be around $30 \mathrm{mg} / \mathrm{kg}$ bw for rats and therefore it is considered as high toxicological concern via oral route of administration．Overall，the ingredient is considered to be of toxicological concern when used in consumer products．

## TOXICOLOGICAL PROFILE

Eye Irritation：Based on the available toxicological data the substance causes serious eye damage．The substance was tested in vivo to examine ocular irritation potential．Endpoint：The substance was not irritating to eyes of rabbits under test conditions．Method： 0.05 ml of diluted ethylene oxide（ $0.1 \%$ ）was installed to rabbit eyes，the reaction was evaluated after 6 h ， 24 h and 48 h ；Species： rabbit；Report date：1977；Source：ECHA．
Genotoxicity：May cause genetic defects．In vitro：positive（S．typhimurium TA 1535，TA 100）；In vivo：ambiguous（Macaca fascicularis monkey）（ECHA）
nhalation：May cause respiratory irritation．May cause drowsiness or dizziness．
D50：LC50（inhalation，mice） $1189 \mathrm{mg} / \mathrm{m} 3$ air．LD50（oral，guinea pigs）$>270 \mathrm{mg} / \mathrm{kg} \mathrm{bw}$ ．LD50（oral，rats） $330 \mathrm{mg} / \mathrm{kg}$ bw．Description：The substance when tested for acute toxicity via inhalation was found to be non toxic．Acute toxicity studies via oral route of administration in guinea pigs and rats demonstrated moderate toxicity．（ECHA）
NOAEL Inhalation：NOAEC＜ 50 ppm（nominal）Study type：repeated dose toxicity．Endpoint：sub－chronic toxicity：inhalation．Route of administration：inhalation．Species：rat and mouse．Method： OECD Guideline 413 （Subchronic Inhalation Toxicity：90－Day Study）Report date：1982．Source：ECHA．MoS was calculated based on this data．
NOAEL Oral：NOAEL $30 \mathrm{mg} / \mathrm{kg}$ bw．Study type：repeated dose toxicity．Endpoint：short－term repeated dose toxicity．Route of administration：oral．Species：rat．Method：OECD Guideline 401 （Acute Oral Toxicity）．Report date：1956．Source：ECHA．MoS was calculated based on this data．
Repeated Dose Toxicity：Causes damage to organs through prolonged or repeated exposure（nervous system）．
Reproductive Toxicology：May damage fertility．NOAEC $0.054 \mathrm{mg} / \mathrm{L}$ air（nominal）．Study type：Toxicity to reproduction．Endpoint：one－generation reproductive toxicity．Route of administration： inhalation．Species：rat．Method：OECD Guideline 415 ［One－Generation Reproduction Toxicity Study（before 9 October 2017）］．Report date：1982．Source：ECHA．
ADME（Absorption，Distribution，Metabolism，Excretion）：Due to high volatility of the substance dermal absorption is suggested to be the least crucial route．Absorption rate in dermal is considered to be 1．3\％．（ECHA）
kin irritation：The substance was tested in vivo to examine skin irritation potential．Endpoint：The substance was found to cause severe skin burns；Method：occlusive application of diluted substance（10－50\％）to shaved skin of rabbits for 1－60 minutes；Species：rabbit；Report date：1956；Source：ECHA
Skin Sensitisation：The substance was tested in vivo to examine skin sensitising potential．Endpoint：The substance was found to be sensitising；Method：according to OECD Guideline 429 ；
Allergens LLNAEC3：In vivo LLNA test was conducted in order to assess skin sensitising potential of the substance．Endpoint：The substance was found to be sensitising．Method：according to OECD 429；Species：mouse；Report date： 2006 and 2011；Source：ECHA．
Carcinogenicity：Carc．Cat 1B

## OTHER

Biodegradability（Environmental）：Ethylene oxide is readily biodegradable according to OECD criteria．
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## DENTIFICATION

Tin (Surfactant)
EU INCI: Tin.
CAS Number: 7440-31-5
EINECS Number: 231-141-8
Symbol: Sn.
Molecular Weight: 118.71
Synonyms: AT-SN; AT-Sn600; C.I. 77860; C.I. Pigment Metal 5; FSn 2; G-Sn; Metallic tin; PO 1; PO 2; SNE 06PB; Silver Matt Powder; Sn-HWQ; Sn-S 200; Sn-S-HM
Flake; Tin Paste 62-1177; Tin Powder; Tin element; W-Sn; Wang
HYSICOCHEMICA
Water Solubility: $0.004 \mathrm{mg} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$
Boiling Point: $2240-2625^{\circ} \mathrm{C}$
Colour: Grey-white
Density: $7.26-7.31 \mathrm{~g} / \mathrm{cm}^{3}$ at 20 deg C
Vapour Pressure: 1 Pa at $1224^{\circ} \mathrm{C}$
Melting Point: $231.9^{\circ} \mathrm{C}$
Physical State: Solid
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Not classified as per CLP, Annex VI
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC.
GHS Classification: Not classified as per GHS
Region : Europe Type : Cosmetic Restriction : None
Region : UK Type : Cosmetic Restriction : None

## TOXICITY REVIEW

General Toxicity Review: Based on the available information the substance is not associated with the skin sensitisation, skin and may cause only slight eye irritation. It shows low acute toxicity with with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is considered to be safe when used as intended.

## OXICOLOGICAL PROFILE

ye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as slightly irritating. (ECHA) Genotoxicity: In vitro: negative (S. typhimurium, other: TA 1535, TA 1537, TA 98, TA 100 and TA 102) (ECHA)
D50: LD50 (oral, rat) > $2000 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method); Description: Acute toxicity studies via oral route of administration in rats ( ats (semiocclusive type of coverage) showed that the substance has low skin toxicity. (ECHA)
NOAEL Oral: NOAEL $>1000 \mathrm{mg} / \mathrm{kg}$ bw/day Study type Type of information:. Endpoint short-term repeated dose toxicity: oral. Species rat. Duration 28 days. Methods OECD Guideline 407. Reference date 2010 (ECHA)
.
( eproductive or developmental toxicity (teratogenicity) as the available data indicates that there is no cause for concern. (ECHA)
Skin Irritation: In the in vivo studies on rabbits with semiocclusive coverage the substance was found to be not irritating and not corrosive. (ECHA)
Skin Sensitisation: Based on the available toxicological data there is no evidence of skin allergy potential.
Carcinogenicity: In accordance with the criteria for classification as defined in Annex I, Regulation (EC) No 1272/2008, the substance does not require classification with respect to carcinogenicity as the available data indicates that there is no reason for concern. (ECHA)

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Copper (Cosmetic Colorant)
EU INCI: CI 77400.
CTFA INCI: Copper powder.
CNDA INCI: Copper.
Chinese: 铜粉.
CAS Number: 7440-50-8
EINECS Number: 231-159-6.
Symbol: Cu.
Weight: 63.546
Synonyms: granulated copper
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Odourless
Water Solubility: Insoluble
Boiling Point: $2595^{\circ} \mathrm{C}$
Particle Size: Particle size distribution (PSD) and D50 of 138 um
Colour: Reddish / Brown
Density: $8.94 \mathrm{~g} / \mathrm{cm} 3$
Vapour Pressure: 0 Pa
LogP Log Kow: -0.57 (calculated)
Physical State: Solid

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Granulated copper with particle length: from $0,9 \mathrm{~mm}$ to $6,0 \mathrm{~mm}$; particle width: from 0,494 to $0,949 \mathrm{~mm}$ is listed in CLP Regulation (EC) $1272 / 2008$ and classified as Aquatic Chronic cat. 2 H 411
REACH Annex XVII: Not listed in the Annex XVII.
REACH SVHC: Not included in SVHC list (Annex XIV).
GHS Classification: Not classified as per GHS
Region : Europe Type : Cosmetic Restriction : None. Listed in the Annex IV to (EC) No 1223/2009
Region : UK Type : Cosmetic Restriction : None
TOXICITY REVIEW
General Toxicity Review: The substance was tested in vivo and it was concluded that it is not irritating to eyes and skin. May cause mechanical irritation. Acute oral toxicity study indicated that copper shows medium toxicity potential with medial lethal dose at $300-500 \mathrm{mg} / \mathrm{kg}$ bw. NOAEL was determined at 1000 ppm and showed high toxicity potential via oral route of administration. The ingredient characteristic suggests that interactions of the material with other substances would not lead to any synergistic or unpredictable adverse effects. Overall, the ingredient is not considered to be of toxicological concern when used in consumer products

## TOXICOLOGICAL PROFILE

AcuteToxicology: LC50 (inhalation, rat) $>5.11 \mathrm{mg} / \mathrm{L}$ air (inhalation, rat, $4 \mathrm{~h}, 2011$, OECD Guideline 436); Description: The substance when tested for acute toxicity via inhalation for 4 hours was found to be slightly toxic. LD50 (dermal, rat) $>2000 \mathrm{mg} / \mathrm{kg}$ bw (dermal, rat, 2001, OECD Guideline 402) 'Description: Acute toxicity studies via dermal route of exposure in rats (semiocclusive type of coverage) showed that the substance has low skin toxicity. (ECHA)
( eport date: 2001 , Sour
Genotoxicity: Negative in vitro gene mutation study in bacteria. Negative in vivo mammalian somatic cell study: cytogenicity / erythrocyte micronucleus (ECHA)
LD50: LD50 $300-500 \mathrm{mg} / \mathrm{kg}$ bw; Route of administration:oral, Species: rat, Report date:2001, Method: according to OECD Guideline 423; Description: Acute toxicity studies via oral route of administration in rats demonstrated moderate toxicity of the substance. source: ECHA.
Mutagenicity: No evidence of muitagenicity
NOAEL Inhalation: NOAEL $2 \mathrm{mg} / \mathrm{m} 3(0.002 \mathrm{mg} / \mathrm{L})$. Study type Repeated dose toxicity. Endpoint short-term repeated dose toxicity. Method OECD Guideline 412 (Subacute Inhalation Toxicity: 28Day Study). Study date 2010 (ECHA)
NOAEL Oral: NOAEL 1000 ppm ( $0.1 \mathrm{mg} / \mathrm{kg}$ bw). Study type Repeated dose toxicity. Endpoint sub-chronic toxicity. Methods EU Method B. 26 (Sub-Chronic Oral Toxicity Test: Repeated Dose $90-$ Day Oral Toxicity Study in Rodents). Report date 1993 (ECHA)

Skin Irritation: The substance was tested in vivo to examine skin irritation potential. Endpoint: not irritating; Method: according to OECD Guideline 404 and EU Method B.4; Species: rabbit; Report
Skin Sensitisation: The substance was tested in vivo to examine skin sensitising potential. Endpoint: not sensitising; Method: according to OECD Guideline 406 and EU Method B.6; Species: guinea pig; Report date: 2001; Source: ECHA

## OTHER

Hazard Class and Category Code(s): (H411) Aquatic Chronic 2
LC50 (Environmental): LC50 $193 \mu \mathrm{~g} / \mathrm{L}$; Species: fish, Exposure duration: 96h, Report date:1987, measurements were conducted by standard EPA methods; Source: ECHA
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Lead and its compounds（Not Reported）
EU INCI：Lead and its compounds（Prohibited）
CTFA INCI：Lead and its compounds（Prohibited）．
Chinese：铅及其化合物．
CAS Number：7439－92－1．
EINECS Number：231－100－4

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour：Characteristic
Oxidising Properties：Non oxidising
Water Solubility： $185 \mathrm{mg} / \mathrm{L}$
Particle Size：Particle diameter＜ 1 mm ：D50 $=12.7 \mu \mathrm{~m}$ ．Mass median aerodynamic diameter of airborne fraction $33.7 \mu \mathrm{~m}$ ．
Colour：Grey－blue
Melting Point： $326^{\circ} \mathrm{C}$ at 101325 Pa
Physical State：Powder．

## REGULATORY REQUIREMENTS

Specific Conc．Limits，M－factors and ATEs：Repr．1A；H360D：C $\geq 0,03 \%$ ；$M=1(H 400) ; M=10(H 410)$ ．
CLP Regulation（EC）No 1272／2008：Classified as：Repr．1A，H360FD；Lact．H362；Acute Tox． 4 ＊，H332；Acute Tox． 4 ＊，H302；STOT RE 2 ＊，H373＊＊；Aquatic Acute 1，H400；Aquatic Chronic 1 ， H410
REACH Annex XVII：Listed．Toxic to reproduction category 1A
REACH SVHC：Included in SVHC．Reason of inclusion：Toxicity to reproduction（Article 57c）．
Regulatory Controls：An impurity．Prohibited as an ingredient．
exposure：Caution：H360FD．May damage fertility．May damage the unborn child．H362：May cause harm to breast－fed children．H372：Causes damage to organs through prolonged or repeated
Region ：Europes damage to central nervous system，blood and kidneys through prolonged or repeated exposure by inhalation or ingestion．
Region：UK Typ Type．Cosmetic Restriction ：Prohibited

## TOXICITY REVIEW

General Toxicity Review：Lead is considered as unsafe and is prohibited in cosmetic products．The substance：may damage fertility or the unborn child and may cause harm to breast－fed children． Lead causes damage to organs through prolonged or repeated exposure：central nervous system，blood and kidneys through prolonged or repeated exposure by inhalation or ingestion．Overall， the ingredient is considered to be of toxicological concern when used in consumer products．Only unavoidable trace levels are acceptable．

## TOXICOLOGICAL PROFILE

## ECHA．

LD50：LD50＞ $2000 \mathrm{mg} / \mathrm{kg}$ bw；Route of exposure：oral，Species：rat，Report date：2003，Method：according to OECD Guideline 423．Description：Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the substance．LD50＞ $2000 \mathrm{mg} / \mathrm{kg}$ bw Route of exposure：dermal，Species：rat，Report date： 2003 ，Method：according to OECD Guideline 402. Description：Acute toxicity studies via dermal route of exposure in rabbits（occlusive type of coverage）showed that the substance has low skin toxicity．Source ECHA
NOAEL Oral：NOEL $0.002 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：repeated dose，chronic toxicity；Route of exposure：oral；Species：rat，Report date：1979；Method：Followed guidelines of an EPA chronic feeding study．；Source：ECHA
eproductive Toxicology：Toxic to fertility oral and inhalation route
Safety evaluation：Consequently，the environmental classification of lead should be reviewed by RAC，in accordance with recital 5 of the draft Commission Regulation updating the entry of lead listed in Annex VI of Regulation（EC）No 1272／2008．（5）With regard to the substance lead（CAS number 7439－92－1 and index numbers 082－013－00－1（lead powder；［particle diameter＜ 1 mm ］； and 082－014－00－7（lead massive；［particle diameter $\geq 1 \mathrm{~mm}$ ］；），RAC proposed in its opinion of 30 November 2018 to apply the same environmental classification to the massive and the powder form．However，in view of the lower dissolution rate of the massive form，the malleable structure of lead，the specific intentional production of the powder and the different environmental classification between massive and powder forms for existing entries in Annex VI for other metals，further assessment needs to be done by RAC on whether to apply the same environmental classification to the massive as to the powder form of lead．In addition，new scientific data has been made available suggesting that the environmental classification for the massive form as recommended in the RAC opinion might not be appropriate Therefore，the environmental classification for the massive form will not be included in Annex VI to Regulation（EC）No $1272 / 2008$ until RAC has had the opportunity to delive a revised opinion．European Chemicals Agency（ECHA）requested a review concerning environmental classification of lead from the Committee for Risk Assessment（RAC）．
ADME（Absorption，Distribution，Metabolism，Excretion）：In vitro／ex vivo studies showed that through unabraded human skin absorption is considered to be minimal（＜0 ．1\％）．（ECHA）
Skin Irritation：The substance was tested in vivo to examine skin irritation potential．Endpoint：Not irritating；Method：according to OECD Guideline 404；Species：rabbit；Report date：2003；Source： CHA
Skin Sensitisation：The substance was tested in vivo to examine skin sensitising potential．Endpoint：Not associated with skin sensitisation；Method：according to OECD Guideline 406；Species： uinea pig；Report date：2003；Source：ECHA
Carcinogenicity：NOAEL $7.8 \mathrm{mg} / \mathrm{kg}$ bw／day（chronic toxicity，rat）（ECHA）

## OTHER

Ecological toxicity：Very toxic to aquatic life with long lasting effects
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## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Benzene (Not Reported)
EU INCI: Benzene (Prohibited)
CTFA INCI: Benzene (Prohibited).
CAS Number: 71-43-2.
EINECS Number: 200-753-7.
Symbol: C6H6.
Molecular Weight: 78.11.

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Odour: Characteristic, aromatic, petroleum-like
Viscosity: 0.604 mPa s at $25^{\circ} \mathrm{C}$
Nater Solubility: $1.88 \mathrm{~g} / \mathrm{L}$ at $23.5^{\circ} \mathrm{C}$
Parial Coefficient logPow: 2.13 at $20^{\circ} \mathrm{C}$
Boiling Point: 80.09
Density: $0.8765 \mathrm{~g} / \mathrm{cm}^{3}$ at $20^{\circ} \mathrm{C}$
Flammability: Highly flammable liquid and vapour
Fash Point: $-11^{\circ} \mathrm{C}$ at 101325 Pa
Melting Point: $5.49^{\circ} \mathrm{C}$ at 101325 Pa
Physical State: Liquid.
REGULATORY REQUIREMENTS
IFRA Standard: Benzene should not be used as a fragrance ingredient.The level of Benzene has to be kept as low as practicable and should never exceed 1 ppm in the fragrance compound/mixture or fragrance oil.
CLP Regulation (EC) No 1272/2008: Classified as: Flam. Liq. 2 H225; Carc. 1A H350; Muta. 1B H340; STOT RE 1 H372 **; Asp. Tox. 1 H304; Eye Irrit. 2 H319; Skin Irrit. 2 H315
REACH Annex XVII: Listed in Annex XVII. Reason of inclusion: Carcinogenic 1A, Mutagenic 1B. Maximum concentration limits by weight inhomogeneous materials: 5 mg/kg. 1. Shall not be used in toys or parts of toys where the concentration of benzene in the free state is greater than $5 \mathrm{mg} / \mathrm{kg}(0,0005 \%)$ of the weight of the toy orpart of toy. 2 . Toys and parts of toys not complying with paragraph 1 shall not be placed on the market. 3 . Shall not be placed on the market, or used, as a substance, as a constituent of other substances, or in mixtures, in concentrations equal to, or
 benzene remains below $0,1 \%$ volume/volume.
REACH SVHC: Not included in SVHC.
Regulatory Controls: Prohibited as a constituent of other substances, or in mixtures, in concentrations equal to, or greater than $0.1 \%$ by weight
GHS Classification: H225: Highly Flammable liquid and vapour. H350: May cause cancer. H340: May cause genetic defects. H372: Causes damage to organs through prolonged or repeated exposure. H304: May be fatal if swallowed and enters airways. H319: Causes serious eye irritation. H315: Causes skin irritation. H412: Harmful to aquatic life with long lasting effects.
Region : Europe Type : Cosmetic Restriction : Prohibited
Region: UK Type : Cosmetic Restriction: Prohibited
TOXICITY REVIEW
General Toxicity Review: Benzene is prohibited in cosmetic products. The substance causes skin irritation and serious eye irritation. The substance may cause damage damage to organs and cancer. Therefore, the substance is a concern for safe use in cosmetics. Only trace levels are allowed

TOXICOLOGICAL PROFILE
Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as mildly irritating. (ECHA) According to the CLP Eassification the substance causes serious eye irritation.
( lab type of coverage) showed that the substance has low skin toxicity. (ECHA)
Mutagenicity: Mutagenic 1B
NOAEL Inhalation: NOAEC $32 \mathrm{mg} / \mathrm{m}^{3}$ air Study type: chronic toxicity: inhalation (vapour, whole body, mouse, 1985, Am. J. Ind. Med. 7, 447-456) (ref.echa)
NOAEL Oral: NOAEL $100 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: repeated dose toxicity; Endpoint:sub-chronic toxicity: oral; Species:rat; Guideline:OECD Guideline 408 (Repeated Dose 90 -Day Oral Toxicity Study in Rodents); Report date:1986; Source: ECHA, MoS was calculated based on this data
Repeated Dose Toxicity: Causes damage to organs through prolonged or repeated exposure is of the opinion that consumer exposure to benzene present in natural gas at a concentration greater than $0.1 \%(\mathrm{w} / \mathrm{w})$ but below $0.1 \%(\mathrm{v} / \mathrm{v})$ during regular use of natural gas as fuel for cooking and heating does not represent a risk for consumers that is not adequately controlled However this opinion does not cover the consumer exposure and risk arising from exposure scenarios other than those described in the RIVM report. RAC therefore cannot confirm that for any conditions or equipment other than those described in the RIVM report the risks for consumers are adequately controlled.
Skin Irritation: In the in vivo studies on rabbits the substance was found to be irritating. (ECHA)
Skin Sensitisation: Non-LLNA in vivo examinations were conducted, using GPMT and mouse ear swelling test (MEST), to find evidence for skin sensitisation. The test results showed that the chemical is non-sensitising. (ECHA
Carcinogenicity: Carcinogenic 1A

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Antimony and its compounds（Not Reported）
EU INCI：Antimony and its compounds（Prohibited）
CTFA INCI：Antimony and its compounds（Prohibited）．
Chinese：锑及其化合物．
CAS Number：7440－36－0．
EINECS Number：231－146－5．
Symbol：Sb．
Molecular Weight：13968－50－8．

## PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY

Water Solubility： $18.2 \mathrm{mg} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$（antimony）
Boiling Point：$>600^{\circ} \mathrm{C}$（antimony）
Colour：Grey（antimony）
Density： $7.05 \mathrm{~g} / \mathrm{cm} 3$ at 20 C （antimony）
Melting Point：＞600C（antimony）
Physical State：Powder．

## REGULATORY REQUIREMENTS

CLP Regulation（EC）No 1272／2008：Antimony trichloride and antimony pentachloride are classified as：Skin Corr．1B，H314；Aquatic Chronic 2，H411．Antimony trifluoride is classified as：Acute Tox． $3^{\star}, \mathrm{H} 331$ ；Acute Tox． $3^{\star}, \mathrm{H} 311$ ；Acute Tox． $3^{*}, \mathrm{H} 301$ ；Aquatic Chronic 2，H411．Antimony trioxide is classified as：Carc．2，H351．Antimony compounds，with the exception of the tetroxide （Sb2O4），pentoxide（Sb2O5），trisulphide（Sb2S3），pentasulphide（Sb2S5）are classified as：Acute Tox． $4^{*}$ ，H332；Acute Tox． $4^{*}$ ，H302；Aquatic Chronic 2，H411 REACH Annex XVII：Not listed in Annex XVII
REACH SVHC：Not included in SVHC
GHS Classification：H360：May damage fertility or the unborn child．H362：May cause harm to breast－fed children．H412：Harmful to aquatic life with long lasting effects．．
Region ：Europe Type：Cosmetic Restriction ：Prohibited
Region：UK Type ：Cosmetic Restriction：Prohibited
TOXICITY REVIEW
General Toxicity Review：Antimony and its salts are considered as damaging fertility or the unborn child and that may cause harm to breast－fed children．In vivo studies resulted in scoring the chemical as damaging eyes and causing severe skin burns．Skin sensitisation study indicated that it is non－sensitising．It shows veyr low acute toxicity potential with median lethal dose at above 8 $300 \mathrm{mg} / \mathrm{kg}$ bw via dermal route．Repeated dose toxicity study indicated NOAEL at $1686 \mathrm{mg} / \mathrm{kg}$ bw／day via oral route．

## TOXICOLOGICAL PROFILE

Eye Irritation：Causes eye damage（antimony trichloride and antimony pentachloride）．The substance（antimony）was tested in vivo（rabbits）to examine ocular irritation after application．The studies resulted in scoring the chemical as not irritating．（ECHA）
Genotoxicity：In vitro：negative（S．typhimurium TA 1535，TA 1537，TA 98，TA 100 and TA 102）；In vivo：negative（rat）（ECHA
Inhalation：Harmful if inhaled
LD50：LD50（dermal，rabbit）$>8300 \mathrm{mg} / \mathrm{kg}$ bw；route of exposure：dermal，Species：rabbit，Reprt date：1955；Description：Acute toxicity studies via oral route of administration in rats demonstrated practically non－toxicity of the substance．Source：ECHA．
NOAEL Oral：NOAEL $1686 \mathrm{mg} / \mathrm{kg}$ bw／day；Route of exposure：oral；Species：rat，Report date：1999，Method：according to OECD guideline 408，Source：ECHA
ADME（Absorption，Distribution，Metabolism，Excretion）：Absorption rate－dermal（\％）： 0.1 （ECHA）
Skin Irritation：Causes severe skin burns（antimony trichloride and antimony pentachloride）．In the in vivo studies on rabbits with occlusive coverage the substance（antimony）was found to be not irritating and not corrosive．（ECHA）
Skin Sensitisation：Not sensitising（antimony）Non－LLNA in vivo examinations were conducted，using guinea pig maximisation test，to find evidence for skin sensitisation．The test results showed
Carcinogenicity：＂The combined animal and human exposure data support a Carcinogenicity category 2 via inhalation classification for Sb trioxide．Based on physical form／particle size，water solubility，and Sb speciation／valency，the same classification can be applied to Sb metal and Sb trisulfide．Sb trichloride and Sb tris（ethylene glycolate）do not satisfy the criteria to be grouped with Sb metal，Sb trioxude and Sb trisulfide for purpose of lung carcinogenicity classification，and are not classified for carcinogenicity．＂（Source：ECHA 2020 https：／／echa．europa．eu／pl／registration－ dossier／－／registered－dossier／16124／7／8）
eurofins

Product Name

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Nickel (Not Reported)
EU INCI: Nickel (Prohibited)
CTFA INCI: Nickel (Prohibited)
Chinese: 镍.
CAS Number: 7440-02-0
EINECS Number: 231-111-4

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Water Solubility: Insoluble
Particle Size: < 100 um, $97.1 \%<10$ um, $0.61 \%<5.5$ um, $0.31 \%$
Colour: Lustrous white to grey
Density: $8.9 \mathrm{~g} / \mathrm{cm} 3$ at 2
Melting Point: $1455^{\circ} \mathrm{C}$
REGULATORY REQUIREMENTS
CLP Regulation (EC) No 1272/2008: Classified as: Carc. 2 H351; STOT RE 1 H372**; Skin Sens. 1 H317; Additionally nickel powder [particle diameter <1mm] : Aquatic Chronic 3 H412 REACH Annex XVII: Listed in Annex XVII. Reason of inclusion Carcinogenic 2B. substance with the specific concentration limit: 0,0005 \%
REACH SVHC. Not included in SVHC
GHS Classification: H351: Suspected of causing cancer (inhalation); H372: Causes damage to organs through prolonged or repeated exposure (inhalation); H317: May cause an allergic skin reaction. H412: Harmful to aquatic life with long lasting effects
Region: Europe Type : Cosmetic Restriction : Prohibited
Region : UK Type : Cosmetic Restriction : Prohibited

## TOXICITY REVIEW

General Toxicity Review: Nickel is considered as unsafe and is prohibited in cosmetic products. The substance may cause an allergic skin reaction and is suspected of causing cancer (inhalation). Nickel causes damage to organs through prolonged or repeated exposure by inhalation. Overall, the ingredient is considered to be of toxicological concern when used in consumer products. Only unavoidable trace levels are acceptable.

## TOXICOLOGICAL PROFILE

Eye Irritation: The substance was tested in vivo (rabbits) to examine ocular irritation after application. The studies resulted in scoring the chemical as not irritating. (ECHA)
LD50: LD50 (oral, rat) $>9000 \mathrm{mg} / \mathrm{kg}$ bw; OECD Guideline 401 (Acute Oral Toxicity); Description: Acute toxicity studies via oral route of administration in rats demonstrated low toxicity of the
NOAEL Inhalation: LOAEC $0.1 \mathrm{mg} / \mathrm{m}^{3}$ air Study type: Repeated dose toxicity; Endpoint:repeated dose toxicity: inhalation(aerosol, whole body); Species:rat; Guideline: OECD Guideline 451 (Carcinogenicity Studies); Source: ECHA
NOAEL Oral: NOAEL $2.2 \mathrm{mg} \mathrm{Ni} / \mathrm{kg}$ bw/day Study type: repeated dose toxicity: oral; Species:rat; Guideline:OECD Guideline 451 (Carcinogenicity Studies); Source: ECHA, MoS was calculated based on this data
Reproductive Toxicology: NOAEL $10 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: Toxicity to reproduction; Endpoint:two-generation reproductive toxicity; Species:rat; Guideline:OECD Guideline 416 (TwoGeneration Reproduction Toxicity Study); Source; ECHA
Skin Irritation: In the in vivo studies on rabbits with semiocclusive coverage the substance was found to be not irritating and not corrosive. (ECHA)
lly classified as Skin Sens 1 by the CLP regulation
Carcinogenicity: It is classified as Category 2; H351 carcinogen under the EU CLP; and Group 2B carcinogen (possible human carcinogen) by IARC (1990)
eurofins

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Cadmium (Not Reported)
EU INCI: Cadmium (Prohibited).
CTFA INCl: Cadmium (Prohibited).
Chinese: 镉.
CAS Number: 7440-43-9.
EINECS Number: 231-152-8.
Symbol: Cd.
Synonyms: Cadmium (non-pyrophoric)
PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Odour: Odourless
Water Solubility: $2.3 \mathrm{mg} / \mathrm{L}$ at $20^{\circ} \mathrm{C}$
Particle Size: D50 of the cadmium powder is $16.27 \mu \mathrm{~m}$, the D80 is $<20 \mu \mathrm{~m}$
Colour: Brownish
Density: $8.64 \mathrm{~g} / \mathrm{cm} 3$
Melting Point: $321^{\circ} \mathrm{C}$
Physical State: Powder.

## REGULATORY REQUIREMENTS

CLP Regulation (EC) No 1272/2008: Classified as: Carc. 1B, H350; Muta. 2, H341; Repr. 2, H361fd; Acute Tox. 2 *, H330; STOT RE 1, H372 **; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 REACH Annex XVII: Listed in Annex XVII. Reason of inclusion: Carcinogenic category 1B
REACH SVHC: Included in SVHC. Reason of inclusion: Carcinogenic (Article 57 a ), Specific target organ toxicity after repeated exposure (Article $57(\mathrm{f})$ - human health)
GHS Classification: H350: May cause cancer. H341: Suspected of causing genetic defects. H361 fd: Suspected of damaging fertility. H330: Fatal if inhaled. H372: Causes damage to organs through prolonged or repeated exposure. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects..
Region : Europe Type : Cosmetic Restriction : Prohibited
Region: UK Type : Cosmetic Restriction: Prohibited

## TOXICITY REVIEW

General Toxicity Review: Cadmium is considered as unsafe and is prohibited in cosmetic products. It is known to be carcinogenic, mutagenic and reprotoxic. There is no evidence of potential irritating properties for skin and eyes. The substance is not expected to cause skin sensitisation. It is moderately toxic with LD50 $63 \mathrm{mg} / \mathrm{kg}$ bw for oral exposure. The substance causes organs damage after prolonged and repeated use. Overall, the ingredient is considered to be concern of safe use.

TOXICOLOGICAL PROFILE
Eye Irritation: Based on the available toxicological data there is no evidence of eye irritation potential. observed in rats: lower body weight, dyspnea and hypoactivity. (ref.ECHA)
Genotoxicity: In vitro: negative (S. typhimurium TA 1535, TA 1537, TA 98 and TA 100); In vivo: negative (mouse) (ECHA)
LD50: LD50 (oral, mouse) $63 \mathrm{mg} / \mathrm{kg}$ bw (2007). Description: Acute toxicity studies via oral route of administration in mouse demonstrated moderate toxicity of the substance. LC50 (inhalation, mouse) $>9.02 \mathrm{mg} / \mathrm{m}^{3}$ air. (ref. ECHA)
NOAEL Inhalation: LOAEL 25 other: $\mu \mathrm{g} / \mathrm{m} 3$ Study type: sub-chronic toxicity: inhalation (aerosol, rat, 1978) (ECHA)
NOAEL Oral: NOAEL $3 \mathrm{mg} / \mathrm{kg}$ bw/day (nominal). Endpoints; sub-chronic toxicity: oral. Methods; no guideline followed. Species; rat. Route of administration; oral: feed. Report date; 1997. Source; ECHA. (Toxicology 7: 215-224) MoS was calculated based on this data.
Reprody (inhalation: aerosol, whole body, rat, 1995, OECD TG 413 and EC TM B26 Dir. 87/302/EEC 30/05/88). During the study reduced number of spermatids per testis and an increase in the length of the estrous cycle were observed. (ref.ECHA)
ADME (Absorption, Distribution, Metabolism, Excretion): In vitro human skin models suggest that, although cadmium may penetrate through skin, absorption of soluble and less soluble compounds Skin Irritation: In the in vitro / ex vivo studies on the human skin model the substance waster et al., 1992; ECB, 2008). (ECHA)
kin Sensitisation: Based on the available toxicological data there is no evidence of skin found to be not irritating and not corrosive. (ECHA)
Carcinogenicity: Carcinogenic category 1B. LOAEL $3.5 \mathrm{mg} / \mathrm{kg}$ bw/day Study type: Carcinogenicity: via oral route (target organ): urogenital: prostate. LOAEC $0.03 \mathrm{mg} / \mathrm{m}^{3}$ Study type: Carcinogenicity: via inhalation route (target organ): respiratory: lung According to animal testing cadmium is carcinogen. (ECHA)

Product Name
Cocoa Hand \＆Body Butter 2000mg（2022－753－5050）（variant）CPSR EU／UK passed under condition

## TOXICOLOGICAL PROFILE OF THE SUBSTANCES

## IDENTIFICATION

Mercury and its compounds（Not Reported）
EU INCl：Mercury and its compounds（Prohibited）
CTFA INCI：Mercury and its compounds（Prohibited）
Chinese：永及其化合物．
CAS Number：7439－97－6．
EINECS Number：231－106－7

PHYSICOCHEMICAL PROPERTIES and MICROBIOLOGICAL STABILITY
Oxidising Properties：Non oxidising
Viscosity： $1.55 \mathrm{mPa} \cdot \mathrm{s}$（dynamic）at $20^{\circ} \mathrm{C}$
Boiling Point： $356.66^{\circ} \mathrm{C}$ at 101325 Pa
Colour：Silver
Density： 13.54 at 20 C
Flammability：Non flammable
Vapour Pressure： 0.002 hPa at $20^{\circ} \mathrm{C}$
Melting Point：$-38.67^{\circ} \mathrm{C}$ at 101325 Pa
Microbiological stability：Not susceptible to microbiological contamination
Physical State：Liquid．
REGULATORY REQUIREMENTS
CLP Regulation（EC）No 1272／2008：Classified as：Repr．1B，H360D＊＊＊；Acute Tox． 2 ＊，H330；STOT RE 1，H372＊＊；Aquatic Acute 1，H400；Aquatic Chronic 1，H410
REACH Annex XVII：Listed．Reason of inclusion：Toxic to reproduction：category 1B
GHS Classification：H330：Fatal if inhaled．H360：May damage fertility or the unborn child．H372：Causes damage to organs．H410：Very toxic to aquatic life with long lasting effects．．
Region ：Europe Type ：Cosmetic Restriction ：Prohibited in all product
Region ：UK Type ：Cosmetic Restriction ：Prohibited in all products

## TOXICITY REVIEW

General Toxicity Review：Mercury is considered as unsafe and is prohibited in cosmetic products．The substance may cause damage to organs and fertility or the unborn child．The substance is highly toxic with LD50 $>9.2 \mathrm{mg} / \mathrm{kg}$ bw for oral exposure and very toxic with LC50 $>26.6 \mathrm{mg} / \mathrm{m}^{3}$ air（analytical）for inhalation exposure．Overall，the ingredient is considered to be of toxicological concern when used in costumer products．Only unavoidable trace levels are acceptable．

## TOXICOLOGICAL PROFILE

Eye irritation．Based on the available toxicological data there is no evidence of eye irritation potential．
Genotoxicity：In vitro：positive（mouse lymphoma L5178Y cells）；In vivo：positive（mouse）（ECHA）
LD50：LD50（oral，rat）$>9.2 \mathrm{mg} / \mathrm{kg}$ bw；Description：Acute toxicity studies via oral route of administration in rats demonstrated high toxicity of the substance．（ECHA）LC50（inhalation，rat）＞ 26.6 $\mathrm{mg} / \mathrm{m}^{3}$ air（analytical）．Description：The substance when tested for acute toxicity via inhalation and was found to be very toxic．（ECHA）
NOAEL Oral：LOAEL $0.312 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：sub－chronic toxicity：oral（rat，1993）（ref．echa）；NOAEL 0．23 mg／kg body weight Study type：repeated dose toxicity（ $26-$ week，oral，mercuric chloride）（ref．WHO）NOAEL $0.005 \mathrm{mg} \mathrm{Hg} / \mathrm{kg} /$ day Study type：repeated dose toxicity（2－years，oral，rat）（Fitzhugh et al．1950）
Reproductive Toxicology：LOEL $7.5 \mathrm{mg} / \mathrm{kg}$ bw／day Study type：toxicity to reproduction（oral，rat，1996）（ref．echa）
Skin Sensitisation：Non－LLNA in vivo examinations were conducted，using guinea pig Buehler test，to find evidence for skin sensitisation．The test results showed that the chemical is non－ sensitising．（ECHA）

Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## UNDESIRABLE EFFECTS AND SERIOUS UNDESIRABLE EFFECTS MONITORING POST MARKETING SURVEILLANCE

HOW LONG ON THE MARKET:
New product - no data.
AMOUNT OF UNITS SOLD: New product - no data.
REMARKS:
New product - no data.

## INFORMATION ON THE COSMETIC PRODUCT DERMATOLOGICAL TESTS

Based on the information received for the assessment, the product has not undergone additional testing due to the absence of other declared functions, except for those that clearly result from the definition of the cosmetic product.

## LABELLED WARNINGS

Manufacturer`s warnings:
Rinse immediately with clean, warm water if any contact is made with the eyes. This product is not intended to diagnose, treat, cure, or prevent any diseases. If pregnant or breastfeeding, consult your doctor before use. Keep out of reach of children. We recommend that you store our products in a cool, dark place.
eurofins
Consumer Product Testing

Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer

Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## INSTRUCTION OF USE

Body - Apply a generous amount to hands to cover the entire body, using circular sweeping movements rub into the body and let our natural blend detoxify you. Hands - Apply a small amount to your hand and let it gently absorb nourishing and replenishing the skin with a combination of the finest oils.

## REASONING

## TOXICOLOGICAL ASSESSMENT

## OVERALL TOXICOLOGICAL REVIEW

The NOAELs were not available for all ingredients. For the substances where NOAELs (usually derived based on repeated dose toxicity (chronic toxicity), are not available, the safety of these substances is justified based on other available toxicological endpoints such as local toxicity (allergenicity, irritation, corrosivity), percutaneous absorption, acute toxicity (oral and dermal), toxicokinetics, carcinogenicity and genotoxicity.

It is noted that the NOAELs were not available for review for all of the ingredients, however, for the substances, where values were available, the margin of safety (MoS) is usually above the typical 100-fold recommendation as per reference to the SCCS Notes of Guidance for the Testing of Cosmetic Ingredients and their Safety Evaluation. A number of other materials have recommended safe levels (as established by bodies such as the Cosmetics Ingredient Review (CIR) Expert Panel) or legal limits that are described in percentage terms. All such materials are present at/or below the recommended safe levels or legal maximums as per the regulatory requirements.

This assessment is based on the maximum percentages of each ingredient and as such does not equal $100 \%$.
It is noted that for some chemical materials the MoS for oral exposure was calculated below 100. Bearing in mind that the product is intended for adults the risk of accidental ingestion is unlikely.

A complete set of technical specifications of the product, raw materials and the packaging were not provided at the time of the assessment. It is the responsibility of the RP to ensure that the product does not contain ingredients that are restricted or prohibited prior to marketing.

This product is considered safe and in compliance with the Cosmetic Regulation (EC) No 1223/2009 requirements and with Schedule 34 of the Product Safety \& Metrology etc (Amendment etc) (EU Exit) Regulations 2019 UK Cosmetics Regulation and subsequent amendments under the conditions that the efficacy of the preservative system and microbiological stability (TVC, mould, fungi, absence of pathogens) meet the acceptance criteria based on the positive evaluation prior to marketing. The product must be manufactured according to Good Manufacturing Practice.

# Job No NCH1140 <br> Report No 008233 <br> Issue Date 23/01/2023 <br> Version No 1 

Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## Manufacturer

Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## REASONING

TOXICOLOGICAL ASSESSMENT

## EFFECT ON SKIN

May cause slight temporary skin irritation.

The product does not contain perfume materials or other chemicals that are known to cause allergic reactions, the risk of inducing allergy is reduced.

## EFFECT ON EYES

May irritate the eye.

## EFFECT ON INGESTION

This product is intended for external use only and should not be ingested.
The product is expected to cause some adverse health effect when it accidentally enters the Gl tract in a large amount. If swallowed in a small amount, may cause some irritation to the mouth and upper GI tract.

## EFFECT ON INHALATION

It is unlikely that inhalation will be a route of exposure.
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| Job No | NCH1140 |
| :--- | :--- |
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| Version No | $\mathbf{1}$ |

## Product Name

Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer

## Eresos Health + Wellbeing LTD 14 A Commercial Road London <br> N18 1TP

## ASSESSMENT CONCLUSION

This safety assessment has been prepared in accordance with the Cosmetic Regulation (EC) No 1223/2009. This is the safety assessment of regulated products and their toxicology of which are assessed as follows:

Quantitative and qualitative composition of the cosmetic product
Physical/chemical characteristics and stability of the cosmetic product
Microbiological quality
Impurities, traces, information about the packaging material
Normal and reasonably foreseeable use
Exposure to the cosmetic product / Exposure to the substances
Toxicological profile of the substances
Information on the cosmetic product
The regulatory status of the ingredients for use in the cosmetic products
The safety data identified for each ingredient obtained during literature searches in medical and toxicology databases.
Taking into account the information and the present state of knowledge, this product complies with the annexes to the Cosmetic Regulation (EC) No 1223/2009 requirements.
Under normal and reasonably foreseeable conditions of use the product should not cause damage to human health when placed in the market.

The individual ingredients characteristic suggest that interaction of the materials would not lead to any synergistic or unpredictable adverse effects.

This safety assessment is relevant solely to the information and conditions described in this document. Any changes to ingredients and their concentrations of use, or change application use shall be subjected to a new assessment.

This product is considered safe and in compliance with the Cosmetic Regulation (EC) No 1223/2009 requirements and with Schedule 34 of the Product Safety \& Metrology etc (Amendment etc) (EU Exit) Regulations 2019 UK Cosmetics Regulation and subsequent amendments under the conditions that the efficacy of the preservative system and microbiological stability (TVC, mould, fungi, absence of pathogens) meet the acceptance criteria based on the positive evaluation prior to marketing.

The product must be manufactured according to Good Manufacturing Practice.

## TOXICOLOGICAL AND REGULATORY ASSESSOR



A T Nnolim, MScTox, MScEng, CChem,CSci, EurChem, PostDipMicro, EUROTOX Registered Toxicologist NOLICHEM Consultancy, 4 Lime Crescent, Willand, Cullompton, EX15 2SL, UK

## SAFETY ASSESSOR


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Product Name
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Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

IMPURITIES

| CAS No | IMPURITY | SOURCE CHEMICAL | Concentration in finished product[C \%] |
| :---: | :---: | :---: | :---: |
| 1350472-07-9 | Iso-squalane | Squalane | 0.0163453500 |
| - | C30 Hydrocarbons | Squalane | 0.0076278300 |
| 79-10-7 | Acrylic acid | Carbomer | 0.0044503000 |
| 110-82-7 | Cyclohexane | Carbomer | 0.0044503000 |
| 111-46-6 | Diethylene glycol | Glycerin | 0.0029090100 |
| 107-21-1 | Glycol (Ethylene glycol) | Glycerin | 0.0029090100 |
| 141-78-6 | Ethyl Acetate | Carbomer | 0.0022251500 |
| 497-19-8 | Sodium Carbonate | Sodium Hydroxide | 0.0015227100 |
| 16887-00-6 | Chloride | Glycerin | 0.0010181535 |
| 110-54-3 | Hexane | Carbomer | 0.0008900600 |
| $\begin{aligned} & 59-02-9(10191-41-0) \\ & (1406-66-2) 1406-18-4(54 \\ & \text { se } 1 /(\mathrm{mmmn}) \end{aligned}$ | Tocopherol | Tocopheryl Acetate | 0.0007783500 |
| 7727-73-3(7757-82-6) | Sodium Sulfate | Sodium Hydroxide | 0.0000543825 |
| 7647-14-5 | Sodium Chloride | Sodium Hydroxide | 0.0000362550 |
| 7439-92-1 | Lead and its compounds | Glycerin | 0.0000145451 |
| 75-21-8 | Ethylene oxide | Phenoxyethanol | 0.0000145020 |
| 108-88-3 | Toluene | Tocopheryl Acetate | 0.0000124536 |
| 110-86-1 | Pyridine | Tocopheryl Acetate | 0.0000124536 |
| 7440-38-2 | Arsenic and its compounds | Glyceryl Stearate | 0.0000107931 |
| 7440-38-2 | Arsenic and its compounds | Glycerin | 0.0000087270 |
| 108-95-2 | Phenol | Phenoxyethanol | 0.0000072510 |
| 123-91-1 | 1,4-Dioxane | Polysorbate 20 | 0.0000062200 |
| 7439-92-1 | Lead and its compounds | Glyceryl Stearate | 0.0000053966 |
| 7439-89-6 | Iron Powder | Sodium Hydroxide | 0.0000036255 |
| 7439-97-6 | Mercury and its compounds | Glycerin | 0.0000029090 |
| 7440-43-9 | Cadmium | Glycerin | 0.0000029090 |
| 7439-97-6 | Mercury and its compounds | Glyceryl Stearate | 0.0000026983 |
| 7440-43-9 | Cadmium | Glyceryl Stearate | 0.0000026983 |
| 7440-47-3 | Chromium | Caprylic/Capric Triglyceride | 0.0000023869 |
| 7440-38-2 | Arsenic and its compounds | Caprylic/Capric Triglyceride | 0.0000023869 |
| 7439-92-1 | Lead and its compounds | Sodium Hydroxide | 0.0000018128 |
| 7440-47-3 | Chromium | Sodium Hydroxide | 0.0000018128 |
| 7440-02-0 | Nickel | Sodium Hydroxide | 0.0000018128 |
| 7439-96-5 | Manganese | Sodium Hydroxide | 0.0000018128 |


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Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## IMPURITIES

| CAS No | IMPURITY | SOURCE CHEMICAL | Concentration in finished product[C \%] |
| :---: | :---: | :---: | :---: |
| 7440-43-9 | Cadmium | Sodium Hydroxide | 0.0000014502 |
| 7440-66-6 | Zinc | Sodium Hydroxide | 0.0000014502 |
| 7439-95-4 | Magnesium | Sodium Hydroxide | 0.0000014502 |
| 7440-48-4 | Cobalt | Sodium Hydroxide | 0.0000014502 |
| 7440-39-3 | Barium | Sodium Hydroxide | 0.0000010877 |
| 7440-02-0 | Nickel | Caprylic/Capric Triglyceride | 0.0000009548 |
| 7782-49-2 | Selenium and its compounds | Sodium Hydroxide | 0.0000009064 |
| 7440-38-2 | Arsenic and its compounds | Carbomer | 0.0000008901 |
| 123-91-1 | 1,4-Dioxane | Phenoxyethanol | 0.0000007251 |
| 7440-70-2 | Calcium | Sodium Hydroxide | 0.0000007251 |
| 75-21-8 | Ethylene oxide | Polysorbate 20 | 0.0000006220 |
| 7440-38-2 | Arsenic and its compounds | Sodium Hydroxide | 0.0000005438 |
| 7440-50-8 | Copper | Caprylic/Capric Triglyceride | 0.0000004774 |
| 7439-92-1 | Lead and its compounds | Caprylic/Capric Triglyceride | 0.0000004774 |
| 7440-31-5 | Tin | Caprylic/Capric Triglyceride | 0.0000004774 |
| 7440-50-8 | Copper | Sodium Hydroxide | 0.0000003626 |
| 7439-92-1 | Lead and its compounds | Tocopheryl Acetate | 0.0000003113 |
| 71-43-2 | Benzene | Carbomer | 0.0000002225 |
| 7439-97-6 | Mercury and its compounds | Sodium Hydroxide | 0.0000001813 |
| 7440-36-0 | Antimony and its compounds | Sodium Hydroxide | 0.0000001813 |
| 7440-38-2 | Arsenic and its compounds | Tocopheryl Acetate | 0.0000001557 |
| 7440-02-0 | Nickel | Tocopheryl Acetate | 0.0000001557 |
| 7440-43-9 | Cadmium | Tocopheryl Acetate | 0.0000000778 |
| 7439-97-6 | Mercury and its compounds | Tocopheryl Acetate | 0.0000000156 |

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Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer

## Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## EXPOSURE TO POTENTIAL IMPURITIES

SED Product $=311.166667 \mathrm{mg} / \mathrm{kg} \mathrm{bw} /$ day

| INCI / Chemical Name | Concentration in <br> finished product <br> [C \%] | (Daily exposure <br> of product <br> (a g/day) | Systemic <br> Exposure Dose <br> (SED mg/kg bw/ <br> day) | NOAELs (mg/kg <br> bw/day) |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Iso-squalane | 0.0163453500 | 18.67 | 0.05086128 | Not Available | No MoS calculated as no NOAEL |
| available |  |  |  |  |  |


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Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## EXPOSURE TO POTENTIAL IMPURITIES

SED Product $=311.166667 \mathrm{mg} / \mathrm{kg} \mathrm{bw} /$ day

| INCI / Chemical Name | Concentration in finished product [C \%] | * Daily exposure of product (a g/day) | *nsystemic Exposure Dose (SED mg/kg bw/ day) | NOAELs (mg/kg bw/day) | MoS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cobalt | 0.0000014502 | 18.67 | 0.00000451 | 3 | 332407.099418 |
| Barium | 0.0000010877 | 18.67 | 0.00000338 | 0.21 | 31024.662612 |
| Selenium and its compounds | 0.0000009064 | 18.67 | 0.00000282 | 0.4 | 70913.514542 |
| Copper | 0.0000008399 | 18.67 | 0.00000261 | 0.1 | 19130.64915 |
| Calcium | 0.0000007251 | 18.67 | 0.00000226 | Not Available | No MoS calculated as no NOAEL available |
| Tin | 0.0000004774 | 18.67 | 0.00000149 | 1000 | 336593278.119666 |
| Benzene | 0.0000002225 | 18.67 | 0.00000069 | 100 | 72213375.218 |
| Antimony and its compounds | 0.0000001813 | 18.67 | 0.00000056 | Not Available | No MoS calculated as no NOAEL available |

*Daily exposure of product (A) estimated daily exposure as referenced by SCCS Notes of Guidance
** Dermal absorption (DAp): a worst case scenario 100\%
** Systemic Exposure Dose (SED) $=(\mathrm{A} \mathrm{mg} / \mathrm{g} \times \mathrm{C} / 100) / 60 \mathrm{mg} / \mathrm{kg} /$ day

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Manufacturer
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## LITERATURE SOURCES

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## Manufacturer

Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## LITERATURE SOURCES

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## Manufacturer

Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## LITERATURE SOURCES

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## Manufacturer

## Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## LITERATURE SOURCES

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Manufacturer

## Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## LITERATURE SOURCES

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Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## Manufacturer

## Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

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Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer

## Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

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## Manufacturer

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## Manufacturer

Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

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Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

## LITERATURE SOURCES



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Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer
Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

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Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer

## Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

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Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

Manufacturer
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## LITERATURE SOURCES



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Product Name
Cocoa Hand \& Body Butter 2000mg (2022-753-5050) (variant) CPSR EU/UK passed under condition

## Manufacturer

Eresos Health + Wellbeing LTD 14 A Commercial Road London N18 1TP

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Annex 1: Assessor Credentials

# Curricufum Vitae 

Agnieszka Teresa Nnolim<br>MScTox, MScEng, MRSC, CChem, CSci, EurChem, PostDip(Ind.Microb.), EUROTOX Registered Toxicologist

## Employment

- Toxicologist and Head of Safety ( $26^{\text {th }}$ February 2019 - present) - Nolichem Sp. z o.o. (Poland - EU)
- Toxicologist, Regulatory and Safety Assessor (2 ${ }^{\text {nd }}$ June 2014 - present) - Nolichem Consultancy Ltd (United Kingdom)
- Toxicology Consultant (September 2011 - May 2014) - Delphic HSE Solutions Limited (England-Europe)
- Toxicologist (August 2010 - August 2011) - Intertek Toxicology Assessment (England-Europe)
- Product Safety Assessor (June 2004 - July 2010) - Intertek Toxicology Assessment (England-Europe)
- Formulation Chemist and Microbiology Quality Assurance (October 2002 - May 2003) - Quiz Cosmetics
- Coordinator of Production and Microbiology (March 2001 - September 2002) - Bell Cosmetics Manufacturer
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Qualification and Education

## - EUROTOX Registered Toxicologist (EUROTOX / ERT)

- European Chemist ( EurChem)
- Chartered Scientist (CSCi)
- Chartered Chemist (CChem)
- MSc Degree in Applied Toxicology, Faculty of Health and Medical Sciences, University of Surrey, UK (January 2016)
- Advisory Board Member (World of the Cosmetic Industry, FARMACOM, Poland, since 2014)
- IELTS English Exam (Academic), University of Exeter, UK (2004)
- Postgraduate Diploma in Industrial Microbiology: Microbiology, Hygiene and Quality in Industry -Lodz University of Technology (Poland), Department of Biotechnology and Consumer Chemistry. Thesis: Cosmetic Products as a Source of Beauty and Aesthetics' in the Aspect of Microbiological Quality (2002)
- Diploma in Science Education of Chemistry, Mathematics and Physics -Cracow University of Technology (Poland) (2000)
- MSc(Eng) Degree in Chemical Engineering and Technology: Chemical Technology majoring in Inorganic Technology - Cracow University of Technology (Poland). Thesis: Investigating the Physical and Chemical Properties of Brines from Post-Electroplating Treatment Plants and the Possibility of their Utilization (1999)
- Academic Internship - Chemical Plant ALWERNIA the major producer of phosphorus and chromium compounds, nitrates and sulphates including food additives, fodders and fertilizers, Cracow (August 1998)

Skills and Expertise

- Animal studies and in vitro replacements in assessing the possible irritancy and sensitisation of chemicals to which man may be exposed.
- Tests for contact hypersensitivity using traditional animal models. Alternatives and progress that has been made toward each objective of (a) Refinement, (b) Reduction and (c) Replacement (Alternative Methodologists to Animas Studies)
- The relevance of in vitro studies for predicting in vivo skin absorption. Species differences - animal models currently used for in vitro and in vivo OECD-compliant studies (Dermal Toxicology).
- REACH and its impact on the 3Rs and the standard approach to risk assessment (Experimental Toxicology and Risk Assessment)
- Drug metabolism studies in experimental animals in the safety assessment of drugs in man (Toxicokinetics and Metabolism).
- Critical evaluation of the purpose of genotoxicity testing in drug development (Carcinogenicity and Mutagenicity).
- Process of atherogenesis in man and its model (Cardiorespiratory and Haematopoietic Systems).
- Apoptosis and the development of tissue damage following chemical injury (Toxicological Pathology).
- Risk assessment in the workplace and risk assessment in the wider environment (Occupational Toxicology)
- Endocrine disruptors - reproduction and development (Reproductive Toxicology)
- Endocrine tissues - mechanisms which control hyperplasia in glands such as thyroid (Endocrine System)
- Exposure to mercury and organic mercury and effects on neurological development during infancy (Central - Peripheral Nervous, Endocrine and Musculoskeletal Systems)
- Pre-clinical paediatric programme for treatment of epilepsy of children less than 3 months of age (Paediatric Toxicology)


## University Courses and Trainings (Selection)

- Target Organ Toxicology - System I : Liver, Kidney, Gastrointestinal Tract \& Skin, UK (July 2015)
- Target Organ Toxicology - System II: CNS, PNS, Endocrine and Musculoskeletal Systems, University of Surrey, UK (January 2014)
- Occupational Toxicology, University of Surrey, UK (November 2013)
- Reproductive Toxicology, University of Surrey, UK (October 2013)
- Alternative methodologies to the use of animals in toxicology, University of Surrey, UK (September 2013)
- Target Organ Toxicology - System III: Cardiorespiratory and Haematopoietic Systems, University of Surrey, UK (January 2013)
- The requirements of the EN ISO 22716:2009 Good Manufacturing Practice Guide (GMP), Poland (November 2012)
- Dermal Toxicology, University of Surrey, UK (September 2012)
- Toxicokinetics and Metabolism, University of Surrey, UK (May 2012)
- Carcinogenicity and Mutagenicity, University of Surrey, UK (March 2012)
- New Toy Directive, Intertek Leicester, UK (May 2011)
- Paediatric Toxicology, University of Surrey, UK (April 2011)
- Principles of Experimental Toxicology and Risk Assessment, University of Surrey, UK (Nov 2010)
- Human Repeat Patch Test (HRPT) study - application, reading and scoring training to investigative skin irritancy potential, Intertek - 4Front, Maldon, UK (April 2009)
- Committee on Toxicity $21^{\text {st }}$ Century Toxicology, Meriden, UK (Feb 2009)
- Implementing the Globally Harmonized System (GHS), Macclesfield, UK (April 2008)

2|Page 4 Lime Crescent, Willand, Cullompton, Devon, EX15 2S, UK agnieszka.nnolim@nolichem.com/ $0044(0) 7883751622$ www.nolichem.com

- Principles of Toxicological Pathology, University of Surrey, UK (June 2008)
- Professional Development Programme, Royal Society of Chemistry, UK (June 2007- Sep 2009)
- Advanced Toxicology Pharmaceutical Training International Course, AstraZeneca, London, UK (May 2007)
- Methodology and Principles of Toxicology, University of Surrey, UK (June 2006)


## Professional Membership

- Member of the UK Register of Toxicologists (EUROTOX)
- Member of the German Society for Toxicology (GT)
- Member of the Royal Society of Chemistry (RSC)
- Member of the Society of Cosmetic Scientists (SCS)
- Member of the US Society of Toxicology (SOT) - application in progress
- Member of the British Toxicology Society (BTS) - application to renew
- Member of the Chemical Hazards Communication Society (CHCS) - application to renew
- British Society for Investigative Dermatology (BSID) - application in progress


## Languages

- English Full professional proficiency
- Polish Native or bilingual proficiency
- French Limited working proficiency
- Russian Limited working proficiency


# Curriculum Vitae 

Dominika Maria Warchołek, MSc, BSc

## Professional Employment

## Safety assessor of cosmetic products - $1^{\text {st }}$ January 2022 - present - NOLICHEM Sp. z o.o., Cracow

Responsibilities:

- Checking regulatory and safety data and assessing consumer products
- Working closely with regulatory manager
- Communicating actively with the members of the team to ensure swift workflow


## Chemical Substances Technical Data Specialist, Trainee Safety Assessor-1 ${ }^{\text {st }}$ March 2021 -31 <br> December 2021 - NOLICHEM Sp. z o.o., Cracow <br> Responsibilities:

- Supporting the senior toxicologist and regulatory manager with the preparation and completion of safety assessments
- Preparing safety data sheets for cosmetic mixtures


## Technical and Regulatory Data Entry Specialist - $1^{\text {st }}$ October 2020- $\mathbf{2 8}^{\text {th }}$ February 2020 - NOLICHEM

## Sp. z o.o., Cracow

Responsibilities:

- Technical Data Entry
- Toxicological entry of chemical materials
- Carry out research and reports to help support the Senior Toxicologist
- Managing allocated workload to ensure tasks are completed on time and to a suitable quality
- Liaising with customers and other members of the team in order to ensure tasks are completed
- Customer service by phone or email


## Student Internship - (1 ${ }^{\text {st }}$ August 2018-11 ${ }^{\text {th }}$ September 2018)- EKO-LABOR Laboratorium Ochrony Środowiska i Higieny Pracy Spółdzielnia Pracy, Cracow <br> Responsibilities:

- Air sampling at workstations in industry for chemical analysis
- Measurements of the noise level and light intensity at the place of work in companies
- Determination of the dust concentration using the weight method
- Application of testing procedures
- Creation and interpretation of measurements results


## Qualification and Education

25 ${ }^{\text {th }}$ February 2019- $\mathbf{7}^{\text {th }}$ July 2020-Cracow University of Technology, Faculty of Chemical Engineering and Technology

- MSc in Chemical Technology, Industrial and Environmental Analysis

Thesis title: Development of method for the determination of vitamin C using UV-Vis Derivative Spectrophotometry
$\mathbf{1}^{\text {st }}$ October 2015- 30 ${ }^{\text {th }}$ January 2019-Cracow University of Technology, Faculty of Chemical Engineering and Technology

- BSc in Chemical Technology, Industrial and Environmental Analysis Thesis title: Determination of nitrite content in cold cuts and smoked meat


## Skills and Expertise

- Safety assessment of cosmetics
- Regulatory and safety data check and interpretation
- Material safety data preparation
- Familiarity with GC, HPLC, MS, UV-Vis spectroscopy
- Solid knowledge of NMR, IR, AAS
- Hands-on experience with spectrophotometric analysis
- Ability to use the MS Office Software
- Open to new interesting ideas and broaden knowledge
- Excellent communications and interpersonal skills
- Ability to multitask and work under pressure
- Ready to take challenges


## University Courses

- Physics and physicochemical bases of the methods of the chemical analysis
- Environmental protection in chemical technology
- Control of the quality of products
- Polish legislation in environmental protection
- Measurements of organized emission to the atmosphere
- The basis of the environmental analytics
- Selected field of analytical, physical, organic and inorganic chemistry
- Chemical speciation
- The analysis vestigial in investigations of environment
- Modelling of technological processes

Additionally:

- PN-EN ISO/IEC 17025 Internal Auditor Certificate - $3^{\text {rd }}$ July 2020 - TÜV Rheinland Poland


## Workshops and training in-house

- Testing of cosmetics preparation according to the EU and UK regulatory requirements $20^{\text {th }}$ April 2021
- Toxicological profile of the substances - $13^{\text {th }}$ April 2021
- CPNP Notification Portal - $26^{\text {th }}$ January 2021
- Packaging for cosmetic products EU - 19 ${ }^{\text {th }}$ January 2021
- Cosmetics Regulation in China - $12^{\text {th }}$ January 2021
- Safety Assessment and EU Requirements - $24^{\text {th }}$ November 2020
- UK Cosmetics Regulation (UKCR) - $18^{\text {th }}$ November 2020


## Languages

- English - professional working proficiency
- Polish - native and bilingual proficiency
- German - elementary proficiency


## Presentations in-house

- Cruelty-Free Certification - $14^{\text {th }}$ January 2021


## Publications in-house

- Dermatological tests of cosmetics $-13^{\text {th }}$ April 2021


## Conferences

- Online seminar organized by the Polish Chamber of Chemical Industry (PIPC) - Sustainable Chemistry- $19^{\text {th }}$ October 2021
- Home and Personal Care Ingredients (HPCI) Exhibition and Conference Warsaw 2021 Conference-22-23 ${ }^{\text {rd }}$ September 2021

