



## CERTIFICATION OF ANALYSIS

### MURUMURU VIRGIN BUTTER

<b>Scientific name:</b> <i>Astrocaryum murumuru</i>	<b>Product code:</b> BUTTMURU
<b>Source of Raw Material:</b> Amazonian Rainforest / Brazil	<b>Lot Number:</b> 4512505
<b>Part Used of the plant:</b> Kernel	<b>Best Before End:</b> July 2025
<b>Production Process:</b> Cold Extraction	<b>Traceability:</b> guaranteed
<b>Preservatives:</b> Absent	
<b>Solvent Extraction:</b> Absent	
<b>Origin of the Vegetable Drugs:</b> Wild crafted	

ITEM	UNITY	SPECIFICATION RANGE	TEST METHOD	ANALYTICAL RESULTS
<b>PHYSICAL CHEMISTRY</b>				
Appearance (25° C)	---	solid	Visual	In accordance
Color	---	White to beige	AOCS 1a 64 - 82	In accordance
Acid value	% weight	< 15	AOCS CD3D-63	0.38
Peroxide value	10 meq O <sub>2</sub> /kg	< 10	AOCS CD8 – 53	0.59
Iodine value	gI <sub>2</sub> /100g	10- 20	AOCS TG2A – 64	19
Saponification value	mgKOH/g	220 – 240	AOCS CD3 - 25	238
Melting point	°C	30 – 35	AOCS CC1 - 25	In accordance
<b>MICROBIOLOGY</b>				
Total bacteria	ufc/mL	<100	NF ISO 4833	Absent
Fungi and Yeasts	ufc/mL	<100	NF V 08-036	Absent
<b>RESULTS:</b> <input checked="" type="checkbox"/> <b>APPROVED</b> <input type="checkbox"/> <b>DISAPPROVED</b>				

FATTY ACID COMPOSITION		
Caprylic Acid	% weight	2 a 4
Capric Acid	% weight	1 a 3
Lauric Acid	% weight	40 a 50
Miristic Acid	% weight	28 a 33
Palmitic Acid	% weight	5 a 10
Palmitoleic Acid	% weight	2 a 4
Stearic Acid	% weight	2 a 5
Oleic Acid	% weight	5 a 10
Linoleic Acid	% weight	1 a 5
Saturated	%	90
Unsaturated	%	10

**ALLERGEN FREE CERTIFICATE**

**PRODUCT: Murumuru Butter** (virgin cold pressed)

7th Amendment to the European Cosmetics Directive 2003/15/EC of 27 February 2003

The 26 substances identified as potential allergens must appear clear in the list of ingredients of a finished product, when their concentration exceeds 0.001% in leave-on products and 0.01% in rinse-off products.

Substance (INCI name)	CAS number	Presence	Max. Concentration
Amyl cinnamal	122-40-7	No	Absent
Benzyl alcohol	100-51-6	No	Absent
Cinnamyl alcohol	104-54-1	No	Absent
Citral	5392-40-5	No	Absent
Eugenol	97-53-0	No	Absent
Hydroxy-citronellal	107-75-5	No	Absent
Isoeugenol	97-54-1	No	Absent
Amylcin-namyl-alcohol	101-85-9	No	Absent
Benzyl salicylate	118-58-1	No	Absent
Cinnamal	104-55-2	No	Absent
Coumarin	91-64-5	No	Absent
Geraniol	106-24-1	No	Absent
<i>Hydroxy-methylpentylcyclohexenecarboxaldehyd</i>	31906-04-4	No	Absent
Anisyl alcohol	105-13-5	No	Absent
Benzyl cinnamate	103-41-3	No	Absent
Farnesol	4602-84-0	No	Absent
<i>2-(4-tert-Butylbenzyl) propionald-hyd</i>	80-54-6	No	Absent
Linalool	78-70-6	No	Absent
Benzyl benzoate	120-51-4	No	Absent
Citronellol	106-22-9	No	Absent
<i>Hexyl cinnam-aldehyd</i>	101-86-0	No	Absent
<i>d-Limonene</i>	5989-27-5	No	Absent
<i>Methyl heptin carbonate</i>	111-12-6	No	Absent
<i>3-Methyl-4-(2,6,6-tri-methyl-2-cyclohexen-1-yl)-3-buten-2-one</i>	127-51-5	No	Absent
Oak moss extract (Evernia prunastri)	90028-68-5	No	Absent
Treemoss extract (Evernia furfuracea)	900028-67-4	No	Absent

06<sup>th</sup> of November 2017

FLOWCHART FOR THE PROCESSING OF COLD PRESSED  
MURUMURU SEED VIRGIN BUTTER

**Ingredients: MURUMURU SEEDS 100%**

RECEPTION OF 100% MURUMURU SEEDS AND REGISTRATION OF  
ORIGIN at the processing site in Ananindeua/Pará, North Brazil

VERIFICATION OF SEED QUALITY

DRYING OF THE SEEDS (< 60°C)

SEPERATING DIFFERENT SEEDS SIZES AND BREAKING THE HARD SHELL

SEPERATING MANUALLY KERNEL FROM HARD SHELL

GRINDING OF KERNELS

COLD PRESSING

FILTERING BY USING FILTER PRESS.

STORAGE OF MURUMURU SEED BUTTER IN CLOSED CONTAINER



## GMO-free CERTIFICATE

Madar Corporation Limited certifies that the cold pressed murumuru butter (*Astrocaryum muru-muru*) does not contain Genetically Modified Organisms (GMO) and therefore complies with the **European Legislation 1829/2003/CE** and **1830/2003/CE**.

13<sup>th</sup> of June 2018

BiOrigins, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK  
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Page 4 of 10

## SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product:	VIRGIN MURUMURU BUTTER ( <i>Astrocaryum murumuru</i> )
Production process:	Cold extraction
Origin:	Amazonian Rainforest, wildcrafted
Product use:	Personal Care Formulations
Supplier's name:	Madar Corporation Limited
Supplier's address:	19 - 20 Sandleheath Industrial Estate Fordingbridge, SP6 1PA
Emergency Telephone:	01425 655 555
Date issued:	14 <sup>th</sup> of January 2022

## SECTION 2 – HAZARDOUS IDENTIFICATION

Classification according to EC regulation 1272/2008 (CLP):

This substance is not classified as hazardous according to regulation (EC) 1272/2008 [CLP].

Classification according to Directive 67/548/EEC or 1999/45/EC.

This preparation is not classified as dangerous according to 1999/45/EC.

### GHS LABEL ELEMENTS

Classification according to EC regulation 1272/2008 (CLP):

<b>Signal word:</b>	Not applicable
2.1. Hazard Pictograms	Not applicable
2.2. Hazard Statements	Not applicable
2.3. Safety Precautions	
2.3.1. General Precautionary statements	P101: If medical advice is needed, have product container or label at hand P102: Keep out of reach of children P103: Read label before use
2.3.2. Prevention precautionary statements	P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/ doctor/ according to your area. P302 + P352: IF ON SKIN: Wash with plenty of water and soap P302: Call a POISON CENTER or doctor/physician if you feel unwell P331: Do NOT induce vomiting. P321: Specific treatment – see on this label P330: Rinse mouth P333 + P313: If skin irritation or rash occurs: Get medical advice/attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P405: Store locked up. P501: Dispose of contents/container in accordance with local/ regional/

	national/ international regulations
<b>Labelling (67/548/EEC or 1999/45/EC)</b>	
2.1. Hazard Symbol	Not applicable
2.2. Risk Phrases	Not applicable
2.3. Safety Phrases	S02 - Keep out of the reach of children. S23 - Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer). S37- Wear suitable gloves. S62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

### SECTION 3 – COMPOSITION /INGREDIENT INFORMATION

Substance or mixture:	substance
Ingredients:	Murumuru seeds
<b>INCI name</b>	<i>Astrocaryum murumuru</i> seed butter
Hazardous Components:	Not a hazardous material under the Department of Labor definitions. Is Generally Recognized As Safe (GRAS) under the Food, Drug and Cosmetic Act According to Classification 1999/45/EC not classified as hazardous According to Classification 1272/2208 not classified as hazardous
<b>REACH status (EC 1907/2006)</b>	This product is according to Annex 5, §9 exempted from the registration
CAS #:	356065-49-1
EINECS #:	609-150-7

### SECTION 4 – First Aid Measures

<b>Description of necessary measures, subdivided according to the different routes of exposure</b>	
Eyes:	Flush eyes with plenty of water or eye wash solution for at least 15 minutes - get medical attention if irritation persists
Skin:	Wash with soap and water - get medical attention if irritation persists
Ingestion:	If ingested in large amounts can cause nausea, vomiting and diarrhea
Inhalation:	Under mist conditions, no short term inhalation limits
Acute:	Not known

### SECTION 5 – FIRE FIGHTING MEASURES

Flash point and Method:	Not determined
Autoignition:	Not determined
Boiling point:	Not determined
Extinguishing Media:	CO2, Dry Chemical, Foam
Special Fire Fighting Procedures:	Class B Fire; Application of water to burning oil can cause splattering; oil will float; use air supplied equipment for fighting interior fires.
Unusual Fire & Explosion Hazards:	
Explosion Hazard:	None
Possible risk of auto ignition/spontaneous combustion under high temperature/closed conditions if material is absorbed on various matrices and oxygen present.	

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

If material is spilled:	No specific hazards: material is non-hazardous; if in mist form and levels are above 15g/m <sup>3</sup> (total), a dust mask and goggles are required
Personal Precautions:	
Respiratory Protection:	Not normally needed
Ventilation:	Intermittent clean air exchanges recommended, but not required
Protection gloves:	Not normally needed
Eye Protection:	Not normally needed
Environmental precautions:	Dispose of in accordance with local, state and federal regulations

## SECTION 7 – HANDLING & STORAGE

Handling:	No special requirements
Storage requirements for storage areas and containers:	Store in a cool, dry location, in a sealed container, don't expose to direct sunlight, keep storing temperature below 77°F (25°C)
Shelf life:	24 months, should be stored tightly sealed, protected from light and heat

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection:	Safety Glasses
Skin Protection:	N/A
Respiratory Protection:	Not needed under normal conditions of use
Ventilation:	Area should be well ventilated
Special:	N/A
Mechanical:	N/A
Other Protective Clothing:	None
Work/Hygienic Practices:	Normal work and hygiene practices for handling non-hazardous liquid material

## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Physical State:	Solid
Appearance:	White-yellow
Odor:	Typical vegetable oil odor, characteristic
Specific density	0,9325
Solubility in water:	Insoluble
Liquid surface tension:	25 dynes/cm @ 20°C
Melting point:	33 - 35° C
Vapor pressure (mm Hg):	N/A
Evaporation rate:	Greater than 1
Water reactive:	No

## SECTION 10 – STABILITY & REACTIVITY

**MATERIAL SAFETY DATA SHEET (MSDS)**  
**VIRGIN MURUMURU BUTTER (*Astrocaryum murumuru*)**

Stability:	Generally stable, becomes rancid on extended exposure to air, avoid strong oxidizers
Conditions to avoid:	N/A
Incompatibility:	None
Hazardous Decomposition Products	N/A
Hazardous Polymerization:	Will not occur

### SECTION 11 – TOXICOLOGICAL INFORMATION

Acute toxicity:	Acute effects are not expected after exposure to the product. DL50 oral: not determined DL50 dermal: not determined CL50: not determined
Skin irritation:	May cause mild skin irritation
Eye irritation:	May cause mild irritation to eyes
Respiratory or skin sensitization	not expected sensitizing effects after exposure to the product
Germ cell mutagenicity	not expected that the product presents mutagenic potential
Carcinogenicity	Not expected that the product has carcinogenic potential
Reproductive toxicity	Not expected that the product present to potential toxicity reproduction
Systemic target organ toxicity - single exposure	Systemic effects are not expected after a single exposure to the product
Systemic target organ toxicity – repeated exposure	systemic effects are not expected after repeated and prolonged exposure to the product
Aspiration Hazard	not determined

### SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:	Product does not present risk
Persistence and degradability	Good degradability
Bioaccumulative potential	No bioaccumulation
Mobility in Soil	Well-tolerated
Other Adverse Effects	Not determined

### SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method(s):	Physically clean up, check local landfill disposal requirements
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### SECTION 14 – TRANSPORTATION INFORMATION

DOT classification:	Not a DOT controlled material (USA); ship as raw material for cosmetically use, not to be loaded with incompatible materials including poisons.
Class/Divison:	Not restricted
Proper shipping name:	N/A
Label:	None
Packing group:	N/A
ID number:	N/A
Hazard:	N/A



**SECTION 15 – REGULATORY INFORMATION**

Immediate (Acute) Health	N
Sudden Release of Pressure	N
Delayed (Chronic) Health	N
Reactivity	N
Fire	N
State Right-To-Know (RTK) Information: Check with specific state authorities since regulations vary within the states.	

**SECTION 16 – ADDITIONAL INFORMATION**

To the best of our knowledge, the information contained herein is accurate and is provided in good faith to comply with applicable federal and state laws. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and should be used with caution, although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

NA = Not Applicable ND = Not Determined



## **VEGAN CERTIFICATE FOR MURUMURU BUTTER**

WE HEREBY CERTIFY THAT THE MURUMURU BUTTER (*Astrocaryum murumuru*) DOES not contain ingredients of meat, fish, fowl, animal by-products (including silk or dyes from insects), eggs or egg products, milk or milk products, honey or honey bee products, or be clarified or finished with any animal products.

Futhermore, Murumuru Butter did not get in contact with animal products during manufacturing process.

15<sup>th</sup> of April 2019