

TECHNICAL DATA PACKAGE

BUTCHER'S BROOM EXTRACT 10% (RUSCOGENINS-UV/VIS)

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PRODUCT SPECIFICATION SHEET

IDENTIFIC/	ATION	11(00001)	SPECIFICATION SHEET	
NAME		BUTCHER'S BROOM EXTRACT 10%		
BOTAN	ICAL NAME		Ruscus aculeatus L.	
PLANT	PART(S) USED		Root	
SHELF			3 Years / 36 Months	
SOLVE	NT USED		Ethanol and Water	
EXTRA	CTION RATIO		5-7:1	
COUNT	TRY OF ORIGIN OF PRODU	JCT	Spain	
COUNT	TRY OF ORIGIN OF BIOMA	SS	Europe	
EXCIPI	ENTS		Maltodextrin and Silicum dioxide	
PHYSICAL	& CHEMICAL ANALYSIS			
PARAN	<u>IETER</u>		SPECIFICATION	<u>METHODS</u>
1	APPEARANCE		Light yellowish-brown coloured powder	Visual
2	TASTE & ODOUR		Characteristic	Organoleptic
3	IDENTIFICATION		Complies	Eur.Ph. current monograph "1880"- Identification
4	TOTAL ASH		NMT 20,0%	USP <561>
5	LOSS ON DRYING		NMT 5,0% (m/m)	USP <731>
6	DENSITY	BULK DENSITY	NLT 0,30g/ml	USP <616>
		TAPPED DENSITY	NLT 0,40g/ml	USP <616>
7	PARTICLE SIZE (Mesh)		NLT 95% (w/w) < 180 mesh	USP <786>
8	ASSAY	Ruscogenins (dry basis)	NLT 10%	UV/Vis- Internal method
	LOGICAL CONTROL			
PARAM	<u>IETER</u>		SPECIFICATION	<u>METHODS</u>
	TOTAL AEROBIC MICRO	DBIAL COUNT (TAMC)	NMT 10000 CFU/g	USP <61>
	TOTAL COMBINED YEA	STS & MOULDS COUNT (TYMC)	NMT 100 CFU/g	USP <61>
	E. COLI		Absent/g	USP <62>
SALMONELLA		Absent/25g	USP <62>	
	BILE TOLERANT GRAM	-NEGATIVE BACTERIA	NMT 100 CFU/g	USP <62>
CONTAMIN	NANTS			
PARAM	<u>IETER</u>		SPECIFICATION	METHODS
	HEAVY METALS			
		LEAD (Pb)	NMT 3,0ppm	I.C.P. – MS – Raw material
		CADMIUM (Cd)	NMT 2,0ppm	I.C.P. – MS – Raw material
		MERCURY (Hg)	NMT 0,5ppm	I.C.P. – MS – Raw material
		ARSENIC (As)	NMT 2,0ppm	I.C.P. – MS – Raw material
	AFLATOXINS			
		B1	NMT 2,0 ppb	Raw material- Eur.Ph. ed. 2.8.18
		B1+B2+G1+G2	NMT 4,0 ppb	Raw material- Eur.Ph. ed. 2.8.18
	PESTICIDES	51-52-01-02	USP 561	GC-MS/LC-MS
	RESIDUAL SOLVENTS	Ethanol	NMT 5000ppm	GC- MS
STOPACE		ner tightly sealed and store in a dry	place in placed original container	
		• · · ·	place in closed original container. AND PROCESSED AT POLÍGONO INDUSTF	RIAL DE BUÑUEL CALLE B. №5 BUÑUEL
), SPAIN. TO MEET SUAN			
			José Manuel Crespo	
			C ATLE LAND NE LA D'ANA	
			Quality Head - Nutra Division-	



ALLERGEN STATEMENT

We, Suanfarma, hereby declare the absence or presence of each allergen or intolerance according to the major Food Allergens specified in the US Federal Law of Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA) and EU Directive 2003/89/CE amending EU Directive 2000/13/CE in the table below for **BUTCHER'S BROOM EXTRACT EXTRACT 10%**:

SUBSTANCES OR PRODUCTS CAUSING ALLERGIES OR INTOLERANCES as per Annex II of FIC regulation	Direct incorpor as a base ra material or derivative fo (including the ca the additives, an processing a	aw in rm arriers, nd the	Presence on th production line	•	Presence in the productions works		Presence on th production facto	-
	Yes (precise nature)	No	Yes (precise nature)	No	Yes (precise nature)	No	Yes (precise nature)	No
Cereals containing gluten (1) and products thereof		Х		Х		х		х
Crustaceans and products thereof		Х		Х		х		Х
Eggs and products thereof		Х		Х		Х		Х
Fish and products thereof		Х		Х		Х		Х
Peanuts and products thereof		Х		Х		Х		Х
Soybeans and products thereof		х	X (Soy Isoflavones extract)		X (Soy Isoflavones extract)		X (Soy Isoflavones extract)	
Milk and products thereof (including lactose)		Х		Х		Х		Х
Nuts (2) and products thereof		Х		Х		Х		Х
Celery and products thereof		Х		Х		Х		Х
Mustard and products thereof		Х		Х		Х		Х
Sesame seeds and product thereof		Х		Х		х		х
Suphur dioxide and sulphites at concentrations of more than 10mg/kg or 10mg/l expressed as SO ₂		х		х		x		x
Lupin and products thereof		Х		Х		Х		Х
Mollusc and products thereof		Х		Х		Х		Х

NOTES TO THE TABLE:

- (1) Cereals containing gluten, namely: wheat, rye, barley, oats, spelt, kamut or their hybridized strains, and products thereof, except:
 - a. Wheat based glucose syrups including dextrose.
 - b. Wheat based maltodextrin.
 - c. Glucose syrups based on barley.
 - d. Cereals used for making alcoholic distillates including ethyl alcohol of agriculture origin.
- (2) Namely, almonds (Amygdalus communis L.), hazelnuts (Corylus avellana), walnuts (Junglans regia), cashews (Anacardium occidentale), pecan nuts (Carya illinoinensis (Wangenh.) K. Koch), Brazil nuts (Bertholletia excelsa), pistachio nuts (Pistacia vera), macadamia or Queensland nuts (Macadamia ternifolia), and products thereof, except for nuts used for making alcoholic distillates including ethyl alcohol of agricultural origin.

José Manuel Crespo Quality Head – Nutra Division SUANFARMA

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MANUFACTURING PROCESS FLOW CHART Product Name: BUTCHER'S BROOM EXTRACT 10% **RAW MATERIAL** Ruscus aculeatus Root Ţ RECEPTION Control 1 - Raw Material **EXTRACTION** Control 2 Ethanol / Water CONCENTRATION Control 3 DRYING **MILLING** Silicon dioxide HOMOGENIZATION Maltodextrin (If necessary) **BUTCHER'S BROOM** Control 4- Finished product EXTRACT 10% **PACKAGING &** LABELLING



SECTION 1: PRODUCT & COMPANY IDENTIFICATION

1.1 Product Identifier: Product Name: Botanical Name:

1.2 Supplier details: Supplier Name: BUTCHER'S BROOM EXTRACT 10% Ruscus aculeatus L.

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1.3 Emergency number:

CHEMTREC (24hr Access) International CHEMTREC, 800-424-9300 call: +1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification

None, if it is used as the intended purpose.

2.2 Labelling

None, if it is used as the intended purpose.

2.3 Other hazards

None, if it is used as the intended purpose.

3.1 Component

Substance	Ruscus aculeatus Extract	Maltodextrin	Silicon dioxide
CAS	84012-38-4	9050-36-6	112945-53-5 7631-86-9
EINECS Number	281-682-9	232-940-4	231-545-4



SECTION 4: PRECAUTIONS FOR SAFE HANDLING AND USE

4.1 First aid measures:

General advice	In case of adverse health effects seek medical advice.
If inhaled	After prolonged or massive inhalation of the powder, remove from the exposure to fresh air. Get medical attention for any breathing difficulty.
In case of skin contact	Rinse with running water.
In case of eye contact	Rinse immediately with plenty of running water (for 10 minutes). Get medical attention, it is necessary.
If swallowed	After massive ingestion, rinse the mouth. Drink 1-2 glasses of water, and get medical attention, it is necessary.

- **4.2 Most important symptoms and effects (acute and delayed):** No data available.
- **4.3 Indication of any immediate medical attention and special treatment needed:** No data available.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

Suitable extinguishing media: Special hazards: Special protective equipment for fire fighters: Water spray jet. Extinguishing powder. Carbon monoxide may be formed during combustion. Wear self- contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURE

Personal precautions: Avoid dust formation. Methods and material for containment and cleaning up: Remove mechanically

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	Minimize dust formation and accumulation. Use adequate ventilation. Avoid open flames and sources of ignition.
Storage Conditions:	Store in a tightly sealed container. Store in a cool, dry well-ventilated place in closed original container at recommended temperature <30°C and away from heat and direct sun light.



SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

Additional information for system design	Ensure good ventilation/suction at the workplace
Respiratory protection	Use precaution to avoid inhalation. In absence of suitable containment facilities, a dust mask should be worn when handling small quantities of material. For larger quantities, a dust respirator is recommended.
Hand protection	Wear protective gloves
Eye protection	Wear safety glasses
General protection and hygiene measures	immediately remove soiled or soaked clothing. Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

Physical state: Appearance: Odor: Color: pH: Boiling point: Melting point: Flash point: Evaporation rate: Flammable limits: Self-flaming: Explosion limits: Combustion properties: Vapor pressure: Refractive Index: Density: Solubility: Sharing coefficient: Viscosity	Solid Powder Characteristic Brown N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.A
Viscosity Loss on drying	N.A. NMT 5%

SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity: Conditions to avoid:	This product presents no significant reactivity hazard. Avoid temperatures over 30°C, open flames and sources of ignition. Keep away from heat and direct
	sun light.
Hazardous decomposition products:	Carbon monoxide may be formed during combustion.

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SECTION 11: HEALTH HAZARDOUS

Information on toxicological effects General toxicological information

No data available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: Persistence and degradability: Bio accumulative potential: Mobility in soil: PBT and vPvB assessment: Other adverse effects: No data available. No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Product

Contaminated packing:

Collection and delivery to recycling enterprise or other official elimination institution.

Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

UN number: UN proper shipping name: Transport hazards class: Packing group: Environmental hazards:

Special precautions for users:

Transport in bulk (Annex II of Marpol): Transport in bulk (IBC Code): Not applicable. Not applicable. Not applicable. Does not meet classification as hazardous for environment. Not hazardous according to RID/ADR, GGVS/GGVE, ADNR, IMDG, ICAO-TI/IATA-DGR. Not applicable. Not applicable.



SAFETY DATA SHEET

(According to Regulation 453/2010)

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance

EU Regulations: Contains no substances with annex XVII restrictions Contains no substances on the REACH Candidate list Contains no REACH Annex XIV substances Chemical safety assessment

A chemical safety assessment has not been carried out for the mixture

SECTION 16: OTHER INFORMATION

The information contained herein is based on the current state of knowledge and describes the product from the standpoint of appropriate precautions for use, handling, transport, and storage. There is no guarantee of product properties.

This information above is believed to be accurate and represents the best information currently available to us.

The user is responsible for verifying the data on the present MSDS and determining whether the product is suitable for your particular purpose and assume all risk of use, handling, and disposal of waste.

This information relates only to the product and does not relate to the combinations that can be made from this or processes that can be included.



ADDITIONAL INFORMATION

We, SUANFARMA, hereby declare that BUTCHER'S BROOM EXTRACT 10% is manufactured in accordance with the following guidelines:

- Botanical source: Ruscus aculeatus L.
- The above material is manufactured in Spain.
- The biomass used is from Europe.
- No animal derived products have been used in the manufacture of the above material. The product does not enter in contact with animal derived material. For these reasons this material is free from components which can cause Bovine Spongiform Encephalopathy (BSE) or Transmissible Spongiform encephalophagy (TSE).
- The above material has not been genetically modified or exposed to genetically modified organisms during the production process and is therefore GMO free (according to EU Regulation 1829/2003 & 1830/2003).
- The above material complies with the pesticide limits set forth by USP<561>.
- Only the following organic solvents are used in the manufacturing process: Ethanol&Water.
- The above material complies with Aflatoxin limits fixed by USP.
- The above material complies with California Proposition 65 Compliance and is safe for human consumption.
- The above material and its constituents are naturally free of products containing gluten.
- The above material and its constituents is free of Melamine and PCB's.
- The above material is suitable for vegetarian and vegan consumption.
- This material has not been tested on animals.
- The above material does not contain any ingredient specified in EU Directive 2003/89/CE amending EU Directive 2000/13/CE: wheat, rye, barley, oat, spelt, kamut, crustacean, egg, fish, peanut, soybean, milk, nuts (almonds, hazelnuts, walnuts, cashew, pecan nuts, Brazil nuts, pistachio nuts, macadamia), celery, mustard, sesame seeds, lupin, molluscs and products made thereof.
- The above material has been affirmed as GRAS by FDA, when used within the limitations set forth in 21 CFR 172.510.
- The above material has not been irradiated per 7CFR 205.105(f) requirements with understanding that "irradiation" shall be defined as outlined in 21CFR 179.26.
- The above material and its raw material have not been treated with ethylene oxide (ETO) or any other chemical sterilization agent.
- At no point in the process is the above material is manufactured, handled, or comes in contact with sewage sludge, as defined in 7 CFR 205.105(g).
- The above material neither contains nor comes in contact with banned substances listed by NSF, NFL, and WADA.
- The above material is Kosher certified.
- The above material is Halal suitable but NOT Halal certified.



The BUTCHER'S BROOM EXTRACT 10% is composed by the following:

- 50%-80% Native Extract
- 20%-50% Maltodextrin (Characteristics: Corn, Food grade, Geographical origin Europe)
- 0%-2% Silicon Dioxide (Characteristics: Food grade, geographical origin Europe)

Typical nutritional data for the above material are as follows:

PARAMETER	RESULT	UNITS
Energy	50	kCal/100g
Protein	< 15	g/100g
Fat	< 6	g/100g
Carbohydrates	< 90	g/100g

José M. Crespo Quality Head – Nutra Division SUANFARMA

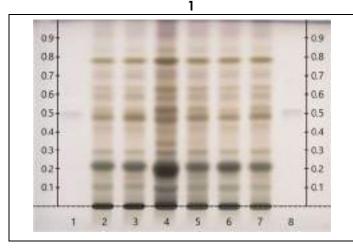
Certificate Issued To: SUANFARMA, Inc. 17-09 Zink Place, Unit 7 Fair Lawn, NJ 07410-2018 USA

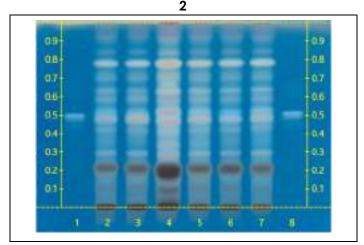


Exclusive Distribution by: SUANFARMA 17-09 Zink Place - Unit 7 Fair Lawn, NJ 07410, USA Tel. +1-201-343-1188 www.suanfarmausa.com Work performed at: Alkemist Labs 12661 Hoover Street Garden Grove, CA 9284

Garden Grove, CA 92841 714-754-HERB (4372) 714-668-9972 (FAX) Sales@Alkemist.com www.Alkemist.com

<u>Certificate of Analysis:</u> BUTCHER'S BROOM EXTRACT 10% (074/2022) High Performance Thin-Layer Chromatography with Photo-Documentation





Company Name:	SUANFARMA, Inc.
Title:	BUTCHER'S BROOM EXTRACT 10%
Plant Part:	root
Sample Received:	06/03/22
Sample Packaging:	Foil Pouch
Form of Botanical:	powdered extract
Appearance:	Fine Powder
Source Location:	SuanFarma
Lot Number:	(074/2022) →Lane 4(3µl)
Sample:	22154GYU_1
Latin Name:	Ruscus aculeatus L. [Liliaceae]
Reference Sample:	Lane 2(3µl) (US02111AB), Lane 3(3µl) (US15714MRH1), Lane 6(3µl) (US15614MBS1), Lane 7(3µl) (18354LCP) Ruscus aculeatus (root); held at Alkemist Labs, Garden Grove, CA.
Analyst:	J.Mares, K.Chopra, K.Montoya, K.Tran, M.Levine, N.Carson, N.Hoang, N.Afendikova, P.Hoang, S. Kabbaj, S.Sudberg, T.Louis, D.Robinson 177739
Sample Preparation:	0.3g+3mL 70% grain Ethanol, sonicate/heat at 50° C for 30 min.
Stationary Phase:	Silica gel 60, HPTLC plates
Mobile Phase:	chloroform: Acetic acid: methanol: water [6/3.2/1.2/0.8]
Detection:	(1) Vanillin/Sulfuric, 110°C, 2min, vis (Reich, E., 2007)
	(2) Vanillin/Sulfuric, 110°C, 2min, 366nm (Reich, E., 2007)
Reference Standard:	Lanes 1 (3µl) and 8(3µl) Escin (BCBS3452V, SigAl), Methanol (0000245307, BDH)
Reference Source:	Plant Drug Analysis, Wagner, H., 1996
	IDT-SOP-72-01
Comments & Conclusio	Ins: Lane 4 is the test sample BUTCHER'S BROOM EXTRACT 10% (074/2022). Lanes 2, 3, 6, 7, are the reference sample

<u>Comments & Conclusions:</u> Lane 4 is the test sample BUTCHER'S BROOM EXTRACT 10% (074/2022). Lanes 2, 3, 6, 7, are the reference samples used for comparison. This test sample, BUTCHER'S BROOM EXTRACT 10% (074/2022) is consistent with the chromatographic profile of the reference samples of *Ruscus aculeatus*, used above. This test sample BUTCHER'S BROOM EXTRACT 10% (074/2022) has characteristics of *Ruscus aculeatus* root.

NOTE: The above conclusion may be a function of the natural variance found in botanicals &/or the extraction process used to create specific extracts. The growing and drying conditions, age, seasonal variations, geographic location, extraction solvents, etc. all play a role in the phytochemical fingerprint of botanicals as well as their extracts; hence, chromatographic variations are expected.

Examined, Reviewed & Authorized by: Khanh N Tran, HPTLC, R&D Supervisor, Alkemist Labs

ISO/IEC 17025

CERTIFICATE #2051.01

Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to 074/2022. This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report is for the exclusive use of the party who requested the report and not for public dissemination or use by third parties, including for promotional purposes, without the prior written permission of Alkemist Labs, Inc. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented or abstracted in any manner. Any violation of these conditions renders the report and its results void. © 2022Alkemist Labs, Inc. All Rights Reserved



Report Date: 06/08/22



Nutri Analytical Testing Laboratories

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Laboratory Report

Suan Farma

17-09 Zinc Place, Unit 6&7 Fair Lawn, NJ 07410, USA Email: josecrespo@suanfarma.com Attn: Jose Crespo

 Received Date:
 06/21/2022

 Report Date:
 07/13/2022

Client Sample Description: Butcher's Broom Extract 10% Lot #074/2022

Test ID #: 202206035-7

Analyses	Claim	Result
Ruscogenis	>10%	10.4%
Mathadulupic		

Method: UHPLC

Nutri Analytical Testing Laboratories

Lab. Manager: Ling Zhang

BUTCHER'S BROOM EXTRACT10% TP REVISION R2.2022