

**CAMPO HYDRIN 1, CAMPO HYDRIN 2
NOVEL ACTIVE INGREDIENTS FOR
SUBSTANTIVE NEW YOUNG SKIN-
COLLAGEN BUILD-UP FORMATION
AND COLLAGEN REPLENISHING
MECHANISM
(ISOLATED FROM SONGYI MUSHROOM)**



CAMPO RESEARCH PTE LTD

Level 30, 6 Battery Road, Singapore 049909

Tel: (65) 63833203 / 202 / 63833631

Direct Fax (65) 63833632 / 63834034

Email: sales@campo-research.com Website: <http://www.campo-research.com>

CAMPO® Multi-Purpose Cosmetic Base Chemicals & Active Ingredients

CAMPO® Novel Functional Active Cosmetic Ingredient & Raw Materials

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IMPORTANT NOTICE

Specifications may change without prior notice. Information contained in this technical literature is believed to be accurate and is offered in good faith for the benefit of the customer. The company, however, cannot assume any liability or risk involved in the use of its natural products or their derivatives, since the conditions of use are beyond our control. Statements concerning the possible use are not intended as recommendations to use our products in the infringement of any patent. We make no warranty of any kind; expressed or implied, other than that the material conforms to the applicable standard specifications.

Ask about our Herbal Natural Products Chemistry Consultancy Services – Product Registration EEC/UK New Drug Development (NDA-US); Quasi-Drug Topicals (MOHW_Japan); Development of Standards, Analysis & Profiles of Phytochemicals; Literature searches, Cultivation of Medicinal Plants, Clinical-Trials, Development of new uses for Phytochemicals and Extracts; Contract Research and Development Work in Natural Products for Novel Drugs, New Cosmetic Active Ingredients for Active Topica/OTC Cosmetic with functionality and Consumer-perceivable immediate-results, New Food Ingredients for Nutraceuticals & Functional Foods.

Campo Research Product Literature

CAMPO TRUE HUMAN SKIN IDENTICAL SOLUBLE HYDRINS II (SONGYI MUSHROOM ISOLATE)

What is Hydrin I and II (ex-Songyi mushroom isolate) ?

Corium layer of the human skin (i.e. the dermis) contains collagen which is the principal protein constituent of the connective tissues, skin, tendon and bone. The corium layer, for example consists of 90 to 95% collagen, on dry basis; and the important pre-cursors and their functional catalysis for the water-electrolyte regulation, water-balance activity and hydro-osmotic activity are peptides - amino acid residues cross-linked to vasotocin are known as **Hydrins - a sub-micro-molecule**.

Hydrins are also known to exist in other kingdoms such as plant kingdom - succulent vegetables, mushrooms and plants, and in animal kingdom - amphibians, etc.

Hydrins I forms the basis of the skin's acid mantle and Hydrins II forms the basis of moisture-barrier of the skin's corium layer. Both Hydrins I and II are uniquely involved with the replenishing build-up of new collagen formation (conversion of procollagen to collagen), maintenance of collagen, maintenance of the optimal healthy skin conditions and skin-healing.

Cross-linked vasotocin (a neuro peptide) which is a messenger chemical from the pituitary glands to the skin with instruction to form Hydrins - a small penetrative molecule on contact with dermis and epidermis to replace loss (aging adults) or form new Hydrins (as in young adults).

A spontaneous function of formation/build-up of new collagen as structural links) takes place when new Hydrins are formed.

This thereby results in better skin elasticity and firmness of the skin

In-vitro studies have shown neutral salt soluble and/or alkaline soluble collagen fibers and acid soluble collagen may be an intermediate phase in the **Hydrins based formation/build-up**. These **formation/build-up** contain collagen in its monomeric form (tropocollagen) which structurally consists of three helical polypeptide chains wound round each other to form a coil. In in-vitro assays, Hydrins assisted/formed tropocollagen behaves as a rigid rod with molecular weight of approximately 350,000 a diameter of 14°A and a length of 3,000°A irrespective of its source (human, animal, or plant).

Optical rotation, viscosity and ultra-centrifugation studies have demonstrated that **Campo Hydrins** assisted collagen **formation / build-up** possess the characteristics of tropocollagen with high viscosity, structural tensile strength and high optical rotation values of human skin **collagen**, thereby augmenting skin (skin augmentation).

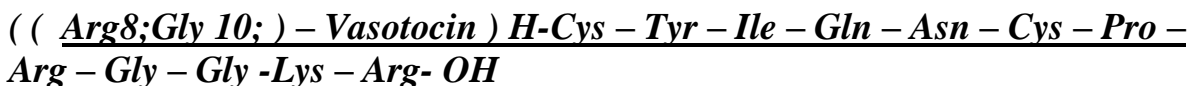
Hydrins - (small penetrative molecules) assisted collagen formation/ build-up produces a pronounced and immediate effects when Hydrins included in skin care compositions, leaving the skin feeling smooth and velvety. The **Hydrins based replenished collagen build-up** is complex triple helix structure gives it high moisture retention properties. And greatly increased the skin elasticity and firmness.

Hydrins on its own acts to impart lasting moisturization and a silk-smooth feel; and acts to provides protective colloidal structural firmness and as a barrier against water-loss. Campo Hydrins are designed to be replacement of non-functional collagen macromolecules in a topical cosmetic formulation as the collagen are of large structure and do not penetrate the skin to provide any benefits from within the skin in augmenting the skin-firmness.

Hydrins acts as a reservoir, improving elasticity and combating dry flaky skin conditions.

Campo Hydrins are originally designed and sold exclusively for a major cosmetic brand in Japan (1994) and is the novel mushroom-derived non-animal replacement for **Bovine Serum Albumins (B.S.A)** (Comparisons secondary screening evaluation assays and in-vitro screening evaluation available on request.)

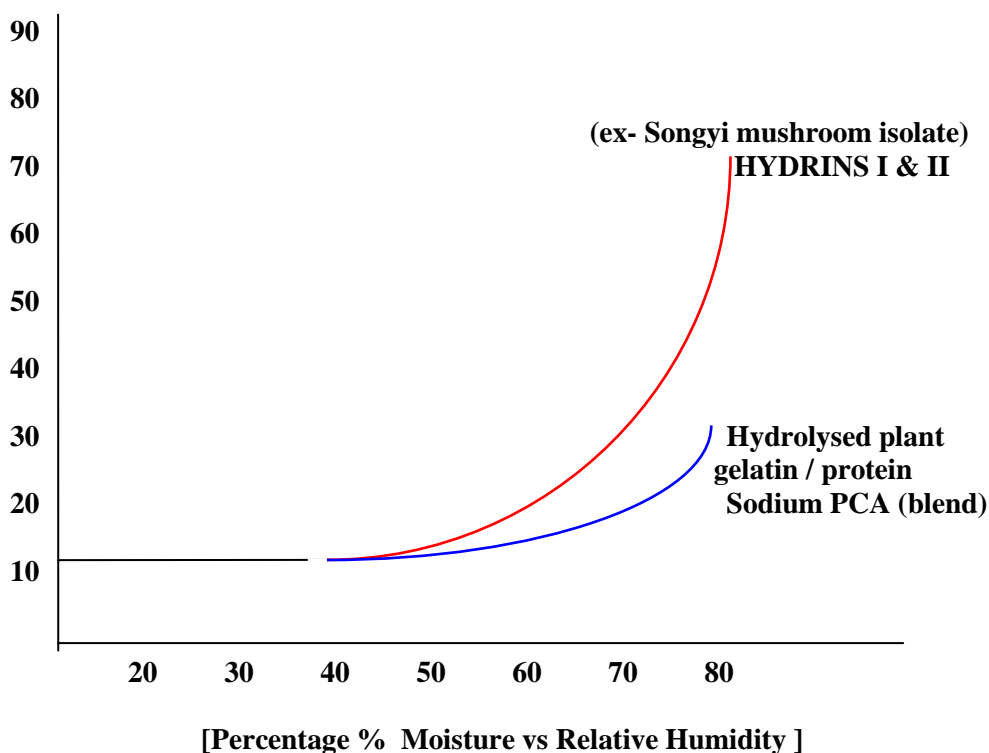
STRUCTURE



Characteristic

Moisture retention

The following graph illustrates the water retention properties of Hydrins I & II, compared with a typical hydrolysed plant gelatin / protein and sodium PCA combination blend.



Campo Hydrins are novel entities solubilised in purified water and stabilised with natural hydroxy-ceramides to easy formulating procedures and for formulating a highly immediately – consumer perceivable cosmetic skin-moisturizing formulations.

Method of Mfg.: Isolation of songyi mushroom

CAMPO HYDRINS I

pH (20°C) (100% Concentrate)	5.0 – 7.8
Dry weight	55.0 – 70.5 %
Specific gravity	1.010 1.300
Refractive index	1.200 – 1.450
Color	Turbid cloudy transparent to clear colorless
Appearance	Liquid solution

CAMPO HYDRINS II

pH (20°C) (100% Concentrate)	4.5 – 6.5
Dry weight	55 – 70.5 %
Specific gravity	1.000 1.200
Refractive index	1.200 – 1.450
Color	Turbid cloudy transparent to clear colorless
Appearance	Liquid solution

Product Formulations – application dosages:

Moisturizers	5 - 50%
Wrinkle cream	5 - 50%
Shampoos	3 - 40%
Eye creams	3 - 40%

FORMULATION GUIDELINES

Moisturizing Cream	51%	Water
	5%	Glycerol
	6%	Hydrin 2
	5%	Tretonin CG
	5%	Ceramide oil
	4%	Propylene glycol
	5%	Cetylic alcohol
	15%	Hydrin 1
	1%	Preservative
	<1%	Alpha-Ceramidein
	<1%	Fragrance & Color
<1%	Triethanolamine to adjust pH 7	

Wrinkle Cream	52.5%	Water
	7%	Glycerol
	5%	Tretonin CG
	5%	Hydrin 2
	5%	Propylene glycol
	5%	Cetylic Alcohol
	3%	Ceramide oil
	15%	Hydrin 1
	1%	Preservative
	<1%	Fragrance
	<1%	Triethanolamine to adjust pH 7

Eye Cream	60%	Water
	5%	Propylene glycol
	15%	Hydrins 2
	8%	Hydrins 1
	10%	Alpha-Ceramidein
	<1%	Fragrance & Color
	<1%	Triethanolamine to adjust pH 7

Carbopol compounds or Campo Camigel 1 or 2 can be used to increase the viscosity (to make more viscous products) of the above formulations.

**Campo Research, Singapore
cGMP Mfg Labs Div.**

CAMPO RESEARCH Pte Ltd
TECHNICAL SPECIFICATION

PRODUCT Name (Campo Research) Other Trade Names (Campo Research)	CAMPO HYDRINS 1 TRUE HUMAN SKIN IDENTICAL TRANSEPIDERMAL WATER BALANCE FACTORS
CTFA TRADE NAME	Polypeptide
Existing CTFA/INCI Name	Tricholoma Matsutake Extract Hydrolyzed Collagen Water
Chinese Translation	松口蘑 (TRICHOLOMA MATSUTAKE) 提取物 水解胶原 (HYDROLYZED COLLAGEN) 水 (WATER /AQUA)
CAMPO PRODUCT # HS Code:	96.062/A 1302.19.0000
CTFA Monograph ID:	18255 – Tricholoma Matsutake Extract 1246 – Hydrolyzed Collagen 9423 – Water/Aqua
CAS# CAS# EU	N/A – Tricholoma Matsutake Extract N/A (EU) – Tricholoma Matsutake Extract 73049-73-7 / 92113-31-0 – Hydrolyzed Collagen 92113-31-0 / 73049-73-7 (EU) – Hydrolyzed Collagen 7732-18-5 – Water (Aqua)
EINECS Number and Name EINECS# EU	N/A – Tricholoma Matsutake Extract N/A (EU) – Tricholoma Matsutake Extract N/A – Hydrolyzed Collagen 295-635-5 (EU) – Hydrolyzed Collagen 231-791-2 – Aqua (Water)
EINECS Number and Name EINECS# EU European Commission–Health & Consumer Cosmetics–Cosing	Tricholoma Matsutake Extract http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=59810 Tricholoma Matsutake Extract – N/A (EU) Hydrolyzed Collagen http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=76560 Hydrolyzed Collagen – 295-635-5 (EU) Aqua (Water) http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=31959 Aqua – 231-791-2 (EU)
BATCH/LOT #	See COA Batch Lot
SPECIES	Tricholoma matsutake singer Syn: Tricholoma Matsutake Extract
PARTS USED	Whole mushroom
RAW MATERIAL - ORIGIN	JAPAN
CONCENTRATION	-
COMMENTS	A Quality Management System, compliant to the International Standard ISO 9001, was used to manufacture and test this material. *Please take note that all specifications are liable to changes

without prior notice.

Specification Parameter Analysis	Specification Range	Results	Methods
Physical Form	Liquid	Conforms	Visual
Colour	Turbid cloudy transparent to clear colorless	Conforms	Visual
Odour	Faint characteristics	Conforms	Olfactory
Specific Gravity(20deg.C)	1.010 - 1.300	See COA	USP XXIX/Paar,DMA35
Refractive Index(20deg.C)	1.200 - 1.450	See COA	USP XXIX/DGF IV C (52)
pH(20°C) (100% Concentrate)	5.00 - 7.80	See COA	USP XXIX/DGF H III (92)
Carrier Menstrual (Vehicle)			
Water	40.0 - 47.0%	See COA	-
Propylene Glycol	N/A	See COA	
Dry Weight	55.0 - 70.5%	See COA	
Saponification Value	-	-	-
Viscosity	-	-	-
Water Solubility	-	Conforms	-
Dry Residue (160deg.C/ 2hrs)	53 - 60%	See COA	Mettler 16J
Preservation	None	Conforms	-
Pesticide Content	None	Conforms	Pflanzaniaschuttal 1989
Total Germs	<100 Cfu/ml - Non-Pathogenic	Conforms	USP XXIX/Ph.Eur.2.6.12(97)
Total Yeast/Mold	< 100 cfu/ ml	Conforms	USP XXIX/Ph.Eur.2.6.12(97)
Heavy Metals(Total)As,Pb,Hg	< 0.005 ppm	Conforms	USP XXIX/Ph.Eur.2.6.12(97)

CAMPO RESEARCH Pte. Ltd, SINGAPORE
 CAMPO RESEARCH USA, INC SAN DEIGO CA 92111, & Manhattan, New York City, USA
 CAMPO RESEARCH s.r.o., Brno, Czech Republic
 CAMPO RESEARCH Pvt. Ltd, CHENNAI , INDIA
 CAMPO RESEARCH CANADA LTD, TORONTO, CANADA

MATERIAL SAFETY & CONSUMER SAFETY TESTING LABS.
 DIV. OF JTC KAMPOYAKI SINGAPORE
EMERGENCY MATERIAL SAFETY / ACCIDENTAL RELEASE CENTER Contact:
Emergency Tel.no: +(65)-63833202/63833631(24hours) /63228551/63228503
Emergency Fax No: +(65)-63833632(24hours),63824680, 63228558
EMAIL: msds911@campo-research.com

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“(SAFETY DATA SHEET – compliant to GHS)”
CONFIRMS TO EC DIRECTIVE 91/155/EEC, EC REGULATION NO#1272/2008, AMENDED EC REGULATION NO#790/2009 and Complies to The EU Cosmetic Products Regulation (Regulation (EC) No 1223/2009) effective on July 2013., and to EU Commission Regulation No.358/2014/9 of 9th April 2014 amending Annexes II and V, to EU Regulation No No.1223/2009 of The European Parliament and of The Council on Cosmetic products, (Effective Date 31st October 2014) AND to US DEPT.OF LABOR-Occupational Safety & Health Admin directives and compliant to Globally Harmonized System of Classification and Labeling of Chemicals (hereinafter referred to as “the GHS”)., and Complies and Confirms to the Requirements of State of California Proposition 65.

A Quality Management System, compliant to the International Standard ISO 9001, was used to manufacture and test this material.

<http://www.osha.gov/dsg/hazcom/ghs.html>

http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html

<http://www.hc-sc.gc.ca/ahc-asc/intactiv/ghs-sgh/index-eng.php>

DATE OF FIRST ISSUE	February 10th 1992-Reviewer - Dr Balasubramaniam PhD
DATE OF LATEST REVISION	Jan. 19th 1997- Rev`wer- Dr Fergus Jes .G.Velasquez Bsc. Med Tech, MD Mr Jimmy Kee, 30th June 2003 Mr Teo SH 5th Jan 2004 Balasubramaniam M,PhD 21st August 2007 Mr Joshua Teo, 21 Jan 2011 February 5th 2013 – Reviewer – Dr Balasubramaniam M, PhD 23rd March 2014 - Joshua Teo, Balasubramaniam M PhD & Oksana Nemchenko MD 12th February 2015 - Joshua Teo BSc. Chem, Balasubramaniam M PhD & Oksana Nemchenko MD 15th May 2016 - Joshua Teo BSc. Chem, Balasubramaniam M PhD & Oksana Nemchenko MD
1 PRODUCT AND COMPANY IDENTIFICATION	
COMMERCIAL NAME:	CAMPO HYDRNS 1
OTHER TRADE NAME:	<i>TRUE HUMAN SKIN IDENTICAL TRANSEPIDERMAL WATER BALANCE FACTORS</i>
LATIN NAME:	Tricholoma Matsutake Singer
CTFA ADOPTED NAME / INCI NAME:	Tricholoma Matsutake Extract Hydrolyzed Collagen
Chinese Translation	松口磨 (TRICHOLOMA MATSUTAKE) 提取物 水解胶原 (HYDROLYZED COLLAGEN) 水 (WATER /AQUA)
INTERNATIONAL CHEMICAL IDENTIFICATION <i>(EC REGULATION NO#1272/2008 AMENDED NO#790/2009)and Compliant to the GHS:</i>	TRICHOLOMA MATSUTAKE EXTRACT HYDROLYZED COLLAGEN WATER (AQUA)
EPA (USA) GENERIC NAME:	Mushroom Extract

<p>MANUFACTURER : (cGMP MFG. FACILITIES) :</p>	<p>CAMPO RESEARCH PTE LTD #05-02, HUDSON INDUSTRIAL BUILDING No, 14, NEW INDUSTRIAL ROAD, SINGAPORE 536203.</p>
<p>EMERGENCY TELEPHONE NUMBERS:</p>	<p>(65)-63833631/(65)-63228503 (Singapore)</p>
<p>2 HAZARDS IDENTIFICATION</p>	
<p>NOT CLASSIFIED AS DANGEROUS ACCORDING TO DIRECTIVE 67/548/EEC OR ITS AMENDMENTS.</p>	<p>DIVISION 1.6; NON-HAZARDOUS NO HAZARD STATEMENT</p>
<p>HAZARD CLASS and CATEGORY CODE(s)</p>	<p>PICTOGRAM : NONE</p>
<p>HAZARD STATEMENT CODE(s) <i>(EC REGULATION NO#1272/2008</i> <i>AMENDED NO#790/2009) and compliant to</i> the GHS</p>	<p>No GHS Pictogram (Totally Non-Hazardous) Division 1.6; NO HAZARD STATEMENT</p>
<p>GHS CLASSIFICATION : This material is Non-hazardous according To UN-GHS Criteria.</p>	<p>PICTOGRAM : NONE No GHS Pictogram (Totally Non-Hazardous) Division 1.6: No Hazard Statement.</p>
<p>GHS LABEL ELEMENTS:</p>	<p>No GHS Pictogram (Totally Non-Hazardous) Division 1.6: No Hazard Statement.</p>
<p>3 COMPOSITION / INFORMATION ON INGREDIENTS</p>	
<p>POLYPETIDE-AMINO ACID RESIDUES WITH NATURAL SKIN-IDENTICAL HYDROXYCERAMIDES SOLUBLISIED IN PURIFIED WATER</p>	<p>Amino acids; polypeptides; water</p>
<p>CTFA Monograph ID</p>	<p>18255 – Tricholoma Matsutake Extract 1246 – Hydrolyzed Collagen 9423 – Water/Aqua</p>
<p>CAS# CAS# EU</p>	<p>N/A – Tricholoma Matsutake Extract N/A (EU) – Tricholoma Matsutake Extract 73049-73-7 / 92113-31-0 – Hydrolyzed Collagen 92113-31-0 / 73049-73-7 (EU) – Hydrolyzed Collagen 7732-18-5 – Water (Aqua)</p>
<p>CAS NO# (CAS Name) <i>(EC REGULATION NO#1272/2008</i> <i>AMENDED NO#790/2009)and compliant</i> to the GHS</p>	<p>92113-31-0 / 73049-73-7 – Hydrolyzed Collagen 7732-18-5 – Water (Aqua)</p>
<p>EINECS Name and Number EINECS# EU</p>	<p>N/A – Tricholoma Matsutake Extract N/A (EU) – Tricholoma Matsutake Extract N/A – Hydrolyzed Collagen 295-635-5 (EU) – Hydrolyzed Collagen 231-791-2 – Aqua (Water)</p>
<p>EINECS# (EINECS Name) <i>(EC REGULATION NO#1272/2008</i> <i>AMENDED NO#790/2009) and compliant</i> to the GHS</p>	<p>295-635-5 – Hydrolyzed Collagen 231-791-2 – Water (Aqua)</p>
<p>EINECS Name and Number EINECS# EU European Commission–Health & Consumer Cosmetics–Cosing</p>	<p>Tricholoma Matsutake Extract http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=59810 Tricholoma Matsutake Extract – N/A (EU)</p>
	<p>Hydrolyzed Collagen</p>

	<p>http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=76560 Hydrolyzed Collagen – 295-635-5 (EU)</p> <p>Aqua (Water) http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=31959 Aqua – 231-791-2 (EU)</p>
RISK PHRASES	None
SAFETY PHRASES 25-26	Not Mandatory
<u>GHS CLASSIFICATION :</u> This material is Non-hazardous according To UN-GHS Criteria.	PICTOGRAM : NONE
<u>GHS LABEL ELEMENTS:</u>	No GHS Pictogram (Totally Non-Hazardous) Division 1.6: No Hazard Statement.
4 FIRST AID MEASURES	
EYE CONTACT:	Wash with water or standard eye wash solution. Seek medical advice, if irritation occur and persist.
ORAL INGESTATION:	Edible in small quantity (3-5 grams) with bland to bitter sweet after taste.
SKIN CONTACT:	Wash with water or shower.
5 FIRE FIGHTING MEASURES	
NON-COMBUSTIBLE BUT PRESENTS NO SPECIAL FIRE HAZARD.	
EXTINGUISHING MEDIA:	Treat as oil fire when store in HDPE drums with CO2, dry foam or dry chemical.
PROTECTIVE EQUIPMENTS FOR FIGHTERS:	Standard Equipments.
6 ACCIDENTAL RELEASE MEASURES	
ABSORB ONTO AN INERT MATERIAL AND SCRAPE UP. REMOVE RESIDUE BY SCRUBBING WITH HOT WATER OR DETERGENT SOLUTION.	
7 HANDLING AND STORAGE	
STORE IN SEALED CONTAINERS UNDER NORMAL COOL, DRY WAREHOUSING CONDITIONS.	
8 EXPOSURE AND PERSONAL PROTECTION	
IN ACCORDANCE WITH GOOD INDUSTRIAL PRACTICE AND HANDLING USING STANDARD EYE PROTECTION.	
9 PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL FORM:	Liquid
COLOUR:	Turbid cloudy transparent to clear colorless
ODOUR:	Characteristic - faint
BOILING POINT:	100 - 105 deg. cent
MELTING POINT:	-
VISCOSITY:	-
FLASH POINT:	> 160°CAMPO deg. cent
FLAMMABILITY SOLID/GAS:	N/A
AUTO FLAMMABILITY:	N/A
SPECIFIC REFRACTIVE:	1.200 - 1.450
EXPLOSIVE PROPERTIES:	N/A
pH: (100% Concentrate)	5.00 - 7.80
OXIDIZING PROPERTIES:	N/A
VAPOUR PRESSURE:	N/A
DENSITY:	1.010 - 1.300
WATER SOLUBILITY:	Soluble
OTHER SOLUBILITY:	In Most Cosmetic Solvents
BULK DENSITY:	-

	PARTITION COEFFICIENT: (OCTANOL/WATER)	- -
	EXPLOSIVE LIMITS:	
10	STABILITY AND REACTIVITY	
	THERMAL DECOMPOSITION:	Stable under normal conditions of use.
11	TOXICOLOGICAL DATA	Animal Tests Last Done 1992, as requirements of the then EC DIRECTIVE 91/155/EEC
	ORAL:	LD50 > 3,679 MG/KG (Body Wt.) Rat Essentially Non-Toxic and Edible in Small Quantity.
	DERMAL:	Expected To Be Essentially Non Toxic.
	INHALATION:	N/A
	SPECIFIC CONCENTRATION LIMITS M-FACTORS (EC REGULATION NO#1272/2008 AMENDED NO#790/2009) compliant to the GHS.	3,679 MG/KG (Body Wt.); CATEGORY 5 Essentially Non-Toxic and Edible in Small Quantity.
	TOXIC EFFECTS:	
	SKIN:	Primarily Irritation Index (PII) = 0.0 (Non- Irritating - Skintex), Not A Primarily Irritant. Non-irritant / Non-sensitizer as per Repeated Patch Insult Test on 50 Human volunteers. Human Repeated Patch Test 48 hours: 50/50 completely non-irritating / non-erythema causing ingredient at 10% concentrate in water on 50 human volunteers
	EYE:	Very Mild/Minimal - Not A Transient Conjunctival Irritant at 10% concentrate in water (Eyetex - Eyetex classification). <i>Summarized toxicological data as shown here are formation bounded under Non-Disclosure Agreement with various clients as when these Toxicological Data were established or their exclusive uses.</i>
12	ECOLOGICAL INFORMATION	
	BIODEGRATION:	Expected to be ultimately Biodegradable
	FISH TOXICITY:	No Data
	BACTERIAL & VIRAL TOXICITY:	Potentially very harmful to bacterial & viral microorganisms.
	WGK CLASS:	WGK (Self Classification)
13	DISPOSAL CONDITIONS	
	DISPOSE OFF ACCORDING TO A RECOGNISED METHOD OF CHEMICAL WASTE DISPOSAL.	
14	TRANSPORT INFORMATION	
	UN NUMBER# :	N/A
	UN NAME:	Not Assigned
	IMDG CODE/CLASS:	Not Hazardous
	IMDG CODE PAGE NO.	N/A
	ICAO/IATA AIR CLASS:	Non-Hazardous
	ICAO/IATA AIR CLASS PACKING GROUP:	N/A
	RID/ADR CLASS:	Non-Hazardous
	ADNR CLASS:	Non-Hazardous
	LABELLING: (EC REGULATION NO#1272/2008 AMENDED NO#790/2009) and compliant to the GHS.	
	PICTOGRAM SIGNAL WORD CODE(s):	No GHS Pictograms (Totally Non-Hazardous)
	HAZARD STATEMENT CODE(s):	Division 1.6; No Hazard Statement
	SUPPLEMENTARY HAZARD STATEMENT CODE(s):	Similar Division 1.6; No Hazard Statement

15	REGULATORY INFORMATION	
	OCCUPATIONAL EXPOSURE LIMITS:	N/A
	U.S. State of California Proposition 65 INGREDIENTS Presence	None (Exempted from CA Prop 65 Register)
	EU Commission Regulation No.358/2014/9 of 9th April 2014 amending Annexes II and V, to EU Regulation No No.1223/2009 of The European Parliament and of The Council on Cosmetic products	“Contains No Parabens and nor contains any Branched Chain Parabens” .(EU Regulation No.358/2014/9 of 9 th April 2014)
16	OTHER INFORMATION	
	USES AS A COSMETIC ADDITIVE	> 0.4 - 1.0 %
	This format and information is compiled by Kampoyaki Novel Natural Product Chemistry/ Novel Drug Discovery cGMP Labs Kobe, Japan; for Campo Research, Kyoto and Singapore.	*Please take note that all specifications are liable to changes without prior notice.

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CAMPO RESEARCH Pte Ltd
TECHNICAL SPECIFICATION

PRODUCT Name (Campo Research) Other Trade Names (Campo Research)	CAMPO HYDRINS 2 TRUE HUMAN SKIN IDENTICAL TRANSEPIDERMAL WATER BALANCE FACTORS		
CTFA TRADE NAME Existing CTFA/INCI Name	Tricholoma Matsutake Extract Hydrolyzed Collagen Water (Aqua)		
Chinese Translation	松口蘑 (TRICHOLOMA MATSUTAKE) 提取物 水解胶原 (HYDROLYZED COLLAGEN) 水 (WATER /AQUA)		
CAMPO PRODUCT # HS Code: CTFA Monograph ID:	96.062/B 1302.19.0000 18255 – Tricholoma Matsutake Extract 1246 – Hydrolyzed Collagen 9423 – Water/Aqua		
CAS# CAS# EU	N/A – Tricholoma Matsutake Extract N/A (EU) – Tricholoma Matsutake Extract 73049-73-7 / 92113-31-0 – Hydrolyzed Collagen 92113-31-0 / 73049-73-7 (EU) – Hydrolyzed Collagen 7732-18-5 – Water (Aqua)		
EINECS Number and Name EINECS# EU	N/A – Tricholoma Matsutake Extract N/A (EU) – Tricholoma Matsutake Extract N/A – Hydrolyzed Collagen 295-635-5 (EU) – Hydrolyzed Collagen 231-791-2 – Aqua (Water)		
EINECS Number and Name EINECS# EU European Commission–Health & Consumer Cosmetics–Cosing	Tricholoma Matsutake Extract http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=59810 Tricholoma Matsutake Extract – N/A (EU) Hydrolyzed Collagen http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=76560 Hydrolyzed Collagen – 295-635-5 (EU) Aqua (Water) http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=31959 Aqua – 231-791-2 (EU)		
BATCH/LOT #	See COA Batch Lot		
SPECIES	Tricholoma matsutake singer Syn: Tricholoma matsutake singer		
PARTS USED	Mycelium - Whole mushroom		
RAW MATERIAL - ORIGIN	JAPAN		
CONCENTRATION	-		
COMMENTS	A Quality Management System, compliant to the International Standard ISO 9001, was used to manufacture and test this material. *Please take note that all specifications are liable to changes without prior notice.		

<u>Specification Parameter Analysis</u>	<u>Specification Range</u>	<u>Results</u>	<u>Methods</u>
Physical Form	Liquid	Conforms	Visual
Colour	Turbid cloudy transparent to clear colorless	Conforms	Visual

Odour	Faint characteristics	Conforms	Olfactory
Specific Gravity(20deg.C)	1.000 - 1.200	See COA	USP XXIX/Paar,DMA35
Refractive Index(20deg.C)	1.200 - 1.450	See COA	USP XXIX/DGF IV C (52)
pH(20°C) (100% Concentrate)	4.50 – 6.50	See COA	USP XXIX/DGF H III (92)
Carrier Menstrual (Vehicle)			
Water	40.0 - 47.0%	See COA	-
Propylene Glycol	N/A	See COA	
Dry Weight	55.0 - 70.5%	See COA	
Saponification Value	-	-	-
Viscosity	-	-	-
Water Solubility	-	Conforms	-
Dry Residue (160deg.C/ 2hrs)	53 - 60%	See COA	Mettler 16J
Preservation	None	Conforms	-
Pesticide Content	None	Conforms	Pflanzaniaschuttal 1989
Total Germs	<100 Cfu/ml - Non-Pathogenic	Conforms	USP XXIX/Ph.Eur.2.6.12(97)
Total Yeast/Mold	< 100 cfu/ ml	Conforms	USP XXIX/Ph.Eur.2.6.12(97)
Heavy Metals(Total)As,Pb,Hg	< 0.005 ppm	Conforms	USP XXIX/Ph.Eur2.6.12(97)

CAMPO RESEARCH Pte. Ltd, SINGAPORE
 CAMPO RESEARCH USA, INC SAN DEIGO CA 92111, & Manhattan, New York City, USA
 CAMPO RESEARCH s.r.o., Brno, Czech Republic
 CAMPO RESEARCH Pvt. Ltd, CHENNAI , INDIA

MATERIAL SAFETY & CONSUMER SAFETY TESTING LABS.
 DIV. OF JTC KAMPOYAKI SINGAPORE
EMERGENCY MATERIAL SAFETY / ACCIDENTAL RELEASE CENTER Contact:
 Emergency Tel.no: +(65)-63833202/63833631(24hours) 6/3228551/63228503
 Emergency Fax No: +(65)-63833631(24hours), 63824680, 63228558
 EMERGENCY EMAIL: msds911@campo-research.com

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“(SAFETY DATA SHEET – compliant to GHS)”
CONFIRMS TO EC DIRECTIVE 91/155/EEC, EC REGULATION NO#1272/2008, AMENDED EC REGULATION NO#790/2009 and Complies to The EU Cosmetic Products Regulation (Regulation (EC) No 1223/2009) effective on July 2013., and to EU Commission Regulation No.358/2014/9 of 9th April 2014 amending Annexes II and V, to EU Regulation No No.1223/2009 of The European Parliament and of The Council on Cosmetic products, (Effective Date 31st October 2014) AND to US DEPT.OF LABOR-Occupational Safety & Health Admin directives and compliant to Globally Harmonized System of Classification and Labeling of Chemicals (hereinafter referred to as “the GHS”)., and Complies and Confirms to the Requirements of State of California Proposition 65.

A Quality Management System, compliant to the International Standard ISO 9001, was used to manufacture and test this material.

<http://www.osha.gov/dsg/hazcom/ghs.html>

http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html

<http://www.hc-sc.gc.ca/ahc-asc/intactiv/ghs-sgh/index-eng.php>

DATE OF FIRST ISSUE	February 10th 1992-Reviewer - Dr Balasubramaniam PhD
DATE OF LATEST REVISION	Jan. 19th 1997- Rev'wer- Dr Fergus Jes .G.Velasquez Bsc. Med Tech, MD Mr Jimmy Kee, 30th June 2003 Mr Teo SH 5th Jan 2004 Balasubramaniam M,PhD 21st August 2007 Mr Joshua Teo, 21 Jan 2011 February 5th 2013 – Reviewer – Dr Balasubramaniam M, PhD 23rd March 2014 - Joshua Teo, Balasubramaniam M PhD & Oksana Nemchenko MD 12th February 2015 - Joshua Teo BSc. Chem, Balasubramaniam M PhD & Oksana Nemchenko MD 15th May 2016 - Joshua Teo BSc. Chem, Balasubramaniam M PhD & Oksana Nemchenko MD
1 PRODUCT AND COMPANY IDENTIFICATION	
COMMERCIAL NAME:	CAMPO HYDRNS 2
OTHER TRADE NAME:	TRUE HUMAN SKIN IDENTICAL TRANSEPIDERMAL WATER BALANCE FACTORS
LATIN NAME:	Tricholoma Matsutake Singer
CTFA ADOPTED NAME / INCI NAME:	Tricholoma Matsutake Extract Hydrolyzed Collagen Water (Aqua)
Chinese Translation	松口磨 (TRICHOLOMA MATSUTAKE) 提取物 水解胶原 (HYDROLYZED COLLAGEN) 水 (WATER /AQUA)
INTERNATIONAL CHEMICAL IDENTIFICATION (EC REGULATION NO#1272/2008 AMENDED NO#790/2009)and Compliant to the GHS:	TRICHOLOMA MATSUTAKE EXTRACT HYDROLYZED COLLAGEN WATER (AQUA)
EPA (USA) GENERIC NAME:	Mushroom Extract
MANUFACTURER :	CAMPO RESEARCH PTE LTD

(cGMP MFG. FACILITIES) :	#05-02, HUDSON INDUSTRIAL BUILDING No, 14, NEW INDUSTRIAL ROAD, SINGAPORE 536203.
EMERGENCY TELEPHONE NUMBERS:	(65)-63833631/(65)-63228503 (Singapore)
2 HAZARDS IDENTIFICATION	
NOT CLASSIFIED AS DANGEROUS ACCORDING TO DIRECTIVE 67/548/EEC OR ITS AMENDMENTS.	DIVISION 1.6; NON-HAZARDOUS NO HAZARD STATEMENT
HAZARD CLASS and CATEGORY CODE(s)	PICTOGRAM : NONE
HAZARD STATEMENT CODE(s) <i>(EC REGULATION NO#1272/2008 AMENDED NO#790/2009) and compliant to the GHS</i>	No GHS Pictogram (Totally Non-Hazardous) Division 1.6; NO HAZARD STATEMENT
<u>GHS CLASSIFICATION :</u> This material is Non-hazardous according To UN-GHS Criteria.	PICTOGRAM : NONE No GHS Pictogram (Totally Non-Hazardous) Division 1.6: No Hazard Statement.
<u>GHS LABEL ELEMENTS:</u>	No GHS Pictogram (Totally Non-Hazardous) Division 1.6: No Hazard Statement.
3 COMPOSITION / INFORMATION ON INGREDIENTS	
POLYPEPTIDE-AMINO ACID RESIDUES WITH NATURAL SKIN-IDENTICAL HYDROXYCERAMIDES SOLUBLISIED IN PURIFIED WATER	Amino acids; polypeptides; water
CTFA Monograph ID	18255 – Tricholoma Matsutake Extract 1246 – Hydrolyzed Collagen 9423 – Water/Aqua
CAS# CAS# EU	N/A – Tricholoma Matsutake Extract N/A (EU) – Tricholoma Matsutake Extract 73049-73-7 / 92113-31-0 – Hydrolyzed Collagen 92113-31-0 / 73049-73-7 (EU) – Hydrolyzed Collagen 7732-18-5 – Water (Aqua)
CAS NO# (CAS Name) <i>(EC REGULATION NO#1272/2008 AMENDED NO#790/2009)and compliant to the GHS</i>	92113-31-0 / 73049-73-7 – Hydrolyzed Collagen 7732-18-5 – Water (Aqua)
EINECS Name and Number EINECS# EU	N/A – Tricholoma Matsutake Extract N/A (EU) – Tricholoma Matsutake Extract N/A – Hydrolyzed Collagen 295-635-5 (EU) – Hydrolyzed Collagen 231-791-2 – Aqua (Water)
EINECS# (EINECS Name) <i>(EC REGULATION NO#1272/2008 AMENDED NO#790/2009) and compliant to the GHS</i>	295-635-5 – Hydrolyzed Collagen 231-791-2 – Water (Aqua)
EINECS Name and Number EINECS# EU European Commission–Health & Consumer Cosmetics– Cosing	Tricholoma Matsutake Extract http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=59810 Tricholoma Matsutake Extract – N/A (EU)
	Hydrolyzed Collagen http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=76560 Hydrolyzed Collagen – 295-635-5 (EU)

	Aqua (Water) http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&id=31959 Aqua – 231-791-2 (EU)
RISK PHRASES SAFETY PHRASES 25-26	None Not Mandatory
<u>GHS CLASSIFICATION :</u> This material is Non-hazardous according To UN-GHS Criteria.	PICTOGRAM : NONE
<u>GHS LABEL ELEMENTS:</u>	No GHS Pictogram (Totally Non-Hazardous) Division 1.6: No Hazard Statement.
4 FIRST AID MEASURES	
EYE CONTACT:	Wash with water or standard eye wash solution. Seek medical advice, if irritation occur and persist.
ORAL INGESTATION:	Edible in small quantity (3-5 grams) with bland to bitter sweet after taste.
SKIN CONTACT:	Wash with water or shower.
5 FIRE FIGHTING MEASURES	
NON-COMBUSTIBLE BUT PRESENTS NO SPECIAL FIRE HAZARD.	
EXTINGUISHING MEDIA:	Treat as oil fire when store in HDPE drums with CO ₂ , dry foam or dry chemical.
PROTECTIVE EQUIPMENTS FOR FIGHTERS:	Standard Equipments.
6 ACCIDENTAL RELEASE MEASURES	
ABSORB ONTO AN INERT MATERIAL AND SCRAPE UP. REMOVE RESIDUE BY SCRUBBING WITH HOT WATER OR DETERGENT SOLUTION.	
7 HANDLING AND STORAGE	
STORE IN SEALED CONTAINERS UNDER NORMAL COOL, DRY WAREHOUSING CONDITIONS.	
8 EXPOSURE AND PERSONAL PROTECTION	
IN ACCORDANCE WITH GOOD INDUSTRIAL PRACTICE AND HANDLING USING STANDARD EYE PROTECTION.	
9 PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL FORM:	Liquid
COLOUR:	Clear colorless
ODOUR:	Characteristic - faint
BOILING POINT:	100 - 105 deg. cent
MELTING POINT:	-
VISCOSITY:	-
FLASH POINT:	> 160°CAMPO deg. cent
FLAMMABILITY SOLID/GAS:	N/A
AUTO FLAMMABILITY:	N/A
SPECIFIC REFRACTIVE:	1.200 - 1.450
EXPLOSIVE PROPERTIES:	N/A
pH: (100% Concentrate)	4.50 – 6.50
OXIDIZING PROPERTIES:	N/A
VAPOUR PRESSURE:	N/A
DENSITY:	1.000 - 1.200
WATER SOLUBILITY:	Soluble
OTHER SOLUBILITY:	In Most Cosmetic Solvents
BULK DENSITY:	-
PARTITION COEFFICIENT: (OCTANOL/WATER)	-
EXPLOSIVE LIMITS:	-
10 STABILITY AND REACTIVITY	
THERMAL DECOMPOSITION:	Stable under normal conditions of use.

11	TOXICOLOGICAL DATA	Animal Tests Last Done 1992, as requirements of the then EC DIRECTIVE 91/155/EEC
	ORAL:	LD50 > 3,679 MG/KG (Body Wt.) Rat Essentially Non-Toxic and Edible in Small Quantity.
	DERMAL:	Expected To Be Essentially Non Toxic.
	INHALATION:	N/A
	SPECIFIC CONCENTRATION LIMITS	3,679 MG/KG (Body Wt.); CATEGORY 5
	M-FACTORS	Essentially Non-Toxic and Edible in Small Quantity.
	<i>(EC REGULATION NO#1272/2008</i>	
	<i>AMENDED NO#790/2009) compliant to</i>	
	the GHS.	
	TOXIC EFFECTS:	Primarily Irritation Index (PII) = 0.0 (Non- Irritating - Skintex), Not A Primarily Irritant.
	SKIN:	Non-irritant / Non-sensitizer as per Repeated Patch Insult Test on 50 Human volunteers.
		Human Repeated Patch Test 48 hours: 50/50 completely non-irritating / non-erythema causing ingredient at 10% concentrate in water on 50 human volunteers
	EYE:	Very Mild/Minimal - Not A Transient Conjunctival Irritant at 10% concentrate in water (Eyetex - Eyetex classification).
		<i>Summarized toxicological data as shown here are formation bounded under Non-Disclosure Agreement with various clients as when these Toxicological Data were established or their exclusive uses.</i>
12	ECOLOGICAL INFORMATION	
	BIODEGRATION:	Expected to be ultimately Biodegradable
	FISH TOXICITY:	No Data
	BACTERIAL & VIRAL TOXICITY:	Potentially very harmful to bacterial & viral microorganisms.
	WGK CLASS:	WGK (Self Classification)
13	DISPOSAL CONDITIONS	
	DISPOSE OFF ACCORDING TO A RECOGNISED METHOD OF CHEMICAL WASTE DISPOSAL.	
14	TRANSPORT INFORMATION	
	UN NUMBER# :	N/A
	UN NAME:	Not Assigned
	IMDG CODE/CLASS:	Not Hazardous
	IMDG CODE PAGE NO.	N/A
	ICAO/IATA AIR CLASS:	Non-Hazardous
	ICAO/IATA AIR CLASS PACKING GROUP:	N/A
	RID/ADR CLASS:	Non-Hazardous
	ADNR CLASS:	Non-Hazardous
	LABELLING:	
	<i>(EC REGULATION NO#1272/2008</i>	
	<i>AMENDED NO#790/2009) and compliant to</i>	
	<i>the GHS.</i>	
	PICTOGRAM SIGNAL WORD CODE(s):	No GHS Pictograms (Totally Non-Hazardous)
	HAZARD STATEMENT CODE(s):	Division 1.6; No Hazard Statement
	SUPPLEMENTARY HAZARD STATEMENT CODE(s):	Similar Division 1.6; No Hazard Statement
15	REGULATORY INFORMATION	
	OCCUPATIONAL EXPOSURE LIMITS:	N/A
	U.S. State of California Proposition 65 INGREDIENTS Presence	None (Exempted from CA Prop 65 Register)
	EU Commission Regulation No.358/2014/9 of 9th April 2014 amending Annexes II and V, to EU Regulation	“Contains No Parabens and nor contains any Branched Chain Parabens”. (EU Regulation No.358/2014/9 of 9 th April 2014)

**No No.1223/2009 of The European Parliament and of
The Council on Cosmetic products**

16 OTHER INFORMATION

USES AS A COSMETIC ADDITIVE > 0.4 - 1.0 %

This format and information is compiled by Kampoyaki Novel
Natural Product Chemistry/ Novel Drug Discovery cGMP Labs
Kobe, Japan;
for Campo Research, Kyoto and Singapore.

***Please take note that all specifications are liable to
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