

Quick scan of Orchidaceae species in European commerce as components of cosmetic, food and medicinal products

Prepared by Josef A. Brinckmann
Sebastopol, California, 95472 USA

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Abbreviations and Acronyms

API	Ayurvedic Pharmacopoeia of India
BTI	Binding Tariff Information (BTI) rulings of the European Commission Taxation and Customs Union
CAS #	Chemical Abstracts Service Registry Number
CCC	Standard Classification of Commodities of the Republic of China (Taiwan)
CCCCS	Commodity Classification for China Customs Statistics (PRC)
CN	Combined Nomenclature of the European Union
CosIng	Cosmetic Ingredients & Substances Database (European Commission)
CROSS	Customs Rulings Online Search System
EBTI	European Binding Tariff Information
EC #	European Inventory of Existing Commercial chemical Substances Number
ELINCS #	European List of Notified Chemical Substances Number
HS Code	Harmonized System Tariff Code
INCI Name	International Nomenclature of Cosmetic Ingredients Name
INS #	International Numbering System (INS) for Food Additives Number
ITC	International Trade Centre (United Nations)
ITC	Indian Trade Classification
JP	Japanese Pharmacopoeia
JTS	Japanese Tariff Schedule
KHP	Korean Herbal Pharmacopoeia
KP	Korean Pharmacopoeia
MAPROW	Medicinal and Aromatic Plant Resources of the World
NHPID	Natural Health Products Ingredients Database (Health Canada)
PhEur	European Pharmacopoeia
PPRC	Pharmacopoeia of the People's Republic of China
PRC	People's Republic of China
TSK	Tariff Schedule of Korea (South Korea)
UNII Code	Unique Ingredient Identifier Code Number
USP	United States Pharmacopoeia
WCO	World Customs Organization

Executive Summary

PURPOSE OF THIS WORK

The purpose of this quick-scan study was to investigate and determine which products of the Orchidaceae family are likely to be found in European commerce, whether in the form of botanical raw materials, processed forms such as extracts and oils or finished products packaged for retail sale.

METHODOLOGY

In the desk research to prepare this report a number of useful databases were utilized, including tariff classification and customs rulings databases, natural ingredient databases and finished product databases (of governmental and non-governmental organizations). Descriptions of the online databases used are provided in this report along with website addresses for each.

Additionally, the researcher's own library of national and international pharmacopoeias, formularies and other compendia were referenced as an indicator of a botanical's usage in any particular system of medicine (e.g. Indian Ayurvedic Medicine or Traditional Chinese Medicine) whereby commercial products of that system may enter European commerce. Finally, searches were made into the websites of European companies that market ingredients or finished products containing botanicals of the Orchidaceae family. Photographic images of these products were copied from company websites or from other online marketers of the products and pasted into this report for visual reference.

REPORT CONTENTS

This report provides the English language standardized common names, Latin botanical names, regional names from countries of origin and detailed descriptions of the commercially traded forms of Orchidaceae plant parts that were identified as possibly present in European commerce in some form. Furthermore, where applicable, in particular for extract or oil ingredients, additional identifying codes or numbers were included, where available, such as the Harmonized System (HS) Tariff Code, Chemical Abstracts Service (CAS) Registry Number, European Community (EC) Number or European Inventory of Existing Commercial Chemical Substances (EINECS) Number, International Nomenclature of Cosmetic Ingredients (INCI) Name and/or International Nonproprietary Name (INN).

Each entry provides details on the native origin of the species and where it is known to occur as well as information on the countries that are processing and exporting the plant in some form or products that contain the plant. Where it could be determined, information on whether the material of commerce is obtained from artificial propagation, field cultivation or wild collection is included. Finally, examples of selected finished products available in European commerce are provided along with images of the packaged product and information about the product ingredients and contact details for the European marketer(s) of the product.

RESULTS

Thirty-nine (39) species of the Orchidaceae family were identified as possibly being present in European commerce in one form or another.

The following table provides a concise summary of the results in terms of the plant parts used (e.g. root, leaf, whole plant), systems of medicine used in (e.g. Traditional Ayurvedic, Chinese, Korean), source material (e.g. artificial propagation, cultivation, wild collection), and types of finished products that the ingredient is used in (e.g. cosmetic, food, food supplement, or medicinal).

LIMITATIONS

Due to the relatively short time frame for this research project it was not feasible to contact companies directly to inquire about the actual sources of their raw materials whether from wild collection or cultivation. Effort was made however to locate published data on cultivation trials for each species in order to determine whether any of the commercial supply might originate from cultivated sources.

No.	Botanical name	Part(s) used	System(s) of Medicine	Source(s)	Type(s) of products
1	<i>Anoectochilus formosanus</i>	Whole plant	None known	Micropropagation	Cosmetic
2	<i>Bletia hyacinthina</i>	Pseudobulb	None known	Wild collected and cultivated	Cosmetic
3	<i>Bletilla striata</i>	Rhizome (tuber); Root; Stalk	Traditional Chinese Traditional Korean	Wild collected and cultivated	Cosmetic; Medicinal
4	<i>Brassocattleya marcella</i>	Leaf; Stem	None known	Cultivated (intergeneric hybrid)	Cosmetic
5	<i>Calanthe discolor</i>	Whole plant	None known	Wild (possibly some cultivation)	Cosmetic
6	<i>Cremastra appendiculata</i>	Pseudobulb; Tuber	Traditional Chinese Traditional Korean	Wild collected	Medicinal
7	<i>Cycnoches cooperi</i>	Flower; Leaf; Whole plant	None known	Possibly cultivation (there are clonal varieties)	Cosmetic
8	<i>Cymbidium goeringii</i>	Whole plant	None known	Cultivated and wild collected	Cosmetic; Food Supplement
9	<i>Cymbidium grandiflorum</i>	Flower; Root	None known	Cultivation (possibly some wild)	Cosmetic
10	<i>Cymbidium great flower</i>	Bulb; Leaf; Stem; Whole plant	None known	Cultivation (this is a hybrid)	Cosmetic
11	<i>Cymbidium kanran</i>	Whole plant	None known	Cultivation likely (there are over 50 cultivars)	Cosmetic
12	<i>Cymbidium lancifolium</i>	Whole plant	None known	Not certain (there are data on mass propagation with tissue culture)	Cosmetic
13	<i>Cymbidium lucky flower</i>	Flower; Stem	None known	Cultivation (this is a hybrid)	Cosmetic
14	<i>Cypripedium pubescens</i>	Root	Native American	Not certain	Cosmetic; Medicinal
15	<i>Dendrobium chrysotoxum</i>	Stem	Traditional Chinese	Cultivated	Cosmetic; Medicinal
16	<i>Dendrobium fimbriatum</i>	Stem	Traditional Chinese	Cultivated	Medicinal
17	<i>Dendrobium huoshanense</i>	Leaf; Stem	None known	Note certain (there are data on propagation techniques)	Cosmetic
18	<i>Dendrobium moniliforme</i>	Leaf; Stem; Tissue Culture	None known	Artificial propagation; Callus culture	Cosmetic
19	<i>Dendrobium nobile</i>	Aerial part; Stem; Whole plant	Traditional Chinese; Traditional Korean	Cultivated	Cosmetic; Food supplement; Medicinal
20	<i>Dendrobium officinale</i>	Stem	Traditional Chinese	Not certain (there are data on clonal propagation methods)	Medicinal
21	<i>Dendrobium phalaenopsis</i>	Flower	None known	Cultivated	Cosmetic
22	<i>Gastrodia elata</i>	Aerial part; Rhizome (tuber)	Traditional Chinese; Traditional Kampo Traditional Korean	Wild collected and also cultivated	Cosmetic; Medicinal
23	<i>Habenaria intermedia</i>	Tuber	Traditional Ayurvedic	Wild collected	Medicinal
24	<i>Malaxis acuminata</i>	Pseudobulb; Root	Traditional Ayurvedic	Wild collected	Medicinal
25	<i>Neofinetia falcata</i>	Tissue culture	None known	Callus culture	Cosmetic
26	<i>Onychium japonicum</i>	Whole plant	None known	Not certain	Cosmetic
27	<i>Orchis maculata</i>	Flower; Leaf; Stem	None known	Cultivation	Cosmetic
28	<i>Orchis mascula</i>	Flower; Tuber and fecula of the roots; Whole plant	Traditional Siddha; Traditional Unani	Cultivation (likely)	Cosmetic; Food supplement
29	<i>Orchis morio</i>	Flower	None known	Cultivation (likely)	Cosmetic

No.	Botanical name	Part(s) used	System(s) of Medicine	Source(s)	Type(s) of products
30	<i>Paphiopedilum Maudiae</i>	Flower	None known	Cultivated (intergeneric hybrid)	Cosmetic
31	<i>Phalaenopsis amabilis</i>	Whole plant	None known	Micropropagation (possible)	Cosmetic
32	<i>Phalaenopsis lobbii</i>	Whole plant	None known	Micropropagation (possible)	Cosmetic
33	<i>Phalaenopsis pulcherrima</i>	Callus culture; Leaf cell culture	None known	Callus culture; Leaf cell culture	Cosmetic
34	<i>Phalaenopsis sogo yukidian</i>	Flower petal	None known	Cultivation (this is a hybrid)	Cosmetic
35	<i>Pleione bulbocodioides</i>	Pseudobulb	Traditional Chinese	Not certain	Medicinal
36	<i>Pleione yunnanensis</i>	Pseudobulb	Traditional Chinese	Not certain	Medicinal
37	<i>Vanda coerulea</i>	Whole plant	None known	Not certain (there are data on mass propagation methods)	Cosmetic
38	<i>Vanda teres</i>	Stem	None known	Wild collected and propagation by tissue culture	Cosmetic
39	<i>Vanda tessellata</i>	Root	Traditional Ayurvedic; Traditional Siddha; Traditional Unani	Wild collected	Medicinal

Information about the Databases Used

In the desk research to prepare this report a number of useful databases were utilized, including tariff classification and customs rulings databases, natural ingredient databases and finished product databases, including the following:

HS CODE AND TARIFF DATABASES

- European Commission, Taxation and Customs Union. **European Binding Tariff Information (EBTI)**; the European Community created the BTI system as a tool to assist economic operators to obtain the correct tariff classification for goods they intend to import or export: http://ec.europa.eu/taxation_customs/dds2/ebti/ebti_home.jsp?Lang=en
- Korea Customs Service (KCS), KCS Tariff Database: <http://www.customs.go.kr/kcshome/site/index.do?layoutSiteId=english>
- Republic of China (Taiwan), Ministry of Finance, Directorate General of Customs, **Tariff Database Search System**: <http://web.customs.gov.tw/rate/rate/esearch.asp>
- United States Customs and Border Protection, **Customs Rulings Online Search System (CROSS)**: <http://rulings.cbp.gov>
- United States International Trade Commission (ITC), **Harmonized Tariff Schedule of the United States (HTSUS)**: <http://www.usitc.gov/TATA/HTS/>
- World Customs Organisation (WCO). **Harmonised System Commodity Database**: <http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-online.aspx>

INGREDIENT DATABASES

- Alibaba.com: <http://www.alibaba.com/>
- European Commission Directorate General Health and Consumers, **Cosmetic Ingredients & Substances (CosIng®)**, a European Commission database with information on cosmetic substances and ingredients used in European products: <http://ec.europa.eu/consumers/cosmetics/cosing/>
- Perflavory Information System: <http://www.perflavory.com/index.html#>
- Personal Care Products Council (PCPC) International Buyers' Guide: <http://buyers.personalcarecouncil.org/>
- The Good Scents Company Information System database, providing information to the Flavour and Fragrance industries: <http://www.thegoodscentscompany.com/>

FINISHED PRODUCT DATABASES

- Arzneimittelkompendium der Schweiz®, **compendium.ch, dem neuen Webauftritt des Arzneimittel-Kompendiums**: <http://www.kompendium.ch/>
- **Gelbe Liste Pharmindex**; Das in Deutschland einmalige Nachschlagewerk ermöglicht das sichere und schnelle Identifizieren von Tausenden von Tabletten, Kapseln, Dragees und anderen festen Arzneimitteln: <http://www.gelbe-liste.de/gelbe-liste-identia-2014-erschiene>

- Health Canada, Natural Health Products Directorate (NHPD), **Licensed Natural Health Products Database (LNHPD)**; information on all authorized products, names and formulation details, and marketing authorization holder: <http://webprod5.hc-sc.gc.ca/lnhpd-bdpsnh/index-eng.jsp>
- Kingdom of the Netherlands, **Medicines Evaluation Board (MEB) Medicines Data Bank**; contains information on those medicinal products that are registered in the Netherlands through the MEB: <http://www.cbg-meb.nl/CBG/en/human-medicines/geneesmiddeleninformatiebank/>
- United Kingdom, Medicines and Healthcare products Regulatory Agency (MHRA), **List of Products Granted a Traditional Herbal Registration (THR)**: <http://www.mhra.gov.uk/Howweregulate/Medicines/Herbalmedicinesregulation/RegisteredTraditionalHerbalMedicines/ListofproductsgantedaTraditionalHerbalRegistrationTHR/index.htm>

SPECIES DATABASES

- Flora of China: <http://flora.huh.harvard.edu/china/>
- Germplasm Resources Information Network (GRIN) Taxonomy for Plants: <http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl>
- Species+, developed by UNEP-WCMC and the CITES Secretariat, is a website designed to assist Parties with implementing CITES, CMS and other multilateral environmental agreements (MEAs). Species+ provides a centralised portal for accessing key information on species of global concern: <http://www.speciesplus.net/>

1. *Anoectochilus formosanus*

Botanical name: *Anoectochilus formosanus* Hayata (Orchidaceae)

Synonyms: None known.

Chinese name: 台湾银线兰 - tai wan yin xian lan

1.1. Countries of origin

According to Flora of China, this species occurs in broad-leaved evergreen forests and bamboo forests at altitudes of 500 to 1500 m in Taiwan as well as the Ryukyu Islands of Japan.¹

According to Chang et al. (2007), this species was formerly collected in the wild but now is mass propagated by micropropagation.²

1.2. Commercially traded forms

1.2.1. *Anoectochilus Formosanus* Cell Culture Extract (CosIng)

Description: *Anoectochilus Formosanus* Cell Culture Extract is the extract of a cell culture suspension of the whole plant, *Anoectochilus formosanus*, Orchidaceae.

INCI Name: *Anoectochilus Formosanus* Cell Culture Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Skin conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

1.2.2. *Anoectochilus Formosanus* Extract (CosIng)

Description: *Anoectochilus Formosanus* Extract is the extract of the whole plant of *Anoectochilus formosanus*, Orchidaceae.

INCI Name: *Anoectochilus Formosanus* Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Skin conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

¹ *Anoectochilus formosanus*. In: *Flora of China*:

http://flora.huh.harvard.edu/china/mss/volume25/FOC_25_Orchidaceae_all.pdf

² Chang DCN et al. New cultivation methods for *Anoectochilus formosanus* Hayata. *Orchid Science and Biotechnology*. 2007;1(2):56-60. Available at:

[http://www.globalsciencebooks.info/JournalsSup/images/0712/OSB_1\(2\)56-60o.pdf](http://www.globalsciencebooks.info/JournalsSup/images/0712/OSB_1(2)56-60o.pdf)

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf, Deutschland

<http://www.mani-gmbh.com/web/extracts.392.html>

1.3. Selected finished products possibly in the European market

1.3.1. Cosmetic products



Product name: Sansim Chungasun Cream

European marketer: BeCleo.com is a specialty Korean e-tailer serving customers globally:
<http://www.becleo.com/skin-care/face/moisturizers/sansim-chungasun-cream.html>

Ingredients: Extracts of several Asian botanical species including Anoectochilus Formosanus Extract, among others.

Note: Company claims to ship their products globally including to customers in European countries, namely Denmark, Finland, France, Germany, Norway, Portugal, Spain, Sweden and United Kingdom.

2. *Bletia hyacinthina*

Botanical name: According to Flora of China, *Bletia hyacinthina* (Smith) Aiton is a synonym of *Bletilla striata* (Thunberg) H. G. Reichenbach.³

Chinese name: 白及 [bai ji]

2.1. Countries of origin

According to MAPROW Species Data Fact Sheet *Bletilla striata* (syn. *Bletia hyacinthina*) occurs in China, Japan, North Korea and South Korea.

2.2. Commercially traded forms

2.2.1. *Bletia Hyacinthina* Bulb Extract (CosIng)

Description: *Bletia Hyacinthina* Bulb Extract is an extract of the bulbs of *Bletia hyacinthina*, Orchidaceae.

INCI Name: *Bletia Hyacinthina* Bulb Extract.

INN Name: None stated in CosIng database.

CAS #: 223748-10-5

EC#: None stated in CosIng database.

HS Code(s): HS 1302.19 (WCO)

Functions: Skin conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

2.2.2. *Bletia Hyacinthina* Extract

Description: Liquid Extract of Bai Qi (*Bletia Hyacinthina*) pseudobulbs made with water and propylene glycol as solvents.

INCI Name: Aqua, Propylene Glycol, *Bletia Hyacinthina* Extract

INN Name: None known.

CAS #: 7732-18-5, 57 55 6, and/or 223748-10-5

EC #: 231 791 2 and/or 200 338 0

HS Code(s): HS 1302.19 (WCO)

Applications: Creams, milks, and lotions for dry, dehydrated and irritated skin; Hand and foot creams; Moisturising and soothing shower gels and bath products; After-sun preparations; After-shaves; and Shampoos for sensitive and irritated scalp.

Selected European marketers of this ingredient include:

Laboratoire Ennagram

10, rue Jules Auffret, 93500 PANTIN, France

<http://ennagram.eu/index.php?a=products&idDerive=6>

mani GmbH

³ *Bletilla striata*. In: *Flora of China*:

http://flora.huh.harvard.edu/china/mss/volume25/FOC_25_Orchidaceae_all.pdf

Erich-Müller-Straße 19 a, 40597 Düsseldorf
<http://www.mani-gmbh.com/web/extracts.392.html>

2.3. Selected finished products possibly in the European market

2.3.1. Cosmetic products



Product Name: Reinigungslotion Tonique Camomille - normale/trockene Haut

European marketer: CLARINS SA
4 rue Berteaux Dumas, 92200 Neuilly sur Seine (France)
<http://www.clarins.ch/de/reinigungslotion-tonique-camomille---normale%2Ftrockene-haut/C010103001.html>

Ingredients: Water (Aqua), Sorbitol, Dipropylene Glycol, Oleth-20, Glycerin, Panthenol, Butylene Glycol, Propylene Glycol, Parfum (Fragrance), PEG-8, Alpha-Glucan Oligosaccharide, PEG-32, Lactic Acid, Carbomer, Tilia Cordata Wood Extract, Tocopheryl Acetate, Anthemis Nobilis Flower Extract, **Bletia Hyacinthina Bulb Extract**, Retinyl Palmitate, Helianthus Annuus (Sunflower) Seed Oil, Phenoxyethanol, Methylparaben, Sodium Citrate, Disodium EDTA, BHT, Limonene, Linalool, Geraniol, Citral, Citronellol, CI 19140/Yellow 5.

3. *Bletilla striata*

Botanical name: *Bletilla striata* (Thunb. ex A.Murray) Rchb.f.

Synonyms:⁴ *Bletia gebina* Lindl.
Bletia hyacinthina (Sm.) R.Br.
Bletia striata (Thunb. ex A. Murray) Druce
Bletilla gebina (Lindl.) Rchb.f.
Bletilla hyacinthina (Sm.) Rchb.f.
Calanthe gebina Lodd.
Cymbidium hyancinthinum Sm.
Cymbidium striatum (Thunb.) Sw.
Epidendrum striatum (Thunb.) Thunb.
Epidendrum tuberosum Lour.
Gyas humilis salisb.
Jimensia nervosa Raf.
Jimensia striata (Thunb. ex A. Murray) Garay & R.E. Schultes
Limodorum striatum Thunb

Chinese name: 白及 [bai ji]

3.1. Countries of origin

According to MAPROW Species Data Fact Sheet *Bletilla striata* occurs in China, Japan, North Korea and South Korea.

According to Flora of China, *Bletilla striata* grows wild in evergreen broad-leaved forests, Quercus forests, coniferous forests, in grassy places, and crevices at altitudes of 100 to 3200 m. in the Provinces of Anhui, Fujian, SE Gansu, Guangdong, Guangxi (Guangxi Zhuang Autonomous Region), Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, S Shaanxi, Sichuan, and Zhejiang. Outside of the PRC, it occurs in Japan, Korea, and Myanmar.⁵

According to Ming-Kai et al (2013), the wild resource of *Bletilla striata* will rapidly decrease in Eastern Asian countries due to over collection as well as habitat destruction and fragmentation... “The conflict between the great market demand for the pseudobulbs of *Bletilla* and the decreased wild resource has necessitated the breeding of cultivars for high yields, high concentrations of active components and high resistance to diseases. Unfortunately, no cultivar has been bred so far and selections of superior individuals meeting the requirements are now underway from field and hybrid progenies”.⁶

⁴ MAPROW Species Data Fact Sheet.

⁵ Orchidaceae. In: Flora of China:

http://flora.huh.harvard.edu/china/mss/volume25/FOC_25_Orchidaceae_all.pdf

⁶ Ming-Kai W. et al. Isolation of microsatellite markers for *Bletilla striata* and cross-amplification in other related species. *African Journal of Biotechnology*. 2013;12(48):6691-6694.



白芨苗 [Bletilla striata seedlings]

Image source: <http://www.zyctd.com/exchange-item-1513217-1-1.html>

3.2. Commercially traded forms



白芨 [Bletillae rhizoma dried pieces]

Image source: <http://www.zyctd.com/exchange-item-1510377-1-1.html>



白芨 0.8cm 筛子下面的 [Bletillae rhizoma, cut dried pieces, 0.8 cm screen sieve]

Image source: <http://www.zycmmt.com/zhongyao-23-244549-36443.html>

3.2.1. Bletillae Rhizoma - 백급 (KHP)

Source: Korean Herbal Pharmacopoeia (KHP): Bletillae Rhizoma is the rhizome of *Bletilla striata* (Thunberg) Reichenbach fil. (Orchidaceae).

Description: Bletillae Rhizoma is flat, triangular-shaped ovate, 2 ~ 3 cm long, and 1 ~ 2 cm in diameter. The outer surface is yellowish white ~ yellowish brown, and left with scars of stems or ray-like scars of leaves on the tip of the upper side. The texture is hard and horny. It is odourless, tastes slightly bitter, and is mucilaginous.⁷

HS Code(s): HS 1211.90 (WCO).

3.2.2. Bletillae Rhizoma - 白芨 - Baiji (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): Common Bletilla Tuber is the dried tuber of *Bletilla striata* (Thunb.) Reichb. f. (Fam. Orchidaceae). The drug is collected in summer and autumn, removed from fibrous roots, washed, boiled or steamed until no dry core visible, dried to half dryness in the sun, peeled to remove the outer tissue, and then dried in the sun.⁸

HS Code(s): HS 1211.90 (WCO).

Selected European marketers of this ingredient:

LIAN CHINAHERB

Fürtistrasse 7
CH-8832 Wollerau
<http://www.lian.ch/>

3.2.3. Bletillae Rhizoma Recens (fresh rhizome)



白芨 鲜货 产地 江西省赣州市宁都县 (Bletilla striata, fresh, origin Jiangxi, Ganzhou)

Image source: <http://www.zycmm.com/zhongyao-23-195708-42532.html>

Source: Fresh tuber of *Bletilla striata* (Thunb.) Reichb. f. (Fam. Orchidaceae).

HS Code(s): HS 1211.90 (WCO).

⁷ Korean Herbal Pharmacopoeia, English Edition 2002.

⁸ Pharmacopoeia of the People's Republic of China, English Edition 2010

3.2.4. Bletilla Striata Root Extract (CosIng)

Description: Bletilla Striata Root Extract is the extract obtained from the roots of Bletilla Striata, Orchidaceae.
INCI Name: Bletilla Striata Root Extract
INN Name: None stated in CosIng database.
CAS #: None stated in CosIng database.
EC #: None states in CosIng database.
HS Codes: HS 1302.19 (WCO)
Functions: Skin conditioning (maintains the skin in good condition) component of cosmetic products.

European marketers of Bletilla Striata Root Extract include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

3.2.5. Bletilla Striata Root Powder (CosIng)

Description: Bletilla Striata Root Powder is the powder obtained from the dried, ground roots of *Bletilla striata*, Orchidaceae.
INCI Name: Bletilla Striata Root Powder
INN Name: None stated in CosIng database.
CAS #: None stated in CosIng database.
EC #: None states in CosIng database.
HS Code(s): HS 1211.90 (WCO)
Functions: Antimicrobial (helps control the growth of micro-organisms on the skin), humectant (holds and retains moisture), and skin conditioning (maintains the skin in good condition) in cosmetic products.

3.2.6. Bletilla Striata Root / Stalk Powder (CosIng)

Description: Bletilla Striata Root/Stalk Powder is the powder obtained from the dried, ground roots and stalks of *Bletilla striata*, Orchidaceae.
INCI Name: Bletilla Striata Root/Stalk Powder
INN Name: None stated in CosIng database.
CAS #: None stated in CosIng database.
EC #: None states in CosIng database.
HS Code(s): HS 1211.90 (WCO)
Functions: Abrasive (removes materials from various body surfaces or aids mechanical tooth cleaning or improves gloss), masking (reduces or inhibits the basic odour or taste of the product, and skin conditioning (maintains the skin in good condition) in cosmetic products.

3.2.7. Bletilla Striata Root Water (CosIng)

Description: Bletilla Striata Root Water is the aqueous solution of the steam distillates obtained from the roots of *Bletilla striata*, Orchidaceae.
INCI Name: Bletilla Striata Root Water
INN Name: None stated in CosIng database.
CAS #: None stated in CosIng database.
EC #: None states in CosIng database.
HS Code: Unable to determine.

Functions: Flavouring (gives flavour to the cosmetic product), masking (reduces or inhibits the basic odour or taste of the product, and perfuming (used for perfume and aromatic raw materials) in cosmetic products.

3.3. Selected finished products possibly in the European market

3.3.1. Cosmetic products



Product name: Herborist T'ai Chi Weisse Maske

European Marketer: Parfümerie Douglas GmbH, Abteilung Internet, Kabeler Straße 4, 58099 Hagen, Deutschland

https://www.douglas.de/douglas/Pflege-Gesicht-Maske-Herborist-T%27ai-Chi-Line-Masks_productbrand_3000065152.html

Ingredients: Aqua, glycerin, ci 77891, dimethicone, paraffinum liquidum, diisostearyl malate, acrylates copolymer, petrolatum, cetareth-20, glyceryl stearate, pentaerythrityl distearate, polyacrylamide, Simmondsia chinensis seed oil, cetyl dimethicone, tourmaline, c13-14 isoparaffin, propylene glycol, Olea europaea fruit oil, diazolidinyl urea, sodium hyaluronate, laureth-7, xanthan gum, methylparaben, hydrogenated dimer/dilinoleyl/dimethylcarbonate copolymer, bht, castoryl maleate, sodium astrocaryum murumuruatate, isopropyl palmitate, propylparaben, Benincasa cerifera seed extract, amomum aromaticum fruit extract, ginkgo biloba leaf extract, perilla ocymoides seed oil, Atractylodes macrocephala root extract, Paeonia lactiflora root extract, **Bletilla striata root extract**, butylene glycol, Poria cocos extract, Inula britannica flower extract, Atractylodes macrocephala root extract, ampelopsis japonica root extract, Paeonia lactiflora root extract, Morus alba bark extract, sophora japonica root extract, Prunus persica leaf extract, Salix alba bark extract, tocopherol.

3.3.2. Medicinal products

Note: This botanical could be present in any European countries where traditional Oriental herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Oriental formulations that contain this botanical include:

- Bai Ji Fei
- Bai Ji Pi Pa Wan
- Fei Xu Ke Chuan Ling
- Li Fei Tang Yi Pian



Product name: “Li Fei Tang Yi Pian” (Sugar-coated Pulmonary Tablets; also known as Benefit Lung Decoction Sugar-Coated Tablets).

Ingredients: Calcium 3.4%; **Bai Ji (Bletilla) 26%**; Bai Bu (Stemona) 14.5%; Wu Wei Zi (schisandra) 12.6%; Mu Li (ostrea) 10.6%; Pi Pa Ye (Eriobotrya) 9.7%; Bai He (lilium) 7.7%; Gan Cao (liquorice) 5.8%; Ge Jie (gecko) 4.8%; Dong Chong Xia Cao (cordyceps) 4.8%.

4. Brassocattleya marcella

Botanical name: *Brassocattleya marcella* Koss

4.1. Countries of origin

This species does not occur in the wild. *Brassocattleya marcella* Koss is an intergeneric hybrid between orchids belonging to the genera *Brassavola* and *Cattleya*.⁹

4.2. Commercially traded forms

4.2.1. Brassocattleya Marcella Koss Leaf/Stem Extract (CosIng)

Description: Brassocattleya Marcella Koss Leaf/Stem Extract is the extract of the leaves and stems of *Brassocattleya marcella* Koss, Orchidaceae.

INCI Name: Brassocattleya Marcella Koss Leaf/Stem Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Bleaching, emollient, skin-conditioning and skin-protecting component of cosmetic products.

European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

4.3. Selected finished products possibly in the European market

4.3.1. Cosmetic products



Product name: Orchidée Impériale

⁹ Cardoso JC et al. Gibberellic acid and water regime in the flowering induction of *Brassocattleya* and *Cattleya* hybrid orchids. *Hortic. Bras.* [online]. 2010;28(4):395-398: <http://www.scielo.br/pdf/hb/v28n4/03.pdf>

European marketer: Guerlain SA, 125, rue du Président Wilson, 92593 Levallois Perret Cedex FRANCE

<http://www.querlain.com/fr/fr-fr/explorer-querlain/creations-emblematicques/orchidee-imperiale>

Ingredients: Water, Caprylic/Capric Triglyceride, Glycerin, Alcohol, Butylene Glycol, Isohexadecane, Dimethicone, C14-22 Alcohols, Polyglycerin-3, Tromethamine, Silica, Lactic Acid, Steareth-21, Phenoxyethanol, C12-20 Alkyl Glucoside, Decyloxazolidinone, Glyceryl Stearate, Behenyl Alcohol, Xanthan Gum, Calcium Pantetheine Sulfonate, Dipotassium Glycyrrhizate, Tetrasodium Edta, Tocopheryl Acetate, Fragrance, Acrylates/C10-30 Alkyl Acrylate Crosspolymer, Malva Sylvestris (Mallow) Extract, Batyl Alcohol, Lecithin, Menthoxypropanediol, Sodium Hyaluronate, Helianthus Annuus (Sunflower) Seed Extract, Mica, Cyanotis Arachnoidea Root Extract, Adenosine, Glycyrrhiza Glabra (Licorice) Root Extract, Ethylhexylglycerin, Diacetyl Boldine, **Brassocattleya Marcella Koss 'pink Marvel' Leaf/Stem Extract**, Orchid Extract, Lilium Candidum Bulb Extract, Bht, Titanium Dioxide, Iron Oxides.

5. Calanthe discolor

Botanical name: *Calanthe discolor* Lindley

Synonyms: *Alismorkis discolor* (Lindley) Kuntze; *Calanthe cheniana* Handel-Mazzetti; *C. esquirolei* Schlechter.

Chinese name: 虾脊兰 [xia ji lan]

5.1. Countries of origin

According to Flora of China, this species occurs in evergreen broad-leaved forests at altitudes of 800 to 1500 m. in the Provinces of Anhui, (northern) Fujian, Guangdong, (southern) Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, and Zhejiang. Outside of the PRC, it occurs in Japan and Korea.¹⁰

According to Lin and Huang (2012), there are abundant wild populations of *Calanthe discolor* in China yet research into cultivation and propagation techniques is ongoing.¹¹

5.2. Commercially traded forms

5.2.1. Calanthe Discolor Extract (CosIng)

Description: Calanthe Discolor Extract is an extract of the whole plant *Calanthe discolor*, Orchidaceae.

INCI Name: Calanthe Discolor Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Skin-conditioning component of cosmetic products.

European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

5.3. Selected finished products possibly in the European market

5.3.1. Cosmetic products

¹⁰ Orchidaceae. In: Flora of China:

http://flora.huh.harvard.edu/china/mss/volume25/FOC_25_Orchidaceae_all.pdf

¹¹ Lin B, Huang ML. The Cultivation and Utilization of *Calanthe discolor* Lindl. Subtropical Plant Science 2012;41(01):79-82: http://118.145.16.229:81/Jweb_sps/EN/abstract/abstract63.shtml#



Product name: Mosbeau White Evolution Platinum

European marketer: Hollywood Essentials®, Hauptstrasse 31, 37619, Hehlen, Deutschland
<http://www.beautifulskinwhitening.com/ingredients.php>

Ingredients: Placental protein, collagen, arbutin, white tea extract, vitamin C, glutathione, **Calanthe Discolor Extract**.

6. *Cremastra appendiculata*

Botanical name: *Cremastra appendiculata* (D. Don) Makino

Chinese name(s): 杜鹃兰 [du juan lan]
毛慈姑 [mao ci gu]
山慈菇 [shan ci gu]

Korean name: 산자고, 모자고

6.1. Countries of origin

According to Flora of China, this species occurs in wet places in forests, along valleys at altitudes of 400 to 2900 m. in the Provinces of Anhui, Chongqing, (southern) Gansu, (northern) Guangdong, Guangxi (Guangxi Zhuang Autonomous Region), Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, (southern) Shaanxi, (southern) Shanxi, Sichuan, Taiwan (Republic of China), Xizang (Tibet Autonomous Region), (southeastern) Yunnan, and Zhejiang. Outside of China it occurs in Bhutan, India, Japan, Korea, Nepal, Thailand, and Vietnam.¹²



山慈菇

Image source: <http://www.zyctd.com/exchange-list-0-1-0.html?keywords=%u5C71%u6148%u83C7&mbid=497>

6.2. Commercially traded forms

6.2.1. *Cremastrae* Tuber - 산자고, 모자고 (KHP)

Source: Korean Herbal Pharmacopoeia (KHP): *Cremastrae* Tuber is the tuber of *Cremastra appendiculata* (D. Don) Makino (Orchidaceae).

Description: *Cremastrae* Tuber is complete ~ some compressed spherical, and 1 ~ 2 mm in diameter. The outer surface is grayish brown ~ brown, possessing a round tip at the upper end, surrounded with protruding wrinkles in the middle, and dent with hollows at the bottom to where the root hairs attached. The texture is hard. The cross-section is white ~ yellowish white and farinaceous. It is odourless, tasteless, and mucous.

HS Code: HS 1211.90 (WCO)

¹² *Cremastra appendiculata*. In: Flora of China: http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028604

6.2.2. Pseudobulbus Cremastrae seu Pleiones / 山慈菇 / shan ci gu (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): Appendiculate Cremastra Pseudobulb or Common Pleione Pseudobulb is the dried pseudobulb of ***Cremastra appendiculata* (D. Don) Makino**, *Pleione bulbocodioides* (Franch.) Rolfe and/or *Pleione yunnanensis* Rolfe (Fam. Orchidaceae). The former is known as "Maocigu", and the latter two are known as "Bingqiuzi". The drug is collected in summer and autumn, removed from the aerial part and soil, sorted according to size, steamed thoroughly with boiling water, and dried.

HS Code: HS 1211.90 (WCO)

Selected European marketers of this ingredient include:

Jin Feng Germany

Wasserstraße 18

D-18439 Stralsund, Mecklenburg/Vorpommern, Germany

<http://www.jin-feng-germany.com/>

Sanjiao.nl B.V. - Die Chinesische Kräuterapotheke

Storkstraat 55, 3905 KX Veenendaal

<http://www.sanjiao.de/tier-kraut/einfache-kruter-pferde-und-haustiere>

Note: Some European marketers of Chinese medicinal herbs list an entirely different species under the same Chinese pinyin name of 'shan ci gu'. For example, **Apotheke am Theater, Freiburg** lists Tulpenknollen chinesische (*Tulipae edulis tubera*) as 'Shan Ci Gu' but also states that it is not available (Dieser Artikel ist nicht lieferbar).¹³

According to Flora of China, the pinyin name for *Tulipa edulis* is 'lao ya ban'.

Furthermore, the Swissmedic 'Liste TAS' (Liste der dokumentierten traditionellen asiatischen Stoffe) includes the following statements: Cremastrae seu Pleiones Pseudobulbus (Pseudobulbus Shancigu nicht zulässig!!!); nicht zu verwechseln mit *Tulipa edulis* (Miq.) Baker, *Iphigenia indica* Kunth et Benth. Internationaler Artenschutz: CITES App. II (Orchideen) (CL).¹⁴

6.3. Selected finished products possibly in the European Market

6.3.1. Medicinal products

Note: This botanical could be present in any European countries where traditional Oriental herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Oriental formulations that contain this botanical include:

- Jiedu Xiaozheng Yin
- Tai Yi Zi Jin Dan [Tai Yi Purple Gold Elixir]
- Zi Li Shan Ci Gu Tang

¹³ TCM-Kräuter. In: Apotheke am Theater, Freiburg: <http://internet-apotheke-freiburg.de/shop/tcm.html>

¹⁴ Swissmedic. Liste der dokumentierten traditionellen asiatischen Stoffe (Liste TAS). 01 Mai 2011: <https://www.swissmedic.ch/zulassungen/00153/00189/00190/00738/index.html?lang=de>

7. *Cycnoches cooperi*

Botanical name: *Cycnoches cooperi* Rolfe

Synonyms: *Cycnoches pentadactylon* var. *cooperi* (Rolfe) Pabst (not accepted)

7.1. Countries of origin

According to UNEP-WCMC database, this species occurs only in Peru. Web searches found mention of clonal varieties.

7.2. Commercially traded forms

7.2.1. *Cycnoches Cooperi* Extract (CosIng)

Description: *Cycnoches Cooperi* Extract is the extract of the whole plant of the orchid, *Cycnoches cooperi*, Orchidaceae.

INCI Name: *Cycnoches Cooperi* Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Antioxidant and emollient component of cosmetic products.

Selected European marketers of this ingredient include:

ARERKO KİMYA TİCARET

Ekşioğlu Plaza - Küçük Bakkalköy Mah.

Çandarlı sok. No 7 Daire: 7 Ataşehir-İstanbul

<http://www.arerko.com/index.php?eksayfa=289>

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

7.2.2. *Cycnoches Cooperi* Flower/Leaf Extract (CosIng)

Description: *Cycnoches Cooperi* Flower/Leaf Extract is an extract of the flowers and leaves of the orchid, *Cycnoches cooperi*, Orchidaceae.

INCI Name: *Cycnoches Cooperi* Flower/Leaf Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

Greentech S.A.

Biopôle Clermont Limagne, Saint Beuzire 63360 – FRANCE

<http://www.greentech.fr/>

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

7.3. Selected finished products possibly in the European market

7.3.1. Cosmetic products



Product Name: Maria Galland Essence 002 Orchidee Noire Regeneration - luxuriöses Regenerations-Serum 10 x 2,5 ml

European Marketers:¹⁵ Adriana Cosmetics GbR, Karlsruhe (Baden-Württemberg):

<http://adriana-cosmetics.com/>

Kosmetikkaufhaus, Friedberg (Hessen):

<http://www.kosmetikkaufhaus.de/>

Ingredients: Schwarzer Orchideen-Extrakt, Fünf-Blüten-Komplex, Arganöl, Jojobaöl, Macadamianussöl.



Product Name: Lierac Paris Premium CRÈME VOLUPTUEUSE JOUR & NUIT

¹⁵ In an email received from Patricia von Deschwanden on 8 August 2014, information was provided about an import permit application for a product “Essence 002 Orchidée Noire” (Maria Galland Paris) containing *Cycnoches cooperi* with Klostermann GmbH (München) listed as the exporter. The product could not be found in the websites of Maria Galland and/or Klostermann, however it is shown in websites of some European online marketers such as those listed above in Friedberg and Karlsruhe, respectively.

European Marketer: ALES GROUPE, S.A.
99 rue du Faubourg Saint Honoré
75008 Paris France
<http://www.alesgroupe.com/>

Ingredients: Water (Aqua), Caprylic/Capric Triglyceride Glycerin, Pentaerythrityl Tetraethylhexanoate, Acetyl Hexapeptide-8, Urea, Hydrolyzed Sweet Almond Protein, Glycine, Sodium Pca, Sodium Lactate, Propylene Glycol, Sodium Hyaluronate, Peg-100 Stearate, Glyceryl Stearate, Cetearyl Alcohol, Cetearyl Glucoside, Butyrospermum Parkii (Shea Butter), Hexyldecyl Laurate, Hexyldecanol, Dimethicone, Glycyrrhiza Glabra (Licorice) Leaf Extract, Butylene Glycol, Rosa Hybrid Flower Extract, **Cycnoches Cooperi (Orchid) Flower/Leaf Extract**, Cetyl Palmitate, Papaver Somniferum Seed Oil, Sodium Polyacrylate, Hydrogenated Polydecene, Ppg-5-Laureth-5, Tocopherol, Xanthan Gum, Cetyl Alcohol, Fragrance (Parfum), Phenoxyethanol, Methylparaben, Ethylparaben, Propylparaben, Butylparaben, Isobutylparaben, Potassium Sorbate, Sodium Benzoate, Benzoic Acid, Dehydroacetic Acid, Yellow 5 (Ci 19140).

Note: BLV also provided information that this ingredient is used in the product Guerlain Orchidée Impériale Rich Cream – Soins Complet d'Exception la Crème Riche:
<http://www.guerlain.com/cercleimperial/?q=gammeoi-subcategory/1007/1296/1328/view>

8. *Cymbidium goeringii*

Botanical name: *Cymbidium goeringii* (Rchb.f.) Rchb.f.

Synonyms:¹⁶ *Cymbidium chuen-lan* C.Chow
Cymbidium formosanum Hayata
Cymbidium forrestii Rolfe
Cymbidium mackinnoni Duthie
Cymbidium pseudovirens Schltr.
Cymbidium tentyozanense Masam.
Cymbidium uniflorum T.K.Yen
Cymbidium virens Rchb.f.
Cymbidium yunnanense Schltr.
Maxillaria goeringii Rchb.f.

Chinese name: 春兰 [chun lan]

8.1. Countries of origin

According to Flora of China, this species occurs on rocky slopes, forest margins, and open places in forests at altitudes of 300 to 3000) m. in Chinese Provinces of Anhui, (northern) Fujian, (southern) Gansu, Guangdong, Guangxi (Guangxi Zhuang Autonomous Region), Guizhou, (southern) Henan, Hubei, Hunan, Jiangsu, Jiangxi, (southern) Shaanxi, Sichuan, Yunnan, Zhejiang.¹⁷

Outside of the PRC, it occurs in Bhutan, (northwestern) India, Japan, Republic of China (Taiwan), and Republic of Korea (South Korea).

Wu et al (2010) state that consumer demands have created a significant pressure on wild populations of *Cymbidium goeringii* and, that to help conserve natural populations of *C. goeringii*, investigations into methods of cultivation have begun recently.¹⁸ However, Wang et al (2009) report that it has been cultivated in China for its variegated leaves, fragrant flowers and peloric flower structures for more than ten centuries.¹⁹

8.2. Commercially traded forms

8.2.1. *Cymbidium Goeringii* Extract (CosIng)

Description: *Cymbidium Goeringii* Extract is the extract of the whole plant, *Cymbidium goeringii*, Orchidaceae.

INCI Name: *Cymbidium Goeringii* Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

¹⁶ UNEP-WCMC SPECIES+ database: http://www.speciesplus.net/#/taxon_concepts/27983/names

¹⁷ *Cymbidium goeringii*. In: Flora of China: http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028610

¹⁸ Wu J et al. Rhizoctonia fungi enhance the growth of the endangered orchid *Cymbidium goeringii*. *Botany*. 2010;88:20–29: http://images.wikia.com/orchids/en/images/9/93/Rhizoctonia_fungi_enhance_the_growth_of_the_endangered_orchid_Cymbidium_goeringii.pdf

¹⁹ Wang HZ et al. Molecular diversity and relationships among *Cymbidium goeringii* cultivars based on inter-simple sequence repeat (ISSR) markers: *Genetica*. 2009;136:391–399: http://images4.wikia.nocookie.net/orchids/en/images/e/ee/Molecular_diversity_and_relationships_among_Cymbidium_goeringii.pdf

EC#: None stated in CosIng database.
HS Code: HS 1302.19 (WCO)
Functions: Antioxidant, astringent, hair-conditioning, humectant, skin-conditioning and skin-protecting component of cosmetic products.

Selected European marketers of this ingredient include:

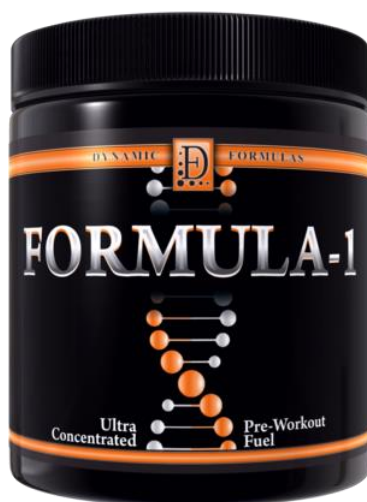
mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

8.3. Selected finished products possibly in the European market

8.3.1. Food Supplement Products



Product name: Dynamic Formulas Formula-1

European marketer: Musclebolics

No known EU address but ships online orders to customers in the UK
<http://musclebolics.com/products/dynamic-formulas-formula-1>

Ingredients: N-acetyl L-tyrosine, Caffeine Anhydrous, Mucuna Pruriens, Synephrine HCL, **Orchilean™ (Cymbidium Goeringii Extract)**.

9. *Cymbidium grandiflorum*

Botanical name: *Cymbidium grandiflorum* Griff. According to UNEP-WCMC SPECIES+²⁰ this is a synonym for *Cymbidium hookerianum* Rchb.f.

Chinese name: 虎头兰 [hu tou lan]

9.1. Countries of origin

According to Flora of China, *Cymbidium hookerianum* occurs among trees in forests and rocks along valleys of altitudes between 1100 to 2700 m. in Chinese Provinces of (southern) Guangxi (Guangxi Zhuang Autonomous Region), (southwestern) Guizhou, (southwestern) Sichuan, (southeastern) Xizang (Tibet Autonomous Region), and Yunnan.²¹ Outside of the PRC, it occurs in Bhutan, (northeastern) India, Nepal, and (northern) Vietnam.

Some of the companies marketing cosmetic products that contain extracts of this species claim that the orchid is either sustainably cultivated in its native habitat or is cultivated under certified organic rules. There is information in the literature mentioning wild collection for local use, for example in Bhutan, but it appears that finished products in the European market may be using starting materials from cultivation.

9.2. Commercially traded forms

9.2.1. *Cymbidium Grandiflorum* Flower Extract (CosIng)

Description: *Cymbidium Grandiflorum* Flower Extract is an extract of the flowers of the orchid, *Cymbidium grandiflorum*, Orchidaceae.

INCI Name: *Cymbidium Grandiflorum* Flower Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

9.2.2. *Cymbidium Grandiflorum* Oily Extract

Description: *Cymbidium Grandiflorum* Oily Extract is the extract of the roots of *Cymbidium grandiflorum*, Orchidaceae.

INCI Name: *Cymbidium Grandiflorum* Root Extract (and) Glycine soja (soybean) oil

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Humectant and skin-conditioning component of cosmetic products.

²⁰ UNEP-WCMC SPECIES+: http://www.speciesplus.net/#/taxon_concepts/17775/names

²¹ *Cymbidium hookerianum*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=242316347

Selected European marketers of this ingredient include:

ACTIVE BOX SRL

Via Giuseppe Pellizza da Volpedo, 4

20149 Milano – Italy

<http://www.activebox.it/>

9.2.3. Cymbidium Grandiflorum Root Extract (CosIng)

Description: Cymbidium Grandiflorum Root Extract is the extract of the roots of *Cymbidium grandiflorum*, Orchidaceae.

INCI Name: Cymbidium Grandiflorum Root Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Humectant and skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

9.3. Selected finished products possibly in the European market

9.3.1. Cosmetic products



Product name: Extrême Lift Crème Anti-Rides à l'Orchidée

European marketer: Laboratoires Pharmaceutiques ARKOPHARMA
ZI 1ère avenue - 9ème rue, 06511 Carros Cedex France

<http://www.plantesystem.com/fr/produits/extreme-lift-creme-anti-rides-a-l-orchidee-9.html>

Ingredients: AQUA, SIMMONDSIA CHINENSIS SEED OIL*, CARTHAMUS TINCTORIUS SEED OIL*, BUTYROSPERMUM PARKII BUTTER*, MEL, XYLITOL, GLYCERIN, CETEARYL OLIVATE, SORBITAN OLIVATE, CETYL PALMITATE, SORBITAN PALMITATE, RIBOSE,

ORYZA SATIVA BRAN OIL EXTRACT*, THEOBROMA CACAO EXTRACT, ARCTOSTAPHYLOS UVA URSI LEAF EXTRACT, CALENDULA OFFICINALIS FLOWER EXTRACT, OLEA EUROPAEA LEAF EXTRACT, HIPPOPHAE RHAMNOIDES FRUIT EXTRACT, CAMELLIA SINENSIS LEAF EXTRACT, MACADAMIA TERNIFOLIA SEED OIL*, **CYMBIDIUM GRANDIFLORUM FLOWER EXTRACT**, MACADAMIA TERNIFOLIA SEED EXTRACT, PHYTIC ACID, CAPRYLIC CAPRIC TRIGLYCERIDE, TOCOPHEROL, HELIANTHUS ANNUUS SEED OIL, XANTHAN GUM, POTASSIUM HYDROXIDE, POTASSIUM SORBATE, CAPRYLOYL GLYCINE, LEVULINIC ACID, SODIUM LEVULINATE, Alpha-TERPINEOL, PARFUM, BENZYL CINNAMATE, LINALOOL, BENZYL BENZOATE, CITRONELLOL.

*Ingrédient issu de l'agriculture biologique



Product name: Lisa Armitage Orchid Extract Radiance Moisturiser

European marketer: Lisa Armitage

The Old Fox, The Square, Barnack, Stamford, Lincs PE9 3EA UK

<http://www.lisaarmitage.com/>

Ingredients:

Aqua, natural emulsifier derived from non GM rapeseed oil (and) Cetearyl Alcohol, Caprylic/Capric Triglyceride (and) **Cymbidium grandiflorum (Orchid) Flower Extract**, Rubus idaeus (Raspberry) Seed Oil, Prunus amygdalus dulcis (Sweet Almond) Oil (and) White Tea (Camellia sinensis) Leaf Extract (and) Green Tea (Camellia sinensis) Leaf Extract (and) Rooibos (Aspalathus linearis) Leaf Extract, Cucumis sativus (Cucumber) Seed Oil, Squalane, Aqua (and) Vaccinium myrtillus (Bilberry) Extract (and) Saccharum officinarum (Sugarcane) Extract (and) Acer saccharum (Sugar Maple) Extract (and) Citrus aurantium dulcis (Orange) Extract (and) Citrus medica limonum (Lemon) Extract, Rosa rubiginosa (Mosqueta) Seed Oil, Camellia kissi Oil, Helianthus annuus (Sunflower) Oil (and) Daucus carota sativa (Carrot) Seed Extract, d-Panthenol, d-alpha Tocopherol, Phenoxyethanol (and) Caprylyl Glycol (and) Chlorphenesin, 2-Dimethylamino ethanol (DMAE), Hydrolysed Collagen Powder, Sodium Hyaluronate, Retinyl Palmitate, Essential Oils of Rose (Rosa centifolia) & Ylang Ylang (Cananga odorata), Natural Constituents of Essential Oils (Benzyl Alcohol, Benzyl Salicylate, Benzyl Benzoate, Citral, Eugenol, Isoeugenol, Geraniol, Citronellol, Farnesol, Limonene, Linalool).

Note: BLV also provided information that this ingredient is used in the product Guerlain Orchidée Impériale Rich Cream – Soins Complet d'Exception la Crème Riche.

The website of Guerlain Orchidée makes these statements about the source of their orchid raw materials:

<http://www.guerlain.com/us/en-us/guerlain-explorer/iconic-creations/orchidee-imperiale>

Protection of the Orchid:

- Sustainable development support a reforestation programme to grow orchids in their natural environment and ensure active ingredients of the highest quality.

The Orchidarium:

- Cultivation in its original environment in a nature reserve (TianZi, China).
- Collection of 3,000 orchids at the Orchid Library (Geneva).
- Biological research at the Basic Research Laboratory (Strasbourg).

10. Cymbidium great flower

Botanical name: *Cymbidium great flower* Marie Laurencin

10.1. Countries of origin

This species does not occur in the wild. It is a hybrid.

10.2. Commercially traded forms

10.2.1. Cymbidium Great Flower Bulb Extract (CosIng)

Description: Cymbidium Great Flower Bulb Extract is the extract of the bulb of *Cymbidium great flower*, Orchidaceae.

INCI Name: Cymbidium Great Flower Bulb Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Hair-conditioning component of cosmetic products.

10.2.2. Cymbidium Great Flower Extract (CosIng)

Description: Cymbidium Great Flower Extract is the extract of the whole plant, *Cymbidium great flower*, Orchidaceae.

INCI Name: Cymbidium Great Flower Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Hair-conditioning component of cosmetic products.

Selected European marketers of this ingredient:

A.C.E.F. S.p.A.

Azienda Chimica e Farmaceutica

Via Umbria 8/14 - 29017 - Fiorenzuola d'Arda (PC), Italy

<http://www.acef.it/>

Note: One of the main suppliers for this ingredient is in Japan: Kawano Mericlone Co., Ltd.:

<http://www.kawano-mericlone.com/en/>

10.2.3. Cymbidium Great Flower Leaf Extract (CosIng)

Description: Cymbidium Great Flower Leaf Extract is the extract of the leaves of *Cymbidium great flower*, Orchidaceae.

INCI Name: Cymbidium Great Flower Leaf Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Hair-conditioning component of cosmetic products.

10.2.4. Cymbidium Great Flower Leaf Powder (CosIng)

Description: Cymbidium Great Flower Leaf Powder is the powder obtained from the leaves of the plant, *Cymbidium great flower*, Orchidaceae.
INCI Name: Cymbidium Great Flower Leaf Powder.
INN Name: None stated in CosIng database.
CAS #: None stated in CosIng database.
EC#: None stated in CosIng database.
HS Code: HS 1211.90 (WCO)
Functions: Hair-conditioning component of cosmetic products.

Note: One of the main suppliers for this ingredient is in Japan: Kawano Mericlone Co., Ltd.: <http://www.kawano-mericlone.com/en/>

10.2.5. Cymbidium Great Flower Stem Extract (CosIng)

Description: Cymbidium Great Flower Stem Extract is the extract of the stems of *Cymbidium great flower*, Orchidaceae.
INCI Name: Cymbidium Great Flower Stem Extract.
INN Name: None stated in CosIng database.
CAS #: None stated in CosIng database.
EC#: None stated in CosIng database.
HS Code: HS 1302.19 (WCO)
Functions: Hair-conditioning component of cosmetic products.

Selected European marketers of this ingredient:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf
<http://www.mani-gmbh.com/web/extracts.392.html>

Note: One of the main suppliers for this ingredient is in Japan: Kawano Mericlone Co., Ltd.: <http://www.kawano-mericlone.com/en/>

10.3. Selected finished products possibly in the European market

10.3.1. Cosmetic products



Product name: Sapò Orchidea Olio Doccia Corpo

European marketer:

Assapora Sapò

via Aleardo Aleardi 25, Jesolo, Lido (Venezia), Italia

<http://www.assaporasapo.it/>

Ingredients:

Glycine Soja Oil, Mipa-Laureth Sulfate, Laureth-4, Prunus Amagdalys Dulcis Oil, Aroma, Propylene Glycol, Tocopheryl Acetate, **Cymbidium Great Flower Extract**, Aqua, Lecithin, Acorbyl Palmitate, Citric Acid.

11. *Cymbidium kanran*

Botanical name: *Cymbidium kanran* Makino

Synonyms: *Cymbidium linearisepalum* Yamam.
Cymbidium omeiense Y.S.Wu & S.C.Chen
Cymbidium oreophyllum Hayata
Cymbidium purpureo-hiemale Hayata
Cymbidium sinokanran T.K.Yen
Cymbidium tentyozanense T.P.Lin
Cymbidium tosaense Masam.

Chinese name: 寒兰 [han lan]

Korean name: 한란 [kanran]

11.1. Countries of origin

According to Flora of China, *Cymbidium kanran* occurs in forests, streamsides, shaded places, and moist and rocky slopes at altitudes of 400 to 2400 m. in the Chinese Provinces of Anhui, (northern) Fujian, Guangdong, Guangxi (Guangxi Zhuang Autonomous Region), Guizhou, Hainan, Hunan, Jiangxi, Sichuan, (southeastern) Xizang (Tibet Autonomous Region), Yunnan, and Zhejiang.²²

According to the UNEP-WCMC SPECIES+ database, it also occurs in Hong Kong Special Administrative Region (SAR) of the People's Republic of China (PRC).²³

Outside of the PRC it occurs in (southern) Japan, Republic of Korea (South Korea), and Republic of China (Taiwan).

According to Jian and Zhu (2013) "in recent decades, the over-collection of wild *Cymbidium* species has been a direct cause for the rarity and endangered nature of these species and populations, which led to a further loss of their genetic diversity and the alteration of their population genetic structure." However, they go on to state that a large and increasing number *C. kanran* cultivars have been developed. Their study evaluated fifty-four *C. kanran* cultivars from China, Japan and South Korea, suggesting that the commercial supply may be coming mostly from cultivation.²⁴

11.2. Commercially traded forms

11.2.1. *Cymbidium Kanran* Extract (CosIng)

Description: *Cymbidium Kanran* Extract is the extract of the whole plant, *Cymbidium kanran*, Orchidaceae.

INCI Name: *Cymbidium Kanran* Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

²² *Cymbidium kanran*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028612

²³ *Cymbidium kanran*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/23821/distribution

²⁴ Jian L, Zhu LQ. Genetic diversity of *Cymbidium kanran* detected by Polymerase chain reaction–restriction fragment length polymorphism (PCR-RFLP) markers. *Journal of Plant Breeding and Crop Science*. 2013;5(8):158-163:

http://www.academicjournals.org/article/article1379512768_Jian%20and%20Zhu.pdf

EC#: None stated in CosIng database.
HS Code: HS 1302.19
Functions: Antioxidant, astringent, emollient and skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

Note: One of the main suppliers of this ingredient is in South Korea, Natural Solution:
<http://www.naturalsolution.co.kr/natural/main/main.html>

11.3. Selected finished products possibly in the European market

11.3.1. Cosmetic products



Product name: Innisfree Orchid Day Cream (made in South Korea)

European marketer: Available in Europe online through www.amazon.de

http://www.amazon.de/Innisfree-Orchid-Cream-SPF30-Korea/dp/B00KV1L2UA/ref=sr_1_2?s=beauty&ie=UTF8&qid=1405294032&sr=1-2&keywords=innisfree+orchid

Ingredients: Jeju *Cymbidium kanran* Makino (250mg), adenosine, orchid extract, mandarin peel extract, green tea extract, camellia leaf extract, cactus fruit extract, cacao extract.

12. *Cymbidium lancifolium*

Botanical name: *Cymbidium lancifolium* Hook.

Synonyms:²⁵ *Cymbidium aspidistrifolium* Fukuy.
Cymbidium bambusifolium Fowlie, Mark & H.S.Ho
Cymbidium caulescens Ridl.
Cymbidium cuspidatum Blume
Cymbidium gibsonii Lindl.
Cymbidium javanicum Blume
Cymbidium kerrii Rolfe
Cymbidium maclehoseae S.Y. Hu
Cymbidium nagifolium Masam.
Cymbidium papuanum Schltr.
Cymbidium robustum Gilli
Cymbidium robustum Gilli
Cymbidium syunitianum Fukuy.

Chinese name: 兔耳兰 [tu er lan]

12.1. Countries of origin

According to Flora of China, this species occurs in open forests, bamboo forests, forest margins, broad-leaved forests, and humus-rich rocks along valleys at altitudes of 300 to 2200 m. in Chinese Provinces of (northern) Fujian, Guangdong, Guangxi (Guangxi Zhuang Autonomous Region), Guizhou, Hainan, (southern) Hunan, (southern) Sichuan, (southeastern) Xizang (Tibet Autonomous Region), Yunnan, (southern) Zhejiang, and Taiwan.²⁶ Outside of the PRC, it occurs in Bhutan, Cambodia, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, Papua New Guinea, Thailand, and Vietnam.

There are reports in the literature of mass propagation of this species using tissue culture technique.²⁷ A recent report by the Indian Council of Agricultural Research (ICAR) “National Research Centre for Orchids” lists *Cymbidium lancifolium* as an orchid species suitable for breeding.²⁸

12.2. Commercially traded forms

12.2.1. *Cymbidium Lancifolium* Extract (CosIng)

Description: *Cymbidium Lancifolium* Extract is the extract of the whole plant, *Cymbidium lancifolium*, Orchidaceae.

INCI Name: *Cymbidium Lancifolium* Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

²⁵ UNEP-WCMC SPECIES+ database: http://www.speciesplus.net/#/taxon_concepts/13959/names

²⁶ *Cymbidium lancifolium*. In: Flora of China: http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028613

²⁷ Kang IS, So IS: Asymbiotic germination and mass propagation of *Cymbidium lancifolium* using tissue culture technique. 1990: <http://agris.fao.org/agris-search/search.do?recordID=KR9301206>

²⁸ Vision Document-2030, National Research Centre for Orchids, Pakyong, Sikkim. 2011: http://nrcorchids.nic.in/Downloads/Vision/VISION_2030.pdf

Functions: Antioxidant, astringent, emollient and skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH, Erich-Müller-Straße 19 a, 40597 Düsseldorf
<http://www.mani-gmbh.com/web/extracts.392.html>

12.3. Selected finished products in the European market

Unable to identify any finished products in the European market that contain this ingredient.

13. Cymbidium lucky flower

Botanical name: *Cymbidium lucky flower* 'Anmitsuhime'

13.1. Countries of origin

This species does not occur in the wild. It is a hybrid.

13.2. Commercially traded forms

13.2.1. Cymbidium Lucky Flower Stem Extract (CosIng)

Description: Cymbidium Lucky Flower Stem Extract is the extract of the stems of *Cymbidium lucky flower*, Orchidaceae.

INCI Name: Cymbidium Lucky Flower Stem Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Hair-conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

13.3. Selected finished products possibly in the European market

Unable to identify any finished products in the European market that contain this ingredient.

14. *Cypripedium pubescens*

Botanical name: According to UNEP-WCMC SPECIES+, *Cypripedium pubescens* is a synonym of *Cypripedium parviflorum* E.Salisb.

Synonyms: *Cypripedium bifidum* Raf.
Cypripedium luteum Aiton ex Raf.
Cypripedium pubescens Willd.

14.1. Countries of origin

According to UNEP-WCMC SPECIES+ database, this species occurs in Canada and in the United States of America.

The American Herbal Products Association (AHPA) Code of Ethics for member companies includes the following statement on this species:

“Businesses and individuals in the horticultural and herb trade refrain from domestic or international trade in wild-harvested Lady’s Slippers. AHPA encourages its members and others in the herb trade to support research in ecology, demographics, cultural methods, and sexual and asexual propagation of *Cypripedium* species.”²⁹

14.2. Commercially traded forms

14.2.1. *Cypripedium* rhizoma

Source: The rhizome and roots of *Cypripedium parviflorum* Salisb.
HS Code: HS 1211.90 (WCO)

14.2.2. *Cypripedium Pubescens* Extract (CosIng)

Description: *Cypripedium Pubescens* Extract is an extract of the roots of the Lady’s Slipper, *Cypripedium pubescens*, Orchidaceae.

INCI Name: *Cypripedium Pubescens* Extract.

INN Name: None stated in CosIng database.

CAS #: 84775-54-2

EC#: 283-884-2

HS Code: HS 1302.19 (WCO)

Functions: Skin-conditioning and tonic component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

Note: One of the main suppliers of this ingredient is a US company, Active Organics:

<http://www.activeorganics.com/>

²⁹ American Herbal Products Association (AHPA). Lady’s Slipper. In: AHPA Code of Ethics & Business Conduct. Silver Spring, MD: AHPA. July 2013:
http://www.ahpa.org/Portals/0/pdfs/13_0715_AHPA_CodeOfEthics.pdf

14.3. Selected finished products possibly in the European market

14.3.1. Cosmetic products



Product name: La Prairie Switzerland Anti-Aging Stress Cream

European marketer: Parfümerie Douglas GmbH
Kabeler Strasse 4, 58099 Hagen, Deutschland
https://www.douglas.ch/douglas/Pflege-Gesicht-Tagespflege-La-Prairie-The-Anti-Aging-Collection-Anti-Aging-Stress-Cream_productbrand_3000045353.html

Ingredients: Water (Aqua), Caprylic/Capric Triglyceride, Dipropylene Glycol, Glycerin, Cetearyl Alcohol, SD Alcohol 40-B (Alcohol Denat.), Simmondsia Chinensis (Jojoba) Seed Oil, Ethylhexyl Palmitate, Butyrospermum Parkii (Shea Butter), Cyclopentasiloxane, Cetyl Alcohol, Potassium Cetyl Phosphate, Beeswax (Cera Alba), Dimethicone, Polysorbate 60, Glycoproteins, Panax Ginseng Root Extract, Equisetum Arvense (Horsetail) Extract, Valeriana Officinalis Rhizome/Root Extract, Scutellaria Galericulata (Skullcap) Extract, Tocopheryl Acetate, Passiflora Incarnata Flower Extract, Verbascum Thapsus Extract, **Cyripedium Pubescens Extract**, Magnolia Acuminata Bark Extract, Symphytum Officinale Leaf Extract, Mucor Miehei Extract, Sodium Hyaluronate, Centella Asiatica Extract, Rosmarinus Officinalis (Rosemary) Leaf Extract, Retinyl Palmitate, Echinacea Angustifolia Extract, Lentinus Edodes Extract, Tocopherol, Butylene Glycol, Triethanolamine, Carbomer, Polysilicone-11, Citric Acid, Propylene Glycol, Disodium EDTA, Fragrance (Parfum), Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde, Linalool, Benzyl Salicylate, Butylphenyl Methylpropional, Hydroxycitronellal, Phenoxyethanol, Sodium Benzoate, Potassium Sorbate, Methylparaben, Titanium Dioxide, Ext. Violet 2, Blue 1

14.3.2. Medicinal products



Product name: CYPRIPEDIUM PUBESCENS D 12 G 10 g Globuli

European marketer: Deutsche Homöopathie-Union
Ottostr. 24, 76227 Karlsruhe, Deutschland
<http://www.dhu-globuli.de/homoeopathische-mittel/c/cypripedium-pubescens/>

Ingredients: Wirkstoffe: *Cypripedium calceolus* var. *pubescens* (hom./anthr.).
Hilfstoff: Saccharose.



Product name: OMIDA® homöopathische Schlafhügel für Kinder

European marketer: OMIDA AG
Erlistrasse 2, 6403 Küsnacht am Rigi - Schweiz
http://www.omida.ch/homoeopathie/komplexmittel/schlafchuegeli_fuer_kinder/

Ingredients: Cypripedium pubescens (Frauenschu) D4, Magnesium carbonicum (Magnesiumcarbonat) D10, Zincum valerianicum (Zinkvalerianat) D12.

Dendrobium chrysotoxum

Botanical name: *Dendrobium chrysotoxum* Lindley

Synonyms: *Callista chrysotoxa* (Lindl.) Kuntze
Callista suavissima (Rchb.f.) Kuntze
Dendrobium suavissimum Rchb.f.

Chinese name: 鼓槌石斛 [gu chui shi hu]

14.4. Countries of origin

According to Flora of China, this species is epiphytic on tree trunks in sunny evergreen broad-leaved forests, and lithophytic on rocks in open forests at altitudes of 500 to 1600 m. in southern and western parts of Yunnan Province.³⁰

According to UNEP-WCMC SPECIES+ database, this species also occurs outside of the PRC in Bangladesh, Bhutan, Cambodia, India, Lao People's Democratic Republic, Myanmar, Nepal, Taiwan Province of China, Thailand and Vietnam.³¹

14.5. Commercially traded forms

14.5.1. Dendrobii Caulis - 石斛 – shihu - (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): *Dendrobium* is the fresh or dried stem of **cultivated species** of *Dendrobium nobile* Lindl., ***Dendrobium chrysotoxum* Lindl.** or *Dendrobium fimbriatum* Hook. and similar species from same genus (Fam. Orchidaceae). The drug is collected in all the year round. For the fresh stem, removed from root and soil; and for the dried stem, removed from foreign matter, treated with boiling water for a moment or baked gently to soften, then rubbed while baking or sun drying to remove the leaf sheath, and dried.³²

HS Code: HS 1211.90 (BTI Reference: DEHH/1350/08-1; Beschreibung: der Art *Dendrobium chrysotoxum* (Goldorchidee). Nach Literaturangaben wird die Art *Dendrobium chrysotoxum* hauptsächlich zu Zwecken der Medizin verwendet. Artenschutzrechtliche Vorschriften sind zu beachten).³³

Selected European marketers of this ingredient may include:

Complemedis – Ihre Apotheke für chinesische Heilmittel

Leinfeldstrasse 59

CH-4632 Trimbach, Schweiz

<http://www.complemedis.ch/produkte/sortiment/205-produkte/7-produkteliste>

HerbaSinica Hilsdorf GmbH

Penzendorfer Str. 12

D- 91126 Rednitzhembach, Deutschland

<http://herbasinica.de/>

³⁰ *Dendrobium chrysotoxum*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028635

³¹ *Dendrobium chrysotoxum*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/25603/distribution

³² Dendrobii Caulis. In: Pharmacopoeia of the People's Republic of China, English Edition. 2010.

³³ European Binding Tariff Information (EBTI):

http://ec.europa.eu/taxation_customs/dds2/ebti/ebti_home.jsp?Lang=en

14.5.2. Dendrobium Chrysotoxum Extract

Description: Dendrobium Chrysotoxum Extract is the extract of the stems of Dendrobium chrysotoxum, Orchidaceae.

INCI Name: None stated in CosIng database.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Anti-aging agent.

14.6. Selected finished products possibly in the European market

14.6.1. Cosmetic products



Product name: Orchidée Impériale Eye and Lip Cream

European marketer: Guerlain SA, 125, rue du Président Wilson, 92593 Levallois Perret Cedex FRANCE

<http://www.guerlain.com/int/en-int/orchidee-imperiale-eye-and-lip-cream>

Ingredients: Although the botanical names of the ingredients are not disclosed the product is made with “gold orchid” and independent news articles report that this is an extract of *Dendrobium chrysotoxum*. Information received from BLV also lists the ingredients of this product to include *Dendrobium chrysotoxum*, *Phalaenopsis ‘Anubis’*, *Vanda coerulea*, and *Vanda teres*.

14.6.2. Medicinal products

Note: This botanical could be present in any European countries where traditional Oriental herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Oriental formulations that contain this botanical could include:

- Gan Lu Yin
- Ning Sou Wan [Fritillaria & Platycodon Formula]

- Shi hu ye guang wan [Dendrobium Pill for Night Vision]



Product name: Gan Yu Lin

European marketer: AcuGraph Europe
Dublin, Ireland
http://acugrapheurope.com/Gan-Lu-Yin--200g?filter_name=Gan%20lu%20yin

Ingredients: Artemisia capillaris, Asparagus cochinchinensis, Citrus aurantium, **Dendrobium chrysotoxum or Dendrobium nobile**, Eriobotrya japonica, Glycyrrhiza uralensis, Ophiopogon japonicas, Rehmannia glutinosa, Scutellaria baicalensis.

15. *Dendrobium fimbriatum*

Botanical name: *Dendrobium fimbriatum* Hook.

Synonyms: *Callista oculata* (Hook.) Kuntze
Dendrobium hawkesii Heller
Dendrobium paxtonii Paxton
Dendrobium vagans Gagnep.

Chinese name: 流苏石斛 [liu su shi hu]

15.1. Countries of origin

According to Flora of China, this species is epiphytic on tree trunks in dense forests and lithophytic on damp rocks in mountain valleys at altitudes of 600 to 1700 m. in the Chinese Provinces of (northwestern to southern) Guangxi (Guangxi Zhuang Autonomous Region), (southern) Guizhou, and (southern) Yunnan.³⁴

According to the UNEP-WCMC SPECIES+ database, outside of the PRC this species occurs in Bhutan, India, Lao People's Democratic Republic, Malaysia, Myanmar, Nepal and Thailand.³⁵

15.2. Commercially traded forms

15.2.1. *Dendrobii Caulis* - 石斛 – shihu - (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): *Dendrobium* is the fresh or dried stem of **cultivated species** of *Dendrobium nobile* Lindl., *Dendrobium chrysotoxum* Lindl. or *Dendrobium fimbriatum* Hook. and similar species from same genus (Fam. Orchidaceae). The drug is collected in all the year round. For the fresh stem, removed from root and soil; and for the dried stem, removed from foreign matter, treated with boiling water for a moment or baked gently to soften, then rubbed while baking or sun drying to remove the leaf sheath, and dried.³⁶

HS Code: HS 1211.90 (WCO).

Selected European marketers of this ingredient:

Complemedis – Ihre Apotheke für chinesische Heilmittel

Leinfeldstrasse 59

CH-4632 Trimbach, Schweiz

<http://www.complemedis.ch/produkte/sortiment/205-produkte/7-produkteliste>

HerbaSinica Hilsdorf GmbH

Penzendorfer Str. 12

D- 91126 Rednitzhembach, Deutschland

<http://herbasinica.de/>

³⁴ *Dendrobium fimbriatum*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028638

³⁵ *Dendrobium fimbriatum*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/25502/distribution

³⁶ *Dendrobii Caulis*. In: Pharmacopoeia of the People's Republic of China, English Edition. 2010.

15.3. Selected finished products possibly in the European market

15.3.1. Medicinal products

Note: This botanical could be present in any European countries where traditional Oriental herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Oriental formulations that contain this botanical could include:

- Gan Lu Yin
- Ning Sou Wan [Fritillaria & Platycodon Formula]
- Shi hu ye guang wan [Dendrobium Pill for Night Vision]

16. *Dendrobium huoshanense*

Botanical name: *Dendrobium huoshanense* C.Z.Tang & S.J.Cheng

Synonyms: According to Flora of China, *Dendrobium huoshanense* is a synonym of *Dendrobium catenatum* Lindley

Chinese name: 黄石斛 [huang shi hu]

16.1. Countries of origin

According to Flora of China, *Dendrobium catenatum* (syn. *D. huoshanense*) is lithophytic in moderately damp mountains at altitude of about 1600 m. in Chinese Provinces of (southwestern) Anhui (Dabie Shan), (western) Fujian (Ninghua), (northwestern) Guangxi (Tian'e), Sichuan, Taiwan, (southeastern) Yunnan, and (eastern) Zhejiang (Tiantai, Xianju, Yinxian). Outside of China it occurs in Japan.³⁷

According to UNEP-WCMC SPECIES+ database, *D. huoshanense* occurs only in China.³⁸

There are recent data on techniques for rapid propagation from researchers at Chinese orchid conservation and research centres.³⁹

16.2. Commercially traded forms

16.2.1. *Dendrobium huoshanense* Leaf/Stem Extract (CosIng)

Description: *Dendrobium huoshanense* Leaf/Stem Extract is the extract of the leaves and stems of *Dendrobium huoshanense*, Orchidaceae.

INCI Name: *Dendrobium huoshanense* Leaf/Stem Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Bleaching component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

Note: One of the main suppliers of this ingredient is in South Korea, Kimex Co., Ltd.:
<http://www.kimex.co.kr/>

16.3. Selected finished products in the European market

Unable to identify any finished products in the European market that contain this ingredient.

³⁷ *Dendrobium catenatum*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=242317237

³⁸ *Dendrobium huoshanense*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/28791/distribution

³⁹ Liu ZJ et al. Recent Developments in the Study of Rapid Propagation of *Dendrobium catenatum* Lindl. with a Discussion on its Scientific and Chinese Names. *Plant Science Journal*. 2011;29(6):763-772: <http://www.whzwxj.cn/EN/abstract/abstract1838.shtml#>

17. *Dendrobium moniliforme*

Botanical name: *Dendrobium moniliforme* (L.) Sw.

Synonyms:⁴⁰ *Callista japonica* (Blume) Kuntze
Callista moniliformis Rolfe
Dendrobium castum (L.) Bateman ex Hook.f.
Dendrobium catenatum Lindl.
Dendrobium japonicum Lindl.
Dendrobium monile (Thunb.) Kraenzl.
Dendrobium zonatum Rolfe
Epidendrum monile Thunb.
Epidendrum moniliferum Panzer
Epidendrum moniliforme L.
Onychium japonicum Blume
Ormostema albiflora Raf.
Ormostema purpurea Raf.

Chinese name: 细茎石斛 [xi jing shi hu]

Korean name: 석곡 [seok gok]

17.1. Countries of origin

According to Flora of China, this species is epiphytic on tree trunks in broad-leaved forests and lithophytic on rocks in forests and cliffs in valleys at altitudes of 600 to 3000 m. in Chinese Provinces of (southwestern) Anhui, (northern and southeastern) Fujian, (southern) Gansu, (northern and southwestern) Guangdong, (northern) Guangxi (Guangxi Zhuang Autonomous Region), (eastern) Guizhou, Henan, Hunan, Jiangxi, Shaanxi, (southern) Sichuan, (northwestern to southeastern) Yunnan, (northern) Zhejiang, and Taiwan.⁴¹ Outside of China, this species occurs in Bhutan, (northeastern) India, Japan, South Korea, Myanmar, Nepal, and (northern) Vietnam.

There are published reports of artificial propagation⁴² as well as *in vitro* seed germination and mass propagation.⁴³

17.2. Commercially traded forms

17.2.1. *Dendrobium Moniliforme* Callus Culture Extract (CosIng)

Description: *Dendrobium Moniliforme* Callus Culture Extract is the extract of a culture of the callus of *Dendrobium moniliforme*, Orchidaceae.

INCI Name: *Dendrobium Moniliforme* Callus Culture Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

⁴⁰ *Dendrobium moniliforme* synonyms. In: UNEP-WCMC SPECIES+:

http://speciesplus.net/#/taxon_concepts/18967/names

⁴¹ *Dendrobium moniliforme*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028647

⁴² Choi SK, Lee DK. The study on the artificial propagation of *dendrobium moniliforme* in wild medicinal herb. *Research Reports of the Rural Development Administration (suweon)*.1989;31(3 Upland Ind. Crops);52-56: <http://eurekamaq.com/research/007/938/007938361.php#close>

⁴³ Lo SF et al. In Vitro Seed Germination and Mass Propagation of *Dendrobium moniliforme*, a Native Species in Taiwan:

http://tao.wordpedia.com/show_pdf.ashx?sess=3e5sxii2l2icdc55r0ekhn45&file_name=JO00001415_57-4_295-304&file_type=r

EC#: None stated in CosIng database.
HS Code: HS 1302.19 (WCO)
Functions: Skin-conditioning component of cosmetic products.

Note: One of the main suppliers of this ingredient is in South Korea, Bio-FD&C Co., Ltd.:
<http://www.biofdnc.com/main/main.html>

17.2.2. Dendrobium Moniliforme Leaf/Stem Extract (CosIng)

Description: Dendrobium Moniliforme Leaf/Stem Extract is the extract of the leaves and stems of *Dendrobium moniliforme* (L.), Orchidaceae.

INCI Name: Dendrobium Moniliforme Leaf/Stem Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Bleaching component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

Note: One of the main suppliers of this ingredient is in South Korea, Kimex Co., Ltd.:
<http://www.kimex.co.kr/>

17.3. Selected finished products possibly in the European market

17.3.1. Cosmetic products

Unable to identify any finished products in the European market that contain this ingredient. Here below is an example of an American product that contains an extract of this botanical species.



Product name: Osafume

Marketer: Olympic Orchids
21115 Elberta Rd. #1, Lynnwood, Washington 98036 USA
http://www.orchidscents.com/productinfo_v3.aspx?productid=OSAF-02

Ingredients: Website states the following: A delicate, summery scent inspired by a dainty miniature **Japanese orchid, *Dendrobium moniliforme***. Anise and magnolia combine with heliotrope, vanilla, and white musk to make this light, airy fragrance.

18. *Dendrobium nobile*

Botanical name: *Dendrobium nobile* Lindley

Synonyms: *Callista nobilis* (Lindl.) Kuntze
Dendrobium coerulescens Wall.
Dendrobium formosanum (Rchb.f.) Masamune
Dendrobium friedericksianum auct. non Rchb.f.
Dendrobium lindleyanum Griff.

Chinese name: 石斛 [shi hu]

Korean name: 석곡, 두란 [sokkok]

18.1. Countries of origin

According to Flora of China, *Dendrobium nobile* is epiphytic on tree trunks in mountain forests and lithophytic on rocks in mountain valleys at altitudes of 500 to 1700 m. in Chinese provinces and regions of (northeastern to western) Guangxi (Guangxi Zhuang Autonomous Region), Guizhou, Hainan (Baisha), Hong Kong Special Administrative Region (SAR), (western) Hubei (Yichang), (southern) Sichuan, (southeastern) Xizang (Tibet Autonomous Region), and Yunnan.⁴⁴

Outside of the PRC, this species occurs in Bhutan, India, Lao People's Democratic Republic, Myanmar, Nepal, (northern) Thailand, Vietnam, and Taiwan Province of China.⁴⁵

18.2. Commercially traded forms

18.2.1. *Dendrobii Herba* / 석곡, 두란 / sokkok (KHP)

Source: Korean Herbal Pharmacopoeia (KHP): *Dendrobii Herba* is the aerial part of *Dendrobium nobile* Lindley (Orchidaceae), and other species of same genus.

Description: *Dendrobii Herba* is cylindrical, 20 ~ 40 cm long, and 4 ~ 6 mm in diameter; the inter-node, 25 ~ 30 mm long. The outer surface is golden yellow ~ yellowish green with longitudinal deep grooves. The texture is hard and brittle. It is almost odourless, and tastes slightly bitter.⁴⁶

HS Code(s): HS 1211.90 (WCO).

18.2.2. *Dendrobii Caulis* / 石斛 / shihu (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): *Dendrobium* is the fresh or dried stem of **cultivated species of *Dendrobium nobile* Lindl., *Dendrobium chrysotoxum* Lindl. or *Dendrobium fimbriatum* Hook.** and similar species from same genus (Fam. Orchidaceae). The drug is collected in all the year round. For the fresh stem, removed from root and soil; and for the dried stem, removed from foreign matter, treated with boiling water for a moment or baked gently to soften, then rubbed while baking or sun drying to remove the leaf sheath, and dried.⁴⁷

⁴⁴ *Dendrobium nobile*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028648

⁴⁵ *Dendrobium nobile*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/17714/distribution

⁴⁶ Korea Food and Drug Administration (KFDA). *Dendrobii Herba*. In: Korean Herbal Pharmacopoeia, 4th Edition (KHP IV). Seoul, South Korea: KFDA. 2002.

⁴⁷ *Dendrobii Caulis*. In: Pharmacopoeia of the People's Republic of China, English Edition. 2010.

HS Code(s): HS 1211.90 (WCO).



品名：石斛 [Product: Dendrobium]

拉丁名：Dendrobii Caulis [Latin name: Dendrobii Caulis]

产新时间：二月,三月 [Harvest period: February, March]

产区分布：贵州,云南 [Production areas: Guizhou and Yunnan]

Image source: <http://www.zyctd.com/exchange-priceItem-526-1-0.html>

Selected European marketers of this ingredient:

Complemedis – Ihre Apotheke für chinesische Heilmittel

Leinfeldstrasse 59

CH-4632 Trimbach, Schweiz

<http://www.complemedis.ch/produkte/sortiment/205-produkte/7-produkteliste>

HerbaSinica Hilsdorf GmbH

Penzendorfer Str. 12

D- 91126 Rednitzhembach, Deutschland

<http://herbasinica.de/>

18.2.3. Dendrobium Nobile Extract (CosIng)

Description: Dendrobium Nobile Extract is the extract of the whole plant, *Dendrobium nobile*, Orchidaceae.

INCI Name: Dendrobium Nobile Extract.

CAS #: 2115-91-5

EC #: None stated in CosIng database.

HS Code(s): HS 1302.19 (WCO)

Functions: Skin conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

18.2.4. Dendrobium Nobile Standardized Extract, 1% Total Alkaloids

Description: Powdered extract of the dried stem of *Dendrobium nobile* standardized to contain not-less-than 1% total alkaloids.

CAS #: 2115-91-5

HS Code(s): HS 1302.19 (WCO)

Functions: Component of dietary supplement products and/or herbal medicinal products.

18.3. Selected finished products possibly in European market

18.3.1. Cosmetic products



Product name: MISA GEUMSUL SKIN TONER

European marketer: Missha.cz

ATLANT SNAB - Moravia s.r.o., Popovická 905

66442 Modřice, Czech Republic

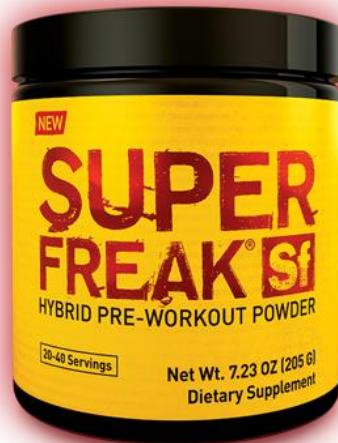
http://www.missha.cz/index.php?route=product/product&filter_name=Geum+Sul&product_id=257

Ingredients:

Ginseng Root Water, Glycerin, Ethanol, Propanediol, Panax Ginseng Root Extract, PEG/PPG-17/6 Copolymer, Cetyl Ethylhexanoate, Betaine, Polysorbate 60, Butylene Glycol, Polyacrylate-13, Polyisobutene, Adenosine, Dimethicone, PEG-2M, Polysorbate 20, Sorbitan Isostearate, Hydrogenated Lecithin, Sucrose Distearate, Polyglutamic Acid, Linaria Japonica Extract, Cocoa Seed Extract, Hydrolyzed Hyaluronic Acid, Gold, Sodium Hydroxide, Asparagus Cochinchinensis Root Extract, Pueraria Lobata Root Extract, Morus Alba Fruit Extract, Diospyros Kaki Leaf Extract, Cinnamomum Cassia Bark Extract, Artemisia Princeps Leaf Extract, Chrysanthemum Indicum Extract, Camellia Sinensis Leaf Extract, Saponaria Officinalis Extract, Angelica Korean Root Extract, Turmeric Root Extract, Ginger Root Extract, Chestnut Seed Extract, Ipomoea Hederacea Seed Extract, Trichosanthes Kirilowii Root Extract, Agastache Rugosa Extract, Lycium Chinense Fruit Extract, Platycodon Grandiflorum Root Extract, Radish Seed Extract, Angelica Gigas Root Extract, Codonopsis Tangshen Root Extract, Zizyphus Jujuba Fruit Extract, Eucommia Ulmoides Leaf Extract, Chaenomeles Sinensis Fruit Extract, Akebia Quinata Stem Extract, Saussurea Lappa Root Extract, Commiphora Abyssinica Resin Extract, Honey Extract, Pinellia Ternata Root Extract, Saposhnikovia Divaricata Root Extract, Sandalwood Extract, Atractylodes Japonica Rhizome Extract, Lilium Candidum Bulb Extract, Curcuma Zedoaria Root Extract, Codonopsis Lanceolata Root Extract, Dioscorea Japonica Root Extract, Coltsfoot Flower Extract, **Dendrobium Nobile Extract**, Acorus Gramineus Root/Stem Extract, Asarum Sieboldi Root Extract, Cimicifuga Dahurica Root Extract, Bupleurum Chinensis Root Extract, Nelumbo Nucifera Seed Extract, Mushroom Extract, Acanthopanax Sessiliflorum Bark Extract, Lindera Strychnifolia Root Extract, Polygonatum Officinale Rhizome/Root Extract, Achyranthes Bidentata Root Extract, Polygala Tenuifolia Root Extract, Laminaria Japonica Extract, Coix Lacryma-Jobi Ma-yuen Seed Extract, Perilla Frutescens Leaf Extract,

Anthriscus Sylvestris Extract, Clover Flower Extract, Anemarrhena Asphodeloides Root Extract, Poncirus Trifoliata Fruit Extract, Citrus Unshiu Peel Extract, Atractylodes Chinensis Rhizome Extract, Allium Fistulosum Root Extract, Gardenia Florida Fruit Extract, Aquilaria Agallocha Stem Extract, Alisma Orientale Tuber Extract, Psoralea Corylifolia Fruit Extract, Cyperus Rotundus Root Extract, Scrophularia Buergeriana Root Extract, Corydalis Turtschaninovii Root Extract, Daemonorops Draco Extract, Scutellaria Baicalensis Root Extract, Fennel Fruit Extract, Magnolia Obovata Bark Extract, Safflower Flower Extract, Papaver Rhoeas Extract, Pueraria Thunbergiana Extract, Hibiscus Sabdariffa Flower Extract, Cnidium Officinale Root Extract, Rehmannia Chinensis Root Extract, Polygonum Multiflorum Root Extract, Ophiopogon Japonicus Root Extract, Paeonia Albiflora Root Extract, Portulaca Oleracea Extract, Velvet Extract, Poria Cocos Extract, Licorice Extract, Wheat Flour Extract, Sesame Seed Oil, Ardisia Crispa Extract, Euphorbia Supina Extract, Phaseolus Radiatus Seed Extract, Angelica Keiskei Extract, Ginkgo Biloba Leaf Extract, Orchid Root Extract, Coptis Chinensis Root Extract, Houlttuynia Cordata Extract, Acorus Calamus Root Extract, Pumpkin Fruit Extract, Titanium Dioxide, Mica, Iron Oxides, Arginine, Carbomer, Disodium EDTA, Caprylyl Glycol, Caprylhydroxamic Acid, Phenoxyethanol, 1,2-Hexanediol, Fragrance.

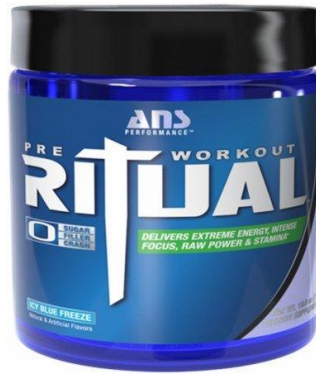
18.3.2. Food supplement products



Product name: Super Freak® Sf

European marketer: Body Temple Limited
Unit 4a Crown Road, Festival Trade Park
Stoke on Trent, ST1 5NJ UNITED KINGDOM
<http://www.bodytemple.co.uk/contact-us>

Ingredients: Astragalus membranaceus root, **Dendrobium nobile stem**, Eleutherococcus senticosus root, Mentha x piperita leaf oil, Olea europaea leaf, Panax notoginseng root, Rhodiola rosea root.



Product name: Ritual, Icy Blue Freeze

European marketer: Amazon.co.uk

http://www.amazon.co.uk/Ritual-Icy-Blue-Freeze-Performance/dp/B00K4Y1RIG/ref=sr_1_8?ie=UTF8&qid=1405550819&sr=8-8&keywords=Dendrobium+nobile

Ingredients: Per serving: Vitamin B12 (as Cyanocobalamin) 150 mcg Vitamin C (as Ascorbic Acid) 100 mg L-Citrulline 1500 mg Beta Alanine 1600 mg CreaPure Creatine Monohydrate (Micronized) 1500 mg Trimethylglycine (Betaine Anhydrous) 1250 mg AgmaPure Agmatine Sulfate 500 mg Styphnolobium Japonicum Extract 100 mg Performance Protocol Complex 688 mg N-Acetyl-L-Tyrosine, DN1000 (**Dendrobium Nobile Extract**), Caffeine Anhydrous, B-Phenylethylamine HCl, Hordenine HCl, Higenamine HCl, AstraGin (Astragalus Membranaceus and Panax Notoginseng Extract).

18.3.3. Medicinal products

Note: This botanical could be present in any European countries where traditional Oriental herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Oriental formulations that contain this botanical could include:



■ **Shi Hu Ming Mu Jin Shi Wan** [Caulis Dendrobii Myopia Pills]

Active ingredients: Magarite, **Caulis Dendrobii**, Bear's gallbladder, antelope horn, Cornus officinalis, Rehmannia glutinosa, Chrysanthemum, Fructus Lycii, Poria, Rhizoma Batatatis, Cortex Moutan Radicis.



■ **Kunbao Wan**

Active Ingredients: Adenophora triphylla, Anemarrhena asphodeloides, Angelica polymorpha, Chrysanthemum sinense, Cuscuta europaea, Cynanchum atratum, **Dendrobium nobile**, Eclipta prostrata, Fallopia japonica, Hordeum vulgare, Ligustrum lucidum, Lycium barbarum, Lycium chinense, Morus.

19. *Dendrobium officinale*

Botanical name: *Dendrobium officinale* Kimura & Migo

Synonyms: According to Flora of China, *Dendrobium officinale* is a synonym of *Dendrobium catenatum* Lindley.
According to AHPA Herbs of Commerce Second Edition, *Dendrobium candidum* Wall. ex Lindl. Is a synonym of *Dendrobium officinale*.

Chinese name(s): 黄石斛 [huang shi hu]
铁皮石斛 [tie pi shi hu]

19.1. Countries of origin

According to Flora of China, *Dendrobium catenatum* (syn. *D. officinale*) is lithophytic in moderately damp mountains at an altitude of about 1600 m. in the Provinces of (southwestern) Anhui (Dabie Shan), (western) Fujian (Ninghua), (northwestern) Guangxi (Guangxi Zhuang Autonomous Region), Sichuan, Taiwan, (southeastern) Yunnan, and (eastern) Zhejiang (Tiantai, Xianju, Yinxian).⁴⁸

He et al (2009) reported on resource destruction due to over-collection but also report on reproduction by clonal propagation.⁴⁹ There are also Chinese patents for efficient propagation methods for this species:⁵⁰

19.2. Commercially traded forms

19.2.1. *Dendrobii Officinalis Caulis* – tie pi shi hu - (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): *Dendrobium* Stem is the dried stem of *Dendrobium officinale* Kimura et Migo (Fam. Orchidaceae). The drug is collected from November to the following March, removed from foreign matter, trimmed off some fibrous roots, twisted to a spiral or spring form while heating, and baked to dryness, known as "Tiepifengdou" (Erhuanshihu, earring-like *Dendrobium*); or cut into sections, then dried or baked to dryness at a low temperature, known as "Tiepishihu".⁵¹

HS Code(s): HS 1211.90 (WCO).

19.3. Selected finished products in the European market

19.3.1. Medicinal products

Note: This botanical could be present in any European countries where traditional Oriental herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

⁴⁸ *Dendrobium catenatum*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=242317237

⁴⁹ He P et al. [Reproductive biology of *Dendrobium officinale* (Orchidaceae) in Danxia landform]. *Zhongguo Zhong Yao Za Zhi*. 2009 Jan;34(2):124-127.

⁵⁰ Patent CN 103609445 A: Efficient propagation method of *Dendrobium officinale*:

<http://www.google.com/patents/CN103609445A?cl=en>

⁵¹ *Dendrobii Caulis*. In: Pharmacopoeia of the People's Republic of China, English Edition. 2010.

20. Dendrobium phalaenopsis

Botanical name: *Dendrobium phalaenopsis* Fitzgerald

Synonyms: *Callista phalaenopsis* (Fitzg.) Kuntze

English name: Cooktown orchid⁵²

20.1. Countries of origin

According to UNEP-WCMC SPECIES+, this species occurs only in Australia.⁵³

D. phalaenopsis is cultivated in Australia and elsewhere (including England) and has become the most widely used *Dendrobium* species in hybridization.⁵⁴

20.2. Commercially traded forms

20.2.1. Dendrobium Phalaenopsis Flower Extract (CosIng)

Description: Dendrobium Phalaenopsis Flower Extract is an extract of the flowers of *Dendrobium phalaenopsis*, Orchidaceae.

INCI Name: Dendrobium Phalaenopsis Flower Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

Alban Muller International

8 rue Charles Pathé

94300 Vincennes – France

<http://www.albanmuller.com/english/cosmetique/AMI-Natural-Cosmetics-Ingredients.pdf>

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

Worlée-Chemie GmbH

Grusonstrasse 22, D-22113 Hamburg

<http://www.worlee.de/kosmetik/de/produkte/produktsuche/?q>

20.3. Selected finished products possibly in the European market

20.3.1. Cosmetic products

⁵² Australian National Botanic Gardens. Cooktown orchid (*Dendrobium phalaenopsis*): <http://www.anbg.gov.au/emblems/qld.emblem.html>

⁵³ *Dendrobium phalaenopsis*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/14266/distribution

⁵⁴ Dendrobium Species Culture. *Orchids*. 1996;65(11):1190-1195: http://www.orchidculture.com/COD/FREE/Den_Art.html



Product name: Le Fond de teint Clair - Certifié bio

European marketer: Avril Beute
Microcosme SAS
32, rue Rémy Cogghe - 59100 Roubaix – France
<http://www.avril-beaute.fr/>

Ingredients: Aqua, Caprylic/Capric Triglyceride, Dicaprylyl Carbonate, Simmondsia Chinensis Seed Oil*, Glycerin, Glyceryl Stearate, Alcohol, Lauryl Laurate, Polyglyceryl-2 Dipolyhydroxystearate, Microcrystalline Cellulose, Benzyl Alcohol, Sodium Stearoyl Glutamate, Helianthus Annuus Seed Oil, Glyceryl Caprylate, Xanthan Gum, Parfum, Medicago Sativa Extract*, Silica, Tocopherol, Cellulose Gum, Dehydroacetic Acid, Sodium Phytate, Sodium Chloride, Sodium Benzoate, **Dendrobium Phalaenopsis Flower Extract**, Citric Acid, Sodium Hydroxide, +/- CI 77491, CI 77492, CI 77499, CI 77891.



Product name: Alissi Bronte Serenity Orchid Cream

European marketer: ALISSI BRONTË

Camino de Las Bronte s/n - 30120 El Palmar - Murcia - (Spain)

<http://www.alissibronte.com/productDetail.php?p=SER01075>

Ingredients:

Water, Caprylic/capric Triglyceride, Cetearyl Alcohol, Potassium Palmitoyl Hydrolyzed Wheat Protein, Glyceryl Stearate, Glycerin, Aloe Barbadensis (Aloe) Leaf Extract, Ethylhexyl Methoxycinnamate, Chamomilla Recutita (Matricaria) Flower Extract, Tilia Vulgaris (Linden) Flower Extract, Urea, Butyl Methoxydibenzoylmethane, Hypericum Perforatum (St. John's Wort) Extract, Vitis Vinifera (Grape) Leaf Extract, Ruscus Aculeatus (Butcher's broom) Root Extract, Calendula Officinalis (Calendula) Flower Extract, **Dendrobium Phalaenopsis (Orchid) Flower Extract**, Chondrus Crispus (Carrageenan) Extract, Crithmum Maritimum Extract, Allantoin, Bisabolol, Ginkgo Biloba Seed Extract, Triethanolamine, Dehydroacetic Acid, Benzoic Acid, Sorbic Acid, Benzyl Alcohol, Chamomilla Recutita (Matricaria) Flower Oil, C.I. 77007 (Pigment Blue 29), Limonene, Linalool, Geraniol, Citronellol, Hexyl Cinnamal, Farnesol. *Natural Components of Essential Oils.

21. *Gastrodia elata*

Botanical name: *Gastrodia elata* Blume

Synonyms: None reported in UNEP-WCMC SPECIES+ database.

Chinese name: 天麻 [tian ma]

Japanese name: テンマ [tenma]

Korean name: 천마 [ch'onma]

21.1. Countries of origin

According to MAPROW Species Data Fact Sheet, *Gastrodia elata* occurs in Asia from the Himalayas over to the Russian Far East and to Japan. This includes: Democratic People's Republic of Korea, Federal Democratic Republic of Nepal, Japan, Kingdom of Bhutan, People's Republic of China, Republic of China (Taiwan), Republic of India, Republic of Korea and Russian Federation.

According to **Flora of China**, *Gastrodia elata* is also widely cultivated for its tubers (*tianma*) that are used in Traditional Chinese Medicine (TCM).⁵⁵

21.2. Commercially traded forms

21.2.1. *Gastrodiae Herba* - 적전, 적전지 (KHP)

Source: Korean Herbal Pharmacopoeia (KHP): The aerial part of *Gastrodia elata* Blume (Orchidaceae).

Description: *Gastrodiae Herba* is cylindrical, reddish brown ~ brown, 60 ~ 100 cm long, and 7 ~ 15 mm in diameter. The leaf is degenerated, scale-shaped, 1 ~ 2 cm long, and revealed with the fine veins. The flower is of raceme and 10 ~ 30 cm long with the 2 ~ 3 mm long pedicel. The capsule is elliptic ~ obovate with numerous powdery seeds. It is odourless and tasteless.⁵⁶

HS Code: HS 1211.90 (WCO)

21.2.2. *Gastrodia Rhizoma* (KP)

Source: Korean Pharmacopoeia (KP): Caulis et rhizoma of *Gastrodia elata* Blume (Orchidaceae).

Description: *Gastrodia Rhizoma* is somewhat tortuous caulis, flat-shaped cylindrical to a long fusiform, 5 to 15 cm in length, 2 to 5 cm in width and 1 to 2 cm in thickness. External surface is light yellowish white to yellow-brown, with irregularly longitudinal wrinkles, and ring nodes. The texture is hard, and fractured surface is yellow-brown to black-brown, lustrous, and horny. Under a microscope, a transverse section reveals fine needles of calcium oxalate in parenchyma cells. *Gastrodia Rhizoma* has slight odour and sweet taste.⁵⁷

HS Code(s): HS 1211.90.22 (CCCCS: Commodity Classification for China Customs Statistics) and HS 1211.90.3800 (CCC: Standard Classification of Commodities of the Republic of China).

⁵⁵ Chen X., et al. *Gastrodia elata* Blume, Mus. Bot. 2: 174. 1856. In: *Flora of China*, 2009; Vol. 25, Page 202.

⁵⁶ Korea Food and Drug Administration (KFDA). *Gastrodiae Herba*. In: *Korean Herbal Pharmacopoeia*, 4th Edition (KHP IV). Seoul, South Korea: KFDA. 2002.

⁵⁷ Korea Food and Drug Administration (KFDA). *Gastrodia Rhizoma*. In: *Korean Pharmacopoeia*, 9th Edition. Seoul, South Korea: KFDA. 2007.

21.2.3. Rhizoma Gastrodiae - 天麻 (HKCMMS)

Source: Hong Kong Chinese Materia Medica Standards (HKCMMS): Rhizoma Gastrodiae is the dried tuber of *Gastrodia elata* Bl. (Orchidaceae). The tuber is collected from winter to spring, washed clean immediately, steamed thoroughly, spread out and dried at a temperature not more than 60°C to obtain Rhizoma Gastrodiae.⁵⁸

Description: Ellipsoid or spat-shaped, slightly compressed, shrunken and somewhat curved, 5-17 cm long, 14-43 mm wide, 5-26 mm thick. Externally yellowish-white to pale yellowish-brown, with longitudinal wrinkles and many transverse annulations arranged along latent buds, brown thread sometimes visible. Apex with reddish-brown to deep brown parrot-beak-shaped buds or remains of stem; the lower end with a rounded scar. Texture hard and uneasily broken, fracture fairly even, yellowish-white to brownish, horny. Odour slight; taste sweetish.

HS Code(s): HS 1211.90.22 (CCCCS) and HS 1211.90.3800 (CCC).

21.2.4. Rhizoma Gastrodiae 天麻 (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): Tall Gastrodia Tuber is the dried tuber of *Gastrodia elata* Bl. (Fam. Orchidaceae). The drug is collected from winter to next spring, washed clean immediately, steamed thoroughly, spread out and dried at a low temperature.⁵⁹

HS Code(s): HS 1211.90.22 (CCCCS) / HS 1211.90.3800 (CCC).

Selected European marketers of this ingredient:

Complemedis – Ihre Apotheke für chinesische Heilmittel

Leinfeldstrasse 59

CH-4632 Trimbach, Schweiz

<http://www.complemedis.ch/produkte/sortiment/205-produkte/7-produkteliste>

HerbaSinica Hilsdorf GmbH

Penzendorfer Str. 12

D- 91126 Rednitzhembach, Deutschland

<http://herbasinica.de/>

LIAN CHINAHERB

Fürtistrasse 7

CH-8832 Wollerau

<http://www.lian.ch/>

⁵⁸ The Government of the Hong Kong Special Administrative Region (SAR), Department of Health, Chinese Medicine Division. Rhizoma Gastrodiae. In: *Hong Kong Chinese Materia Medica Standards* (HKCMMS), Volume 3. Hong Kong SAR: Government of the Hong Kong Special Administrative Region, the People's Republic of China. 2010.

⁵⁹ Chinese Pharmacopoeia Commission. Rhizoma Gastrodiae. In: *Pharmacopoeia of the People's Republic of China (English edition)*. Beijing, China: China Medical Science Press; 2010.



品名：天麻 [Common name: tianma]

拉丁名：[Pharmacopoeial name: Gastrodiae Rhizoma]

产新时间：五月,十一月,十二月 [Harvest time: May, November, December]

产区分布：安徽,湖北,陕西,四川,云南 [Production areas: hui, Hubei, Shaanxi, Sichuan, Yunnan]

Image source: <http://www.zyctd.com/exchange-priceItem-565-1-0.html>



产品名称：天麻野生 [Product name: Wild tianma]

所在地：重庆市市辖区黔江区 [Location: Chongqing Municipality in Qianjiang District]

Image source: <http://www.zyctd.com/exchange-item-988147-1-1.html>



产品名称：天麻4-5级 [Product name: tianma 4-5]

所在地：陕西省商洛市柞水县红岩寺镇 [Location: Zha Shui Xian, Shāngluò City, Shaanxi Province]

Image source: <http://www.zyctd.com/exchange-item-1484626-1-1.html>



产品名称：天麻2-3级 [Product name: tianma 2-3]

所在地：陕西省商洛市柞水县红岩寺镇 [Location: Zha Shui Xian, Shāngluò City, Shaanxi Province]

Image source: <http://www.zyctd.com/exchange-item-1484624-1-1.html>

21.2.5. Gastrodiae Tuber - テンマ (JP)

Source: Japanese Pharmacopoeia (JP): The steamed tuber of *Gastrodia elata* Blume (Orchidaceae).

Description: Gastrodia Tuber is an irregularly curved and flattened cylindrical to flattened fusiform tuber, 5 ~ 15 cm in length, 2 ~ 5 cm in diameter, 1 ~ 2 cm in thickness; externally light yellow-brown to light yellowish white; with ring nodes, and irregular longitudinal wrinkles; hard in texture; fractured surface, dark brown to yellow-brown in colour, with lustre, horny and gluey. Odour, characteristic; practically tasteless. Under a microscope, a transverse section reveals parenchyma cells containing needle raphides of calcium oxalate; starch grain absent.⁶⁰

HS Code(s): HS 1211.90.22 (CCCS) and HS 1211.90.3800 (CCC).

21.2.6. Gastrodiae Rhizoma Pulverata

Source: Powdered dried tuber of *Gastrodia elata* Bl. (Orchidaceae).

HS Code(s): HS 1211.90.22 (CCCS) and HS 1211.90.3800 (CCC).

21.2.7. Gastrodia Elata Root Extract (CosIng)

Definition: Gastrodia Elata Root Extract is an extract of the roots of the Gastrodia, *Gastrodia elata*, Orchidaceae.

INCI Name: Gastrodia Elata Root Extract

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC #: None stated in CosIng database.

HS Code(s): 1302.19 (WCO)

Functions: Skin conditioning component of cosmetic products.

Selected European marketers of this ingredient:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

⁶⁰ Japanese Ministry of Health, Labour and Welfare. Gastrodiae Tuber. In: *Japanese Pharmacopoeia* Sixteenth Edition. Tokyo, Japan: Japanese Ministry of Health, Labour and Welfare. 2011.

Note: One of the main suppliers of this extract is the South Korean company Bioland Ltd.: <http://www.biolandkorea.com/> which has distributors for its cosmetic ingredients situated in several European countries through the Safic-Alcan Groupe of companies in Belgium, France, Germany, Italy, Portugal and UK: <http://www.safic-alcan.com/en/>

21.2.8. Aspergillus/Saccharomyces/Gastrodia Elata Root Extract Ferment Filtrate

Definition: Aspergillus/Saccharomyces/Gastrodia Elata Root Extract Ferment Filtrate is the filtrate of the product obtained by the fermentation of Gastrodia Elata Root Extract by the microorganisms, Aspergillus and Saccharomyces.

INCI Name: Aspergillus/Saccharomyces/Gastrodia Elata Root Extract Ferment Filtrate

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC #: None stated in CosIng database.

HS Code: Not certain.

Functions: Skin conditioning component of cosmetic products.

Selected European marketers of this ingredient:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

21.2.9. Rhizoma Gastrodiae Extract, purified >98% gastrodin

HS Code(s): HS 1302.19 (WCO)

Description: Gastrodin, a natural phenol, is the glucoside of 4-hydroxybenzyl alcohol (gastrodigenin). It can be isolated from the rhizomes of either *Gastrodia elata* or *Galeola faberi* Rolfe (Orchidaceae), but can also be produced by biotransformation of 4-hydroxybenzaldehyde by *Datura tatula* (Solanaceae) cell cultures.⁶¹

Functions: Active component of herbal medicinal products.

Note: There are over 100 suppliers and exporters of this ingredient (or closely comparable gastrodia extracts) from the PRC listed in alibaba.com.⁶²

21.3. Selected finished products possibly in the European Market

21.3.1. Cosmetic products

⁶¹ ©2013 Guan jie Bio-Tech Co., Ltd. Rhizoma Gastrodiae Extract, 99% Gastrodin:

<http://en.gybiotech.com/standardized-herb-extract/rhizoma-gastrodiae-extract/97-rhizoma-gastrodiae-extract>

⁶² Gastrodia extract. In: Alibaba.com:

http://www.alibaba.com/trade/search?fsb=y&IndexArea=company_en&CatId=&SearchText=Gastrodia+extract

Ingredients:

Gastrodia elata bl, Aconitum Carmichaeli debx, Rehmanniae glutinosa libosch, Angelica sinensis, Achyranthis root, Cinnamomum Cassia Presl, Eucommia ulmoides oliv, Notopterygium incisum ting mss.



Product name:
Ingredients:

Tian Ma Shou Wu Pian
Gastrodia rhizome, He shou wu (*Polygonum multiflorum*)



Product name:
Ingredients:

Tou Tong Tou Feng Ling [Gastrodia Capsules]
Gastrodia (rhizome), Ligusticum wallichii (rhizome), Achyranthes (root), Foti (dried root tuber), Fragrant angelica (root), Frankincense (resin).

22. *Habenaria intermedia*

Botanical name: *Habenaria intermedia* D.Don (Fam. Orchidaceae).

Synonyms: *Kryptostoma intermedium* (D. Don) Olszewski & Szlachetko;
Ochyrorchis intermedia (D. Don) Szlachetko.⁶³

Chinese name: 大花玉凤花 [da hua yu feng hua]

Nepalese name: Riddhi

Sanskrit name: Riddhi

Note: According to Ved and Goraya (2008), a related species, *Habenaria edgeworthii* Hook.f. ex Collett, is also traded in India using the same Sanskrit name of “riddhi.”⁶⁴ It is therefore possible that Ayurvedic traditional herbal medicinal products labeled as containing “riddhi” may contain *H. edgeworthii* or *H. intermedia*.

Ved and Goraya also list the root tuber of *H. edgeworthii* as wild collected only in India for use in Ayurvedic medicines.

22.1. Countries of origin

According to the Ayurvedic Pharmacopoeia of India, *Habenaria intermedia* grows in temperate Himalayas up to 2000 m in altitude.

According to Flora of China, it occurs in forests at between 2600 to 3000 m in altitude in southern parts of Xizang (Tibet Autonomous Region) as well as in India, Kashmir and Nepal.⁶⁵

According to Flora of Pakistan, it is distributed from Pakistan eastwards to Nepal, at altitudes of between 1500 to 2500 m.⁶⁶

According to the SPECIES+ database, *H. edgeworthii* is distributed in India and Pakistan.⁶⁷ Curiously, *H. intermedia* is not listed in the SPECIES+ database.

22.2. Commercially traded forms

22.2.1. Riddhi Tuber (API)

Source: Ayurvedic Pharmacopoeia of India (API): “Riddhi” consists of dried tuber of *Habenaria intermedia* D.Don (Fam. Orchidaceae); a glabrous, small, erect, herbaceous plant found in temperate Himalayas, up to 2000 m. Commercial samples are usually processed in steam or boiling water and dried before marketing.⁶⁸

⁶³ *Habenaria intermedia*. In: *Flora of China*:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=242324350

⁶⁴ Ved DK, Goraya GS. *Demand and supply of medicinal plants in India*. National Medicinal Plants Board (NMPB), New Delhi & FRLHT, Bangalore, India. 2008.

⁶⁵ *Habenaria intermedia*. In: *Flora of China*:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=242324350

⁶⁶ *Habenaria intermedia*. In: *Flora of Pakistan*:

http://www.efloras.org/florataxon.aspx?flora_id=5&taxon_id=242324350

⁶⁷ *Habenaria edgeworthii*: http://www.speciesplus.net/#/taxon_concepts/27170/distribution

⁶⁸ Ayurvedic Pharmacopoeia Committee. *The Ayurvedic Pharmacopoeia of India*, Part I, Volume V, First Edition. New Delhi, Government of India, Ministry of Health and Family Welfare, Department of Ayurveda, Yoga-Naturopathy, Unani, Siddha & Homoeopathy (AYUSH). 2006.

HS Code: HS 1211.90 (WCO).

22.3. Selected finished products possibly in the European market

22.3.1. Medicinal products

Note: This botanical could be present in any European countries where Ayurvedic traditional herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Ayurvedic formulations that contain this botanical include:

- Asoka Ghrta
- Amrtaprasa Ghrta
- Dasamularista
- Chagaladya Ghrta

23. *Malaxis acuminata*

Botanical name: *Malaxis acuminata* D. Don (Fam. Orchidaceae)

Synonyms: *Microstylis wallichii* Lindl. (Fam. Orchidaceae)
According to Flora of China, *Malaxis acuminata* D. Don and *Microstylis wallichii* Lindley are both synonyms for *Crepidium acuminatum* (D. Don) Szlachetko.⁶⁹

Chinese name: 浅裂沼兰 [qian lie zhao lan]

Sanskrit name: Jivakah

23.1. Countries of origin

According to the SPECIES+ database, *M. acuminata* is distributed in China, India, and Indonesia.⁷⁰

Ved and Goraya (2008) list the root of this plant as wild collected only in India for use in Ayurvedic medicines.⁷¹

Flora of China states that *Crepidium acuminatum* (syn.: *Malaxis acuminata*) occurs in forests and shaded rocks along valleys at altitudes of 300 to 2100 m in Chinese Provinces of Guangdong, (southwestern) Guizhou, (southeastern) Xizang (Tibet Autonomous Region), (southern) Yunnan, and Taiwan.

Also according to Flora of China, this species occurs outside of China in Bhutan, Cambodia, India, Indonesia, Laos, Myanmar, Nepal, Philippines, Thailand, Vietnam, and Australia.

23.2. Commercially traded forms

23.2.1. Jivakah Pseudo Bulb (API)

Source: Ayurvedic Pharmacopoeia of India (API): “Jivakah” consists of dried and fresh pseudo-bulb of *Malaxis acuminata* D. Don syn. *Microstylis wallichii* Lindl. (Fam. Orchidaceae), a short stemmed terrestrial herb up to 25 cm in height, distributed throughout India on hills at an altitude of 2000 to 3000 m.⁷²

HS Code: Unable to determine.

24.3. Selected finished products possibly in the European market

24.3.1. Medicinal products

Note: This botanical could be present in any European countries where Ayurvedic traditional herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Ayurvedic formulations that contain this botanical include:

⁶⁹ *Crepidium acuminatum*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=250092617

⁷⁰ *Malaxis acuminata*: http://www.speciesplus.net/#/taxon_concepts/26155/distribution

⁷¹ Ved DK, Goraya GS. *Demand and supply of medicinal plants in India*. National Medicinal Plants Board (NMPB), New Delhi & FRLHT, Bangalore, India. 2008.

⁷² Ayurvedic Pharmacopoeia Committee. *The Ayurvedic Pharmacopoeia of India*, Part I, Volume V, First Edition. New Delhi, Government of India, Ministry of Health and Family Welfare, Department of Ayurveda, Yoga-Naturopathy, Unani, Siddha & Homoeopathy (AYUSH). 2006.

- Amrtaprasa Ghrta
- Bala Taila
- Brahma Rasayana
- Brhat Asvagandha Ghrta
- Chyawanprash (also spelled Cyavanaprasa)
- Dasamularista
- Dhanvantara Taila
- Guducyadi Taila
- Manasamitra Vataka
- Sivagutika.



Product name: Arya Vaidya Sala Kottakal Valiya Narayanatailam Mahanarayan Tailam 200ml Ayurvedic Pain Massage Oil

European marketer: Ayur Organics & Herbs UK
<http://www.amazon.co.uk/Kottakal-Narayanatailam-Mahanarayan-Ayurvedic-Massage/dp/B00F1GXU28>

Ingredients: Vilva (*Aegle marmelos*) 0.778 g, Asvagandha (*Withania somnifera*) 0.778 g, Brihati (*Solanum indicum*) 0.778 g, Svadamshttra (*Tribulus terrestris*) 0.778 g, Syonaka (*Oroxylum indicum*) 0.778 g, Vatyalaka (*Sida rhombifolia* ssp.*retusa*) 0.778 g, Paribhadra (*Erythrina variegata*) 0.778 g, Kathilla (*Boerhaavia diffusa*) 0.778 g, Ksudra (*Solanum xanthocarpum*) 0.778 g, Atibala (*Sida rhombifolia*) 0.778 g, Agnimantha (*Premna corymbosa*) 0.778 g, Sarani (*Merremia tridentate*) 0.778 g, Patali (*Stereospermum colais*) 0.778 g, Ajadugdha Goat's milk 10.00 ml, Satavari (*Asparagus racemosus*) 10.00 ml, Taila *Sesamum indicum* 10.00 ml, Rasna (*Alpinia galanga*) 0.019 g, Asvagandha (*Withania somnifera*) 0.019 g, Misi (*Anethum graveolens*) 0.019 g, Daru (*Cedrus deodara*) 0.019 g, Salaparni (*Desmodium gangeticum*) 0.019 g, Prisiniparni (*Pseudarthria viscida*) 0.019 g, Mashaparni (*Vigna radiata* var. *sublobata*) 0.019 g, Mudgaparni (*Vigna pilosa*) 0.019 g, Kesara (*Mesua ferrea*) 0.019 g, Sindhuttha Rock salt 0.019 g, Rajani (*Curcuma longa*) 0.019 g, Saileya (*Parmelia perlata*) 0.019 g, Chandana (*Santalum album*) 0.019 g, Pushkara (*Inula racemosa*) 0.019 g, Ela (*Elettaria cardamomum*) 0.019 g, Ugra (*Acorus calamus*) 0.019 g, Yashti (*Glycyrrhiza glabra*) 0.019 g, Tagara

(*Valeriana jatamansi*) 0.019 g, Abda (*Cyperus rotundus*) 0.019 g, Ambu (*Plectranthus vettiveroides*) 0.019 g, Patra (*Cinnamomum tamala*) 0.019 g, Bringa (*Eclipta alba*) 0.019 g, Kakoli (*Fritillaria roylei*) 0.019 g, Kshirakakoli (*Lilium polyphyllum*) 0.019 g, Meda (*Polygonatum cirrhifolium*) 0.019 g, Mahameda (*Polygonatum verticillatum*) 0.019 g, **Jivaka (*Malaxis acuminata*)** 0.019 g, Edavaka (*Malaxis muscifera*) 0.019 g, Hridhhi (*Habenaria edgeworthii*) 0.019 g, Vriddhi (*Habenaria intermedia*) 0.019 g, Vacha (*Acorus calamus*) 0.019 g, Palasa (*Butea monosperma*) 0.019 g, Sthauneya (*Casuarina equisetifolia*) 0.019 g, Vrscivaka (*Boerhaavia verticillata*) 0.019 g, Karpura (*Dryobalanops aromatica*) 0.019 g, Kasmira (*Crocus sativus*) 0.019 g.

25. *Neofinetia falcata*

Botanical name: *Neofinetia falcata* (Thunb.) Hu

Synonyms: *Aerides thunbergii* Miq.⁷³

Chinese name: 风兰 [feng lan]

25.1. Countries of origin

According to Flora of China, this species is epiphytic on tree trunks in forests at altitudes of 1500 to 1600 m in Chinese Provinces of (northern) Fujian, (southern) Gansu, (southwestern) Hubei, (western) Jiangxi, Sichuan, and Zhejiang.⁷⁴

Outside of the PRC, it occurs in Japan and Republic of Korea (South Korea).

The material of commerce is cultivated through callus culture.⁷⁵

25.2. Commercially traded forms

25.2.1. *Neofinetia Falcata* Callus Culture Extract (CosIng)

Description: *Neofinetia Falcata* Callus Culture Extract is the extract of a culture of the callus cells of *Neofinetia falcata*, Orchidaceae.

INCI Name: *Neofinetia Falcata* Callus Culture Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

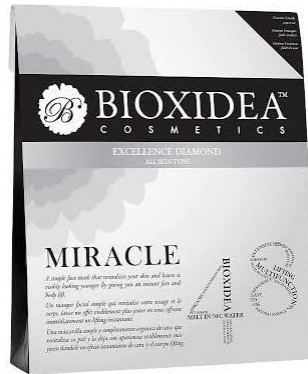
25.3. Selected finished products possibly in the European market

25.3.1. Cosmetic products

⁷³ *Neofinetia falcata*. In: UNEP-WCMC SPECIES+:
http://www.speciesplus.net/#/taxon_concepts/24807/names

⁷⁴ *Neofinetia falcata*, In: Flora of China:
http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=220009120

⁷⁵ Callus culture is a technique of plant tissue culture, usually on solidified medium and initiated by inoculation of small explants. Used as the basis for organogenic (shoot or root forming) cultures, cell cultures or proliferation of embryoids. Callus cultures can be indefinitely maintained through regular sub-culturing.



Product name: BIOXIDEA MIRACLE48™ Excellence Diamond

European marketer: Biosidea Cosmetics
101 Avenue des Champs Elysees, 75008 Paris, France
<http://www.bioxidea.com/>

Ingredients: Aqua, Glycerin, Dipropylene Glycol, Chondrus Crispus Powder, Butylene Glycol, Niacinamide, Propylene Glycol, Ceratonia Siliqua Gum, Cyamopsis, Tetragonolba Gum, Aloe Barbadensis Leaf Extract, Glucose, Potassium Chloride, Algae Extract, Fragrance, Ethylhexylglycerin, Disodium EDTA, Pearl Powder, Tocopheryl Acetate, Paraffinum Liquidum, Phenoxyethanol, Sorbic Acid, Methylisothiazolinone, Hydrolyzed Collagen, **Neofinetia Falcata Callus Culture Extract**, Acetyl Hexapeptide-8, Rosa Centifolia Flower Extract, Diamond Powder, Calcium Oxide

26. *Onychium japonicum*

Botanical name: *Onychium japonicum* (Thunberg) Kunze

Synonyms: According to UNEP-WCMC SPECIES+, *Onychium japonicum* is one of many synonyms of *Dendrobium moniliforme* (L.) Sw.⁷⁶

Chinese name: 野雉尾金粉蕨 [ye zhi wei jin fen jue]

26.1. Countries of origin

According to Flora of China, *Onychium japonicum* occurs along stream banks, roadsides, forest margins, and mountain slopes at altitudes of 200 to 2400 m in Chinese provinces and regions of Anhui, Fujian, Gansu, Guangdong, Guangxi (Guangxi Zhuang Autonomous Region), Guizhou, (western) Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shandong, Sichuan, Xizang (Tibet Autonomous Region), Yunnan, Zhejiang, and Taiwan.⁷⁷

Outside of China, it reportedly occurs in Bhutan, India, Indonesia, Japan, Korea, Myanmar, Nepal, Pakistan, Philippines, Thailand, Vietnam; and Pacific islands.

However, according to UNEP-WCMC SPECIES+ database, *Dendrobium moniliforme* (syn.: *Onychium japonicum*) occurs only in the PRC, Japan, Republic of Korea (South Korea), and Taiwan, Province of China (Republic of China).

26.2. Commercially traded forms

26.2.1. *Onychium japonicum* Extract (CosIng)

Description: *Onychium japonicum* Extract is the extract of the whole plant, *Onychium japonicum*, Orchidaceae.

INCI Name: *Onychium japonicum* Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

Note: One of the main suppliers of this ingredient is the South Korean company, Hanbul Cosmetics Co., Ltd.: <http://www.hanbul.co.kr/>

26.3. Selected finished products possibly in the European market

Unable to identify any finished products in the European market that contain this ingredient.

⁷⁶ *Dendrobium moniliforme*. In: UNEP-WCMC SPECIES+: http://www.speciesplus.net/#/taxon_concepts/18967/names

⁷⁷ *Onychium japonicum*. In: Flora of China: http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200003485

27. *Orchis maculata*

Botanical name: *Orchis maculata* L.⁷⁸

Synonyms: According to the Global Biodiversity Information Facility (GBIF) database, *Orchis maculata* L. is a synonym of *Dactylorhiza maculata* (L.) Soó.⁷⁹
According to the UNEP-WCMC SPECIES+ database, *Orchis maculata macrostachys* (Tineo) Hayek is one of a few synonyms of *Dactylorhiza saccifera* (Brongn.) Soó.

English name: Heath spotted orchid

27.1. Countries of origin

According to Jacquemyn et al (2009), *Orchis maculata* occurs widespread throughout the British Isles and parts of Ireland, has a very wide distribution in Europe and also occurs in parts of Asia. It is found throughout most of Europe – with the exception of northern Russia, mainland Finland and a large part of Sweden – in North Africa and eastwards to Iran, the Caucasus and western Siberia.⁸⁰

There are finished products with labeling showing this species produced under certified organic cultivation.

27.2. Commercially traded forms

27.2.1. *Orchis Maculata* Flower Extract (CosIng)

Description: *Orchis Maculata* Flower Extract is an extract of the flowers of the Orchid, *Orchis maculata* L., Orchidaceae.
INCI Name: *Orchis Maculata* Flower Extract.
INN Name: None stated in CosIng database.
CAS #: 90082-23-8.
EC#: 290-111-2.
HS Code: HS 1302.19 (WCO).
Functions: Skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient may include:

LVMH

185 avenue de Verdun, Saint Jean de Braye 45804 FRANCE
<http://www.lvmh.fr/>

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf
<http://www.mani-gmbh.com/web/extracts.392.html>

27.2.2. *Orchis Maculata* Flower/Leaf/Stem Water (CosIng)

⁷⁸ *Orchis maculata*. In: USDA GRIN database: <http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?25895>

⁷⁹ *Orchis maculata*. In: GBIF database: <http://www.gbif.org/species/2810383>

⁸⁰ Jacquemyn H et al. Biological Flora of the British Isles: *Orchis mascula* (L.) L. *Journal of Ecology* 2009, 97, 360–377.

Description: Orchis Maculata Flower/Leaf/Stem Water is the steam distillate obtained from the flowers, leaves and stems of *Orchis maculata*, Orchidaceae.
INCI Name: Orchis Maculata Flower/Leaf/Stem Water.
INN Name: None stated in CosIng database.
CAS #: 90082-23-8.
EC#: 290-111-2.
HS Code: Unable to determine.
Functions: Masking and perfuming component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf, Deutschland
<http://www.mani-gmbh.com/web/extracts.392.html>

NAT'INOV

ZA Montendre, 49120 SAINT LEZIN, France
<http://www.nat-inov.com/fr/>

27.3. Selected finished products possibly in the European market

27.3.1. Cosmetic products



Product name: SO'BIO etic® Divine Jeunesse Soin intense fermenté

European marketer: Groupe Lea Nature
Avenue Paul Langevin – BP 47
17183 Perigny Cedex La Rochelle – FRANCE
http://www.sobio-etic.com/fr/soin_intense_fermete-p1332178.html

Ingredients: Aqua (Water), Triticum Spelta Seed Water*, Glycerin, Betula Alba Juice*, Coco-Caprylate, Cocoglycerides, Glyceryl Stearate Citrate, Polyglyceryl-3 Stearate, Microcrystalline Cellulose, Hexyldecanol, Hexyldecyl Laurate, Vanilla Planifolia Fruit Water*, Benzyl Alcohol, Hydrogenated Lecithin, Helianthus Annuus (Sunflower) Seed Oil, Camellia Japonica Seed Oil*, Camellia Japonica flower extract*, Parfum (Fragrance), Ribose, Jojoba Esters, Xanthan Gum, Cellulose

Gum, Tocopherol, Avena Sativa (Oat) Kernel Extract*, Argania Spinosa Kernel Oil*, Dehydroxanthan Gum, Linum Usitatissimum (Linseed) Seed Extract*, Dehydroacetic Acid, Linalool, Sodium Phytate, **Orchis Maculata Flower/Leaf/Stem Water***, Glyceryl Caprylate, Sodium Anisate, Sodium Levulinate, Sodium Hydroxide, Limonene, Anise Alcohol, Magnolia Grandifolia Leaf Extract*, Sodium Benzoate, Lilium Candidum Bulb Extract*, Citric Acid, Coumarin, Alcohol.

***Ingredient from organic farming**

28. *Orchis mascula*

Botanical name: *Orchis mascula* L.

Synonym: *Orchis pinetorum* Boiss. & Kotschy

English names: (1) Early purple orchid; (2) Salep

28.1. Countries of origin

According to UNEP-WCMC SPECIES+ database, this is a European species with a range of distribution that includes Albania, Croatia, Czech Republic, Denmark, Estonia, Finland, Hungary, Isle of Man, Latvia, Lithuania, Netherlands, Norway, Poland, Russian Federation, Sweden, Switzerland, Turkey, Ukraine, and United Kingdom of Great Britain and Northern Ireland.⁸¹

Note: According to Ved and Goraya (2008), *Orchis mascula* is introduced and cultivated in India using the Sanskrit name of “Salam misri.”⁸² They report that the roots are harvested and used in the Siddha and Unani systems of medicine as well as in regional folk medicine preparations.

Regarding the Sanskrit name “Salam misri,” it must also be pointed out that a very similar name of “Salab misri” is used in the Unani Pharmacopoeia of India (UPI) to describe the dried tuberous roots of *Orchis latifolia* Linn. According to the UPI, *Orchis latifolia* is found growing in Western temperate Himalayas, from Kashmir to Nepal and West Tibet, at altitudes of between 3,000 to 4,000 m.⁸³

In surveying the commercial availability of extracts made from the roots and/or whole plant of *Orchis mascula*, a number of manufacturers and exporters are indeed situated in India. Thus, Indian origin extracts are likely obtained from starting materials cultivated in India. But it could also be possible that the related species *Orchis latifolia* might be used in Indian extracts for export.

There are projects in Europe for the in vitro propagation of this species.⁸⁴

28.2. Commercially traded forms

28.2.1. *Orchis Masculata* Extract (CosIng)

Description: *Orchis Masculata* Extract is an extract of the whole plant of the Salep, *Orchis mascula* L., Orchidaceae.

INCI Name: *Orchis Masculata* Extract.

INN Name: None stated in CosIng database.

CAS #: 90082-24-9.

EC#: 290-112-8.

HS Code: HS 1302.19 (WCO).

⁸¹ *Orchis mascula*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/29475/distribution

⁸² Ved DK, Goraya GS. *Demand and supply of medicinal plants in India*. National Medicinal Plants Board (NMPB), New Delhi & FRLHT, Bangalore, India. 2008.

⁸³ Salab Misri. In: *Unani Pharmacopoeia of India*, Part I, Volume VI. New Delhi, India: Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), Ministry of Health & Family Welfare. 2009.

⁸⁴ Arregui JM et al. Low scale partnership projects for the in vitro propagation of wild plants: the example of the Valencian Community (Spain): <http://www.uv.es/elalum/cluj1.pdf>

Functions: (1) Hair-conditioning and skin-conditioning component of cosmetic products;
(2) As an active component of herbal dietary supplement and/or herbal medicinal products or formulations.

Selected European marketers of this ingredient include:

Croda France

Immoparc RN 10, BP 49, 78193 Trappes Cedex, France

<http://www.croda.fr/>

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf, Deutschland

<http://www.mani-gmbh.com/web/extracts.392.html>

28.2.2. Orchis Masculina Flower Extract (CosIng)

Description: Orchis Masculina Flower Extract is an extract of the flowers of the Salep, *Orchis masculina* L., Orchidaceae.

INCI Name: Orchis Masculina Flower Extract.

INN Name: None stated in CosIng database.

CAS #: 90082-24-9.

EC#: 290-112-8.

HS Code: HS 1302.19 (WCO).

Functions: Soothing (helps lightening discomfort of the skin or of the scalp) component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf

<http://www.mani-gmbh.com/web/extracts.392.html>

PROVITAL, S.A. - GERMANY

[Germany + Austria + Denmark + Finland + Norway + Netherlands + Sweden + Switzerland]

32, Seeblick, 48480 Lünne, Germany

<http://www.provitalgroup.com>

28.2.3. Orchis Masculina Root Extract

Description: Orchis Masculina Root Extract is an extract of the tubers and fecula of the roots of *Orchis masculina* L., Orchidaceae.

CAS #: 90082-24-9.

EC#: 290-112-8.

HS Code: HS 1302.19 (WCO).

Functions: Active component of herbal dietary supplement products and/or herbal medicinal products or preparations.

28.3. Selected finished products possibly in the European market

28.3.1. Cosmetic products



Product name: Herbal Essences Hello Hydration Moisturising Shampoo

European marketer: Procter & Gamble
Weybridge, Surrey, KT13 0XP, United Kingdom
<http://www.herbalessences.com/en-UK/hello-hydration/moisturising-shampoo>

Ingredients: Aqua, Sodium Laureth Sulfate, Sodium Lauryl Sulfate, Glycol Distearate, Sodium Citrate, Cocamide MEA, Sodium Xylenesulfonate, Cocamidopropyl Betaine, Dimethicone, Parfum, Citric Acid, Sodium Benzoate, Sodium Chloride, Guar Hydroxypropyltrimonium Chloride, Glycerin, Tetrasodium EDTA, Hexyl Cinnamal, Sodium Oxide, Benzyl Salicylate, Propylene Glycol, Limonene, Linalool, Magnesium Nitrate, Zea Mays Silk Extract, **Orchis Masculina Flower Extract**, Cocos Nucifera Fruit Extract, CI 42090, Methylchloroisothiazolinone, Magnesium Chloride, Methylisothiazolinone, Potassium Sorbate.

29. *Orchis morio*

Botanical name: *Orchis morio* L.

Synonyms: According to Kew Royal Botanic Gardens World Checklist of Selected Plant Names, *Orchis morio* L. is a synonym of *Anacamptis morio* (L.) R.M. Bateman, Pridgeon & M.W. Chase.⁸⁵

English name: Green-winged orchid

29.1. Countries of origin

According to UNEP-WCMC SPECIES+ database, *Orchis morio* is a European species with a range of distribution including Albania, Austria, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Guernsey, Hungary, Ireland, Italy, Jersey, Latvia, Lithuania, Malta (EXTINCT), Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain (DISTRIBUTION UNCERTAIN), Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland.⁸⁶

This species has protected status as an endangered species in some European countries and the material of commerce appears to originate from cultivated sources.

29.2. Commercially traded forms

29.2.1. *Orchis Morio* Flower Extract (CosIng)

Description: *Orchis Morio* Flower Extract is an extract of the flowers of the Orchid, *Orchis morio* L., Orchidaceae.

INCI Name: *Orchis Morio* Flower Extract.

INN Name: None stated in CosIng database.

CAS #: 91770-44-4.

EC#: 294-829-7.

HS Code: HS 1302.19 (WCO)

Functions: Soothing (helps lightening discomfort of the skin or of the scalp) component of cosmetic products.

Selected European marketers of this ingredient include:

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf, Deutschland

<http://www.mani-gmbh.com/web/extracts.392.html>

Phytochim, a division of Sodic S.A.

P.O. Box 164, CH-63963 Crans-Sur-Sierre, Schweiz

Unifect Ltd

Swan House, Lynchborough Road, Liphook, Hampshire GU30 7SB United Kingdom

<http://www.unifect.co.uk/>

⁸⁵ Kew Royal Botanic Gardens World Checklist of Selected Plant Names:
http://apps.kew.org/wcsp/namedetail.do?name_id=142922

⁸⁶ *Orchis morio*. In: UNEP-WCMC SPECIES+:
http://www.speciesplus.net/#/taxon_concepts/17370/distribution

29.3. Selected finished products possibly in the European market

29.3.1. Cosmetic products



Product name: EVER SINCE ELIXIR - Dead Sea Salt Scrub

European marketer: EverSince Limited
30 Sovereign Court, Unwin Way, Stanmore, Middlesex, HA7 1FH UK
<http://www.eversince.co.uk/spa-products/exotic-orchid-dead-salt-scrub.html>

Ingredients: Dead sea salt, apricot (*Prunus armeniaca*) kernel oil, sweet almond (*Prunus amygdalus dulcis*) oil, wheat (*Triticum vulgare*) germ oil, olive (*Olea europaea*) oil, fragrance, isopropyl myristate, evening primrose (*Oenothera biennis*) oil, peach (*Prunus persica*) kernel oil, dehydroacetic acid, aloe barbadensis gel, chamomile (*Anthemis nobilis*) extract, phenoxyethanol, honey, **orchid (*Orchis morio*) extract**, ginseng (*Panax ginseng*) extract, soybean (*glycine soja*) extract, ascorbic acid, b.h.t., algae extract.

30. Paphiopedilum Maudiae

Botanical name: *Paphiopedilum Maudiae*.

30.1. Countries of origin

This species does not occur in the wild.

It is an intrageneric hybrid: *Paphiopedilum callosum* (Reichb.f.) Stein x *Paphiopedilum lawrenceanum* (Reichb.f.) Pfitzer makes *Paphiopedilum Maudiae*.

30.2. Commercially traded forms

30.2.1. Paphiopedilum Maudiae Flower Extract (CosIng)

Description: Paphiopedilum Maudiae Flower Extract is an extract of the flowers of the Orchid, *Paphiopedilum maudiae*, Orchidaceae.

INCI Name: Paphiopedilum Maudiae Flower Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO).

Functions: Skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient:

Alban Muller International

8 rue Charles Pathé, 94300 Vincennes, France

http://www.albanmuller.com/_english/cosmetique/AMI-Natural-Cosmetics-Ingredients.pdf

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf, Deutschland

<http://www.mani-gmbh.com/web/extracts.392.html>

30.3. Selected finished products possibly in the European market

30.3.1. Cosmetic products



Product name: ORGANIC SHOP Organic Orchid & Jojoba Hair Conditioner

European marketer: Nature is Simple UK

NEL TRADE LTD

Office 8, 10 Buckhurst Road, Bexhill-On-Sea, East Sussex, United Kingdom TN40 1QF

<http://www.natureissimple.co.uk/conditioner/189-organic-shop-organic-orchid-jojoba-hair-conditioner.html>

Ingredients:

Aqua with infusion of **Organic Paphiopedilum Maudiae (Orchid) Flower Extract**, Cetearyl Alcohol, Glycerine, Simmondsia Chinensis (Jojoba) Seed Oil, Behentrimonium Chloride, Cetrymonium Chloride, Quaternium-87, Hydroxyethylcellulose, Ceteareth-20, Cetrimonium Bromide, Parfum, Citric Acid.

31. Phalaenopsis amabilis

Botanical name: *Phalaenopsis amabilis* (L.) Blume

Synonyms: *Angraecum album-majus* Rumph.
Cymbidium amabile (L.) Roxb.
Epidendrum amabile (L.) Roxb.
Phalaenopsis gloriosa Rchb.f.
Phalaenopsis grandiflora Lindl.
Phalaenopsis pleihary Burgeff
Phalaenopsis rimestadiana (Linden) Rolfe
Synadena amabilis (L.) Raf.

English name: Moth orchid

31.1. Countries of origin

According to UNEP-WCMC SPECIES+, this species occurs in Brunei Darussalam, Indonesia, Malaysia, and the Philippines.⁸⁷

There are published protocols for mass clonal propagation of this species with in vitro culture of leaf segments and there are named cultivars.⁸⁸ There are also methods for micropropagation using flower stock nodes and leaves.⁸⁹

31.2. Commercially traded forms

31.2.1. Phalaenopsis Amabilis Extract (CosIng)

Description: Phalaenopsis Amabilis Extract is an extract of the whole plant of *Phalaenopsis amabilis* (L.), Orchidaceae.

INCI Name: Phalaenopsis Amabilis Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Humectant component of cosmetic products.

Selected European marketers of this ingredient include:

Botanica GmbH

Industrie Nord 10, 5643 Sins, Schweiz

<http://www.botanica.ch/cms/de/>

Greentech S.A.

Biopôle Clermont Limagne, Saint Beauzire 63360 – FRANCE

<http://www.greentech.fr/>

⁸⁷ *Phalaenopsis amabilis*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/22609/distribution

⁸⁸ Sinha P, Jahan MAA. Clonal Propagation of *Phalaenopsis amabilis* (L.) BL. cv. 'Golden Horizon' through *In vitro* Culture of Leaf Segments. *Bangladesh Journal of Scientific and Industrial Research*. 2011;46(2):163-168: <http://www.banglajol.info/index.php/BJSir/article/view/8182>

⁸⁹ Balilashaki K et al. Micropropagation of *Phalaenopsis amabilis* cv. Cool 'Breeze' with using of flower stalk nodes and leaves of sterile obtained from node cultures. *International Journal of Farming and Allied Sciences*. 2014;3(7):823-829: <http://ijfas.com/wp-content/uploads/2014/08/823-829.pdf>

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf, Deutschland

<http://www.mani-gmbh.com/web/extracts.392.html>

Stera Chemicals

292, Giurgiului Rd., 077120 Jilava, Ilfov District, ROMANIA

<http://sterachemicals.ro/site/>

Symrise AG

Mühlenfeldstrasse 1, 37603 Holzminden, Deutschland

<http://products.symrise.com/life-essentials/botanicals/extraponer/>

31.3. Selected finished products possibly in the European market

31.3.1. Cosmetic products



Product name: Mary Cohr Paris Lait Démaquillant Douceur

European marketer: Mary Cohr

1 rue de la Paix, 75002 PARIS, France

<http://www.marycohr.com/nettoyage-de-la-peau/lait-demaquillant-douceur/>

Ingredients:

Water/Eau (Aqua), Caprylic/Capric Triglyceride, Ethylhexyl Palmitate, Butyrospermum Parkii (Shea) Oil, Glycerin, Propanediol, Polysorbate 60, Sorbitan Stearate, Pentylene Glycol, Hydroxyethyl Acrylate/Sodium Acryloyldimethyl Taurate Copolymer, Cyclopentasiloxane, Fragrance (Parfum), Benzyl Alcohol, Cyclohexasiloxane, Butylene Glycol, Disodium EDTA, Sorbitan Isostearate, **Phalaenopsis Amabilis Extract.**

32. Phalaenopsis lobbii

Botanical name: *Phalaenopsis lobbii* (Rchb.f.) Sweet

Synonyms: *Phalaenopsis listeri* Berkeley
Polychilos lobbii (Rchb.f.) Shim

32.1. Countries of origin

According to UNEP-WCMC SPECIES+, *Phalaenopsis lobbii* occurs in India, Myanmar, and Viet Nam.⁹⁰

There are reports of commercial scale micropropagation of *Phalaenopsis* species orchids on a commercial scale.⁹¹

32.2. Commercially traded forms

32.2.1. Phalaenopsis Lobbi Extract (CosIng)

Description: Phalaenopsis Lobbi Extract is an extract of the whole plant of *Phalaenopsis lobbii*, Orchidaceae.

INCI Name: Phalaenopsis Lobbi Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Bleaching (lightens the shade of hair or skin) component of cosmetic products.

Selected European marketers of this ingredient include:

Greentech S.A.

Biopôle Clermont Limagne, Saint Beuzire 63360 – FRANCE

<http://www.greentech.fr/>

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf, Deutschland

<http://www.mani-gmbh.com/web/extracts.392.html>

32.3. Selected finished products possibly in the European market

32.3.1. Cosmetic products

⁹⁰ *Phalaenopsis lobbii*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/25973/distribution

⁹¹ Košir P et al. Direct shoot regeneration from nodes of *Phalaenopsis* orchids. *Acta Agriculturae Slovenica*, 2004;83(2):233-242: <http://aas.bf.uni-lj.si/november2004/02kosir.pdf>



Product name: Manhattan Supersize Waterproof Mascara

European marketer: MANHATTAN COSMETICS
COTY BEAUTY, a Division of Coty Germany GmbH
Rheinstr. 4E, 55116 Mainz
<http://www.manhattan.de/de/produkte/eyes/product/Productline/details/supersize-waterproof/21889019006/>

Ingredients: Contains Phalaenopsis Lobbi Extract, among many other ingredients:
https://www.manhattan.de/fileadmin/user_upload/INCI_Manhattan_2013.pdf

33. *Phalaenopsis pulcherrima*

Botanical name: *Phalaenopsis pulcherrima* (Lindl.) J.J.Sm.

Synonyms: *Doritis pulcherrima* Lindley
Phalaenopsis antennifera Reichb.f.
Phalaenopsis buyssoniana Reichb.f.
Phalaenopsis esmeralda Reichb.f.

Chinese name: 五唇兰 [wu chun lan]

33.1. Countries of origin

According to Flora of China, *Doritis pulcherrima* (syn.: *Phalaenopsis pulcherrima*) occurs in rocky places or soil-covered rocks in dense forests or thickets in Hainan Province.⁹²

According to UNEP-WCMC SPECIES+ database, the range of distribution for *Phalaenopsis pulcherrima* includes Cambodia, China, India, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Taiwan, Province of China, Thailand, and Viet Nam.⁹³

33.2. Commercially traded forms

33.2.1. *Phalaenopsis Pulcherrima* Callus Powder (CosIng)

Description: *Phalaenopsis Pulcherrima* Callus Powder is the powder obtained from the dried, ground callus of *Phalaenopsis pulcherrima* grown in culture, Orchidaceae.

INCI Name: *Phalaenopsis Pulcherrima* Callus Powder.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: Unable to determine.

Functions: Skin-conditioning component of cosmetic products.

Selected European marketers of this ingredient:

Naolys

86, route d'Arcachon, 33610 Cestas Pierroton, France

http://www.naolys.com/index_fr.php

33.2.2. *Phalaenopsis Pulcherrima* Leaf Cell Extract (CosIng)

Description: *Phalaenopsis Pulcherrima* Leaf Cell Extract is the extract of a culture of the leaf cells of *Phalaenopsis pulcherrima*, Orchidaceae.

INCI Name: *Phalaenopsis Pulcherrima* Leaf Cell Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Antioxidant and skin-protecting component of cosmetic products.

⁹² *Doritis pulcherrima*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028653

⁹³ *Phalaenopsis pulcherrima*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/27127/distribution

Selected European marketers of this ingredient:

Naolys

86, route d'Arcachon, 33610 Cestas Pierroton, France

http://www.naolys.com/index_fr.php

33.3. Selected finished products possibly in the European market

Unable to identify any finished products in the European market that contain this ingredient

34. Phalaenopsis sogo yukidian

Botanical name: *Phalaenopsis sogo yukidian*

34.1. Countries of origin

This species does not occur in the wild. It is a hybrid.

34.2. Commercially traded forms

34.2.1. Phalaenopsis Sogo Yukidian Petal Extract (CosIng)

Description: Phalaenopsis Sogo Yukidian Petal Extract is the extract of the petals of *Phalaenopsis sogo yukidian*, Orchidaceae.

INCI Name: Phalaenopsis Sogo Yukidian Petal Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: Antioxidant and skin-protecting component of cosmetic products.

34.3. Selected finished products in the European market

Unable to identify any finished products in the European market that contain this ingredient.

35. *Pleione bulbocodioides*

Botanical name: *Pleione bulbocodioides* (Franch.) Rolfe

Synonym(s): *Coelogyne bulbocodioides* Franch.
Coelogyne delavayi Rolfe
Coelogyne henryi Rolfe
Pleione communis Gagnep.
Pleione fargesii Gagnep.
Pleione ganchuenensis Gagnep.
Pleione mairei Schltr.
Pleione pogonioides (Rolfe) Rolfe
Pleione rhombilabia Hand.-Mazz
Pleione smithii Schltr.

Chinese name(s): 云南独蒜兰 [bing qiu zi]
独蒜兰 [du suan lan]
山慈菇 [shan ci gu]

35.1. Countries of origin

According to Flora of China, this species occurs in humus-covered soil, on mossy rocks in evergreen broad-leaved forests and at thicket margins at altitudes of 900 to 3600 m in Chinese Provinces of Anhui, (northern) Fujian, (southern) Gansu, (northern) Guangdong, (northern) Guangxi (Guangxi Zhuang Autonomous Region), Guizhou, Hubei, Hunan, (southern) Shaanxi, Sichuan, (southeastern) Xizang (Tibet Autonomous Region), (central and northwestern) Yunnan.⁹⁴

According to UNEP-WCMC SPECIES+ database, this species also occurs outside of the PRC in the Lao People's Democratic Republic.⁹⁵

There are reports that wild populations are declining due to overexploitation but that methods for mass propagation also being developed.⁹⁶

35.2. Commercially traded forms

35.2.1. *Pseudobulbus Cremastrae* seu *Pleiones* / 山慈菇 / shan ci gu (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): Appendiculate *Cremastra* Pseudobulb or Common *Pleione* Pseudobulb is the dried pseudobulb of *Cremastra appendiculata* (D. Don) Makino, ***Pleione bulbocodioides* (Franch.) Rolfe** and/or *Pleione yunnanensis* Rolfe (Fam. Orchidaceae).

The former is known as "Maocigu", and the latter two are known as "Bingqiuzi". The drug is collected in summer and autumn, removed from the aerial part and soil, sorted according to size, steamed thoroughly with boiling water, and dried.

HS Code: Unable to determine.

⁹⁴ *Pleione bulbocodioides*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028806

⁹⁵ *Pleione bulbocodioides*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/21776/distribution

⁹⁶ Mass Propagation of *Pleione Bulbocodioides* (Franch) Rolfe: <http://mt.china-papers.com/1/?p=152746>

Selected European marketers of this ingredient may include:

Jin Feng Germany

Wasserstraße 18

D-18439 Stralsund, Mecklenburg/Vorpommern, Germany

<http://www.jin-feng-germany.com/>

Sanjiao.nl B.V. - Die Chinesische Kräuterapotheke

Storkstraat 55, 3905 KX Veenendaal

<http://www.sanjiao.de/tier-kraut/einfache-kruter-pferde-und-haustiere>

Note: Some European marketers of Chinese medicinal herbs list an entirely different species under the same Chinese pinyin name of 'shan ci gu'. For example, **Apotheke am Theater, Freiburg** lists Tulpenknollen chinesische (*Tulipae edulis tubera*) as 'Shan Ci Gu' but also states that it is not available (Dieser Artikel ist nicht lieferbar).⁹⁷

According to Flora of China, the pinyin name for *Tulipa edulis* is 'lao ya ban'.

Furthermore, Swissmedic 'Liste TAS' (Liste der dokumentierten traditionellen asiatischen Stoffe) includes the following statements: *Cremastrae seu Pleiones Pseudobulbus* (*Pseudobulbus Shancigu* nicht zulässig!!!); nicht zu verwechseln mit *Tulipa edulis* (Miq.) Baker, *Iphigenia indica* Kunth et Benth. Internationaler Artenschutz: CITES App. II (Orchideen) (CL).⁹⁸

35.3. Selected finished products possibly in the European Market

35.3.1. Medicinal products

Note: This botanical could be present in any European countries where traditional Oriental herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Oriental formulations that contain this botanical include:

- Jiedu Xiaozheng Yin
- Tai Yi Zi Jin Dan [Tai Yi Purple Gold Elixir]
- Zi Li Shan Ci Gu Tang

⁹⁷ TCM-Kräuter. In: Apotheke am Theater, Freiburg: <http://internet-apotheke-freiburg.de/shop/tcm.html>

⁹⁸ Swissmedic. Liste der dokumentierten traditionellen asiatischen Stoffe (Liste TAS). 01 Mai 2011: <https://www.swissmedic.ch/zulassungen/00153/00189/00190/00738/index.html?lang=de>



Product name: ПЛАСТЫРЬ ОТ ДАВЛЕНИЯ - Лечебный пластырь для понижения давления крови

European marketer: Kiev-Beijing
Kiev, Ukraine
<http://kiev-pekin.at.ua/shop/243/desc/plastyr-ot-davlenija-zhujsjutan-3-paketa-po-2-plastyrja-6-plastyrej-v-upakovke>

Composition: Сколопендра коричник китайский, Manchurian Wildginger, Rhizoma Sparganii, Semen Vaccariae, Pseudobulbus Cremastrae seu Pleiones, Liquidambar formosana Hance и др.

36. *Pleione yunnanensis*

Botanical name: *Pleione yunnanensis* (Rolfe) Rolfe

Synonym(s): *Coelogyne yunnanensis* Rolfe
Pleione chiwuana T.Tang & W.Wan

Chinese name(s): 云南独蒜兰 [bing qiu zi]
山慈菇 [shan ci gu]
云南独蒜兰 [yun nan du suan lan]

36.1. Countries of origin

According to Flora of China, this species occurs on mossy rocks in forests and at forest margins, shaded and rocky places on grassy slopes and under ericaceous shrubs at altitudes of 1100 to 3500 m in the Chinese Provinces of (northern and western) Guizhou, (southwestern) Sichuan, (southeastern) Xizang (Tibet Autonomous Region), and (northwestern and southeastern) Yunnan.⁹⁹

Outside of China it occurs in (northern) Myanmar.

36.2. Commercially traded forms

36.2.1. *Pseudobulbus Cremastrae seu Pleiones* / 山慈菇 / shan ci gu (PPRC)

Source: Pharmacopoeia of the People's Republic of China (PPRC): Appendiculate Cremastra Pseudobulb or Common Pleione Pseudobulb is the dried pseudobulb of *Cremastra appendiculata* (D. Don) Makino, *Pleione bulbocodioides* (Franch.) Rolfe and/or ***Pleione yunnanensis* Rolfe** (Fam. Orchidaceae).

The former is known as "Maocigu", and the latter two are known as "Bingqiuzi". The drug is collected in summer and autumn, removed from the aerial part and soil, sorted according to size, steamed thoroughly with boiling water, and dried.

HS Code: Unable to determine.

Selected European marketers of this ingredient may include:

Jin Feng Germany

Wasserstraße 18

D-18439 Stralsund, Mecklenburg/Vorpommern, Germany

<http://www.jin-feng-germany.com/>

Sanjiao.nl B.V. - Die Chinesische Kräuteraapotheke

Storkstraat 55, 3905 KX Veenendaal

<http://www.sanjiao.de/tier-kraut/einfache-kruter-pferde-und-haustiere>

Note: Some European marketers of Chinese medicinal herbs list an entirely different species under the same Chinese pinyin name of 'shan ci gu'. For example, **Apotheke am**

⁹⁹ *Pleione yunnanensis*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200028809

Theater, Freiburg lists Tulpenknollen chinesische (*Tulipae edulis tubera*) as 'Shan Ci Gu' but also states that it is not available (Dieser Artikel ist nicht lieferbar).¹⁰⁰

According to Flora of China, the pinyin name for *Tulipa edulis* is 'lao ya ban'.

Furthermore, the Swissmedic 'Liste TAS' (Liste der dokumentierten traditionellen asiatischen Stoffe) includes the following statements: Cremastrae seu Pleiones Pseudobulbus (Pseudobulbus Shancigu nicht zulässig!!!); nicht zu verwechseln mit *Tulipa edulis* (Miq.) Baker, *Iphigenia indica* Kunth et Benth. Internationaler Artenschutz: CITES App. II (Orchideen) (CL).¹⁰¹

36.3. Selected finished products possibly in the European Market

36.3.1. Medicinal products

Note: This botanical could be present in any European countries where traditional Oriental herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Important traditional Oriental formulations that contain this botanical include:

- Jiedu Xiaozheng Yin
- Tai Yi Zi Jin Dan [Tai Yi Purple Gold Elixir]
- Zi Li Shan Ci Gu Tang



Product name: ПЛАСТЫРЬ ОТ ДАВЛЕНИЯ - Лечебный пластырь для понижения давления крови

European marketer: Kiev-Beijing
Kiev, Ukraine
<http://kiev-pek.in.ua/shop/243/desc/plastyr-ot-davlenija-zhujsjutan-3-paketa-po-2-plastyria-6-plastyrej-v-upakovke>

Composition: Сколопендра коричник китайский, Manchurian Wildginger, Rhizoma Sparganii, Semen Vaccariae, Pseudobulbus Cremastrae seu Pleiones, Liquidambar formosana Hance и др.

¹⁰⁰ TCM-Kräuter. In: Apotheke am Theater, Freiburg: <http://internet-apotheke-freiburg.de/shop/tcm.html>

¹⁰¹ Swissmedic. Liste der dokumentierten traditionellen asiatischen Stoffe (Liste TAS). 01 Mai 2011: <https://www.swissmedic.ch/zulassungen/00153/00189/00190/00738/index.html?lang=de>

37. *Vanda coerulea*

Botanical name: *Vanda coerulea* Griff. ex Lindl.

Synonym(s): *Vanda coerulea hennisiane* Schltr.
Vanda coerulea sanderae Rchb.f.
Vanda coerulescens Lindl.¹⁰²

Chinese name: 大花万代兰 [da hua wan dai lan]

Thai name(s): ฟ้ามุ่ย [Faa mui]

แวนด้าฟ้ามุ่ย [Wan da faa mui]

37.1. Countries of origin

According to Flora of China, this species occurs on tree trunks in open forests or along rivers at altitudes of 1000 to 1600 m in southern Yunnan Province.¹⁰³

Outside of the PRC, it occurs in (northeastern) India, Myanmar, and (northern) Thailand.

There are numerous papers published describing methods of mass propagation of this species.

37.2. Commercially traded forms

37.2.1. *Vanda Coerulea* Extract (CosIng)

Description: *Vanda Coerulea* Extract is the extract of the whole plant, *Vanda coerulea*, Orchidaceae

INCI Name: *Vanda Coerulea* Extract.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO).

Functions: Antioxidant component of cosmetic products.

Selected European marketers of this ingredient include:

Greentech S.A.

Biopôle Clermont Limagne, Saint Beuzire 63360, FRANCE

<http://www.greentech.fr/>

mani GmbH

Erich-Müller-Straße 19 a, 40597 Düsseldorf, DEUTSCHLAND

<http://www.mani-gmbh.com/web/extracts.392.html>

37.3. Selected finished products possibly in the European market

37.3.1. Cosmetic products

¹⁰² *Vanda coerulea*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/19324/names

¹⁰³ *Vanda coerulea*. In: Flora of China:

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=250092897



Product Name: Gesichtsoil Huile Orchidée Bleue - feuchtigkeitssame Haut

European marketer: CLARINS SA
4 rue Berteaux Dumas, 92200 Neuilly sur Seine (France)
<http://www.clarins.ch/de/gesichtsoel-huile-orchidee-bleue---feuchtigkeitssame-haut/C010401002.html>

Ingredients: Aromatherapeutische Wirkung: **Blaue Orchidee (*Vanda coerulea*)**, Rosenholz, Patschouli: beleben, revitalisieren. Pflanzenextrakte: Haselnuss-Öl.

38. *Vanda teres*

Botanical name: *Vanda teres* (Roxb.) Lindl.

Synonyms(s): According to UNEP-WCMC SPECIES+ database, both *Vanda teres* and *Aerides subulata* (J.Koenig) Schltr. are synonyms for *Papilionanthe teres* (Lindley) Garay.¹⁰⁴

Chinese name: 凤蝶兰 [feng die lan]
Nepalese name(s): [Harjor, Thurjo]
Thai name(s): เอื้องโมก [Euang mohk, Euang mohk gor]
เอื้องโมกกุหลาบ [Euang mohk gu laap]
แวนด้าใบกลม [Wan da bai glom].

38.1. Countries of origin

According to UNEP-WCMC SPECIES+ database, the range of distribution for *Papilionanthe teres* (syn.: *Vanda teres*) includes India, Lao People's Democratic Republic, Myanmar, and Thailand. However, scientific papers (cited below) suggest that it also occurs in Nepal.

And according to Flora of China, this species is epiphytic on tree trunks in open forests or at forest margins at altitudes of 500 to 900 m in (southern) Yunnan Province, and occurs outside of the PRC, in Bangladesh, Bhutan, India, Laos, Myanmar, Nepal, Thailand, and Vietnam.

An article published in Vogue Magazine states:

„Guerlain’s *Orchidée Impériale Longevity Concentrate* (\$490 for one ounce) draws its potency from the stems of the fluttering purple blossoms of the *Vanda teres* orchid, **hand-collected from a canopy of trees in a nature reserve in the Chinese province of Yunnan.**”¹⁰⁵

Another magazine article provides additional information on Guerlain’s use of *Vanda* species from Yunnan:

“High in the Yunnan mountains, where the climate is cool and humid, grow three astounding varieties of orchids: the New Gold Orchid, the *Vanda Coerulea* and the *Vanda Teres*. Several years ago Guerlain entered into an environmental partnership with local authorities committing to a programme of reforestation of a part of the region. This has enabled the cosmetic company to be able not only to protect, but also to study these marvellous exotic flowers...”¹⁰⁶

¹⁰⁴ *Papilionanthe teres*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/23227/names

¹⁰⁵ Piercy C. Complexion Perfection: The Statement Piece of the Season May Be Your Moisturizer. *Vogue Magazine*. 11 November 2011: <http://www.vogue.com/magazine/article/complexion-perfection-the-statement-piece-of-the-season-may-be-your-moisturizer/#1>

¹⁰⁶ Kihlberg E. Confucius said: the orchid is the Queen of fragrant plants. *Luxos News*: <http://www.luxos.com/news/beauty/4204-orchid-beauty>

Sinha and Roy (2004) report that propagation and regeneration of *Vanda teres* is occurring through in vitro culture in India.¹⁰⁷ Pant (2013), proposes production by tissue culture as an alternative to wild collection for sustainable use and trade.¹⁰⁸

On the other hand, Subedi et al (2013) report that collection and trade of wild orchids in Nepal is widespread and list *Papilionanthe teres* among the orchids reportedly used in traditional medicine and commercial trade in Nepal.¹⁰⁹

38.2. Commercially traded forms

38.2.1. Vanda Teres Stem Extract

Description: Vanda Teres Stem Extract is the extract of the stems of *Vanda teres* (Roxb.) Lindl., Orchidaceae.

INCI Name: None stated in CosIng database.

INN Name: None stated in CosIng database.

CAS #: None stated in CosIng database.

EC#: None stated in CosIng database.

HS Code: HS 1302.19 (WCO)

Functions: None stated in CosIng database.

Note: Unable to identify any marketers of this ingredient and it is not listed in the CosIng cosmetic ingredients database. It appears that Guerlain may be the main or only company that is having this ingredient produced for their own finished products from their raw material source in Yunnan Province.

Regarding the non-extracted raw material, other documents (already referenced herein) suggest that there is domestic trade and use of the raw material in India and Nepal. No evidence of exporting the raw material was found.

¹⁰⁷ Sinha P, Roy SK. Regeneration of an indigenous orchid, *Vanda teres* (Roxb.) Lindl. through in vitro culture. *Plant Tissue Cult.* 2004;14(1):55-61:

http://www.bapctb.org/ptc/full_article/ptc14_1_07.pdf

¹⁰⁸ Pant B. Medicinal orchids and their uses: Tissue culture a potential alternative for conservation. *African Journal of Plant Science.* 2013;7(10): 448-467:

http://www.academicjournals.org/article1381822891_Pant.pdf

¹⁰⁹ Subedi A et al. Collection and trade of wild-harvested orchids in Nepal. *Journal of Ethnobiology and Ethnomedicine.* 2013;9:64: <http://www.ethnobiomed.com/content/pdf/1746-4269-9-64.pdf>

38.3. Selected finished products possibly in the European market

38.3.1. Cosmetic products



Product name: Orchidée Impériale Eye and Lip Cream

European marketer: Guerlain SA, 125, rue du Président Wilson, 92593 Levallois Perret Cedex FRANCE

<http://www.guerlain.com/int/en-int/orchidee-imperiale-eye-and-lip-cream>

Ingredients: Although the botanical names of the ingredients are not disclosed the product is made with “gold orchid” and independent news articles report that this is an extract of *Dendrobium chrysotoxum*. Information received from BLV also lists the ingredients of this product to include *Dendrobium chrysotoxum*, *Phalaenopsis ‘Anubis’*, *Vanda coerulea*, and *Vanda teres*.

39. *Vanda tessellata*

Botanical name: *Vanda tessellata* (Roxb.) Hook. ex G. Don

Synonym(s):¹¹⁰ *Aerides tessellata* (Roxb.) Wight
Aerides tessellatum * (Roxb.) Wight .
Aerides tessellatum * (Roxb.) Wight.
Cymbidium tessellatum (Roxb.) Sw.
Cymbidium tesselloides Roxb.
Epidendrum tessellatum Roxb.
Vanda roxburghii R.Br.
Vanda tesselloides (Roxb.) Rchb.f.
Vanda unicolor Steud. sensu Christenson

English name: Vanda orchid

Nepalese name: गाई तिवारे [Gaaii tivaare (Gai tivare)]

Sanskrit name: Nai rasna, Rasna

Tamil name: Vellaipunelu.

Note: According to Ved and Goraya (2008), an entirely different plant species, *Pluchea lanceolata* (DC.) Oliv. & Hiern. (Asteraceae), is also traded in India using the same Sanskrit name of “**Rasna**.”¹¹¹ It is therefore possible that Ayurvedic traditional herbal medicinal products labeled as containing “**Rasna**” may contain *Vanda tessellata* or *Pluchea lanceolata*.

Ved and Goraya also list the root of *V. tessellata* as wild collected only in India for use in Ayurvedic medicines, Siddha medicines, and Unani medicines, as well as in regional folk medicines.

39.1. Countries of origin

According to UNEP-WCMC SPECIES+ database, the range of distribution for *Vanda tessellata* includes Bangladesh, India, Myanmar, Nepal, and Sri Lanka.

39.2. Commercially traded forms

39.2.1. Rasna root

Source: “Rasna” consists of the dried root of *Vanda tessellata* (Roxb.) Hook. ex G. Don (Fam. Orchidaceae). It grows from the Indian States of Uttar Pradesh to West Bengal and extends to the south of India.

HS Code: HS 1211.90 (WCO)

Note: According to the Ayurvedic Pharmacopoeia of India, “Rasna” also consists of dried leaf of *Pluchea lanceolata* Oliver & Hiern. (Fam. Asteraceae).¹¹²

¹¹⁰ *Vanda tessellata*. In: UNEP-WCMC SPECIES+:

http://www.speciesplus.net/#/taxon_concepts/28345/names

¹¹¹ Ved DK, Goraya GS. *Demand and supply of medicinal plants in India*. National Medicinal Plants Board (NMPB), New Delhi & FRLHT, Bangalore, India. 2008.

¹¹² Ayurvedic Pharmacopoeia Committee. *The Ayurvedic Pharmacopoeia of India*, Part I, Volume III, First Edition. New Delhi, Government of India, Ministry of Health and Family Welfare, Department of Ayurveda, Yoga-Naturopathy, Unani, Siddha & Homoeopathy (AYUSH).

39.3. Selected finished products possibly in the European market

39.3.1. Medicinal products

Note: This botanical could be present in any European countries where Ayurvedic traditional herbal medicinal products or formulations are dispensed by practitioners or sold in natural product stores or pharmacies.

Classical Ayurvedic formulations that may contain this botanical include:

- Maharasnadi kvatha
- Rasnadiurna
- Rasnadi vati
- Rasnadi lepa
- Rasnadi kvatha
- Yogaraja guggula



Product name: Auromère Ayurveda Massage Oil

EU Marketers: Amazon.co.uk
<http://www.amazon.co.uk/Auromere-Ayurvedic-Massage-Oil-32/dp/B0015C9UF8>

Etal Pure UK
Unit 11, 4 Cross York St, Leeds LS2 7EE, United Kingdom
<http://www.etalpure.co.uk/massage-oil-4-oz-118-ml-auromere>

Fishpond.co.uk
<http://www.fishpond.co.uk/Beauty/Ayurvedic-Massage-Oil-Auromere-Ayurvedic-Products-120ml-Oil/9999317424705>

Ingredients: Sesame Oil, Asparagus racemosus, Sweet Flag (extract), Round Zedoary, Desmodium gangeticum (extract), Indian Beech, Castor Oil, Solanum xanthocarpum, Indian Nightshade, Uraria lagopoids, Sweet Flag (crushed), Deodar Pine, Spreading Hogweed, Fennel, Sandalwood Oil, Eaglewood, Yellow Lichen, Indian Valerian, Costus, Cardamom, Musk Root, Desmodium gangeticum (crushed), Country Mallow, Winter Cherry, **Vanda roxburghii**, Rock Salt.