Botanical name	Family	Synonym	Part traditionally used/specific preparations	Part of concern	chemical	Info	Comments	Notes	References	Reference
Actaea heracleifolia (Kom.) J.Compton	Ranunculaceae	Cimicifuga heracleifolia Kom.	rhizome			Phenolic compounds: e.g. cimicifugic acids, triterpenoid glycosides. Asian Cimicifuga. Sometimes used to falsify C. racemosa. Cimicifuga racemosa under scrutiny for hepatotoxicity.	This plant is not allowed in food supplements	The plant contains glycosides that are present in black cohosh (Cimicifuga).	Kusano, A., Takahira, M., Shibano, M., Miyase, T., & Kusano, G. (1999). Studies on the constituents of Cimicifuga species. XXVI. Twelve new cyclolanostanol glycosides from the underground parts of Cimicifuga simplex Wormsk. *CHEMICAL AND PHARMACEUTICAL BULLETIN-TOKYO-*, *47*, 511-516.	Chunhui Ma et al. 2011. Metabolic profiling of Actaea (Cimicifuga) species extracts using high performance liquid chromatography coupled with electrospray ionization time-of-flight mass spectrometry. J Chromatogr A. 18; 1218 (11): 1461–1476.

Actaea racemosa L.	Ranunculaceae	Cimicifuga racemosa (L.) Nutt.	root, rhizome			Cycloartenal-type triterpenes, phenolics and flavonoids. Herb under scrutiny for hepatotoxicity	This plant is not allowed in food supplements	The plant contains glycosides that are present in black cohosh (Cimicifuga).	Kusano, A., Takahira, M., Shibano, M., Miyase, T., & Kusano, G. (1999). Studies on the constituents of Cimicifuga species. XXVI. Twelve new cyclolanostanol glycosides from the underground parts of Cimicifuga simplex Wormsk. *CHEMICAL AND PHARMACEUTICAL BULLETIN-TOKYO-*, *47*, 511-516.	Barnes J. Anderson L. A; Phillipson J. David 2007. Herbal Medicines Third edition ISBN 978 0 85369 623 0. EMA HMPC 2010. Assessment report on Cimicifuga racemosa (L.) Nutt., rhizome. EMA/HMPC/ 3968/2008

Aphanizomenon flosaquae Ralfs ex Bornet & Flahault	Nostocaceae		cyanobacteria		Toxins: aphantoxins: e.g. neosaxitoxin. Microcystins, nodularins...	Neurotoxicity, hepatotoxicity. Estrogenic activity.	Extracts are toxic. Not advisable to use as food supplement.	The toxins are identical in behaviour to neosaxitoxin and saxitoxin (Neurotoxicity, hepatotoxicity. Estrogenic activity).	Ikawa, M., Wegener, K., Foxall, T. L., & Sasner, J. J. (1982). Comparison of the toxins of the blue-green alga Aphanizomenon flos-aquae with the Gonyaulax toxins. *Toxicon*, *20*(4), 747-752.	Heussner AH et al (2012), Toxin content and cytotoxicity of algal dietary supplements. Toxicol Appl Pharmacol. 265(2):263-271. Sychrová E et al, (2012), Estrogenic activity in extracts and exudates of cyanobacteria and green algae.Environ Int. Environ Int. 39(1):134-140.

Asimina triloba (L.) Dunal	Annonaceae		fruit	bark, leaf, seed	Acetogenins: e.g. asimin, asiminacin, asiminecin	Annonacins induce atypical Parkinsonism. They are lipophilic inhibitors of complex I of the mitochondrial respiratory chain. These acetogenins are not very well watersoluble	Safety concerns due to annonaceous acetogenins	Annonaceous acetogenins can be hepato- and nephrotoxic, and toxic to dopaminergic neurons inducing an atypical Parkinsonism.	Zhao, G. X., Miesbauer, L. R., Smith, D. L., & McLaughlin, J. L. (1994). Asimin, asiminacin, and asiminecin: Novel highly cytotoxic asimicin isomers from Asimina triloba. Journal of medicinal chemistry, 37(13), 1971-1976.; Zhao, G. X., Gu, Z. M., Zeng, L., Chao, J. F., Kozlowski, J. F., Wood, K. V., & McLaughlin, J. L. (1995). The absolute configuration of trilobacin and trilobin, a novel highly potent acetogenin from the stem bark of Asimina triloba (Annonaceae). Tetrahedron, 51(26), 7149-7160.; Chen,	Zhao GX et al. 1993. Biologically active acetogenins from stem bark of Asimina triloba. Phytochemistry. 33(5), 1065-1073. Geng-Xian Z et al. 1994. Asimin, asimacin, and asiminecin: novel highly cytotoxic asimicin isomers from Asimina triloba. J. Med. Chem. 37(13), 1971-1976

									Y., Chen, J. W., Zhai, J. H., Wang, Y., Wang, S. L., & Li, X. (2013). Antitumor activity and toxicity relationship of annonaceous acetogenins. Food and Chemical Toxicology, 58, 394-400.; Lannuzel, A., Höglinger, G. U., Champy, P., Michel, P. P., Hirsch, E. C., & Ruberg, M. (2006). Is atypical parkinsonism in the Caribbean caused by the consumption of Annonacae?. In Parkinson's Disease and Related Disorders (pp. 153-157). Springer Vienna.	

Averrhoa carambola L.	Oxalidaceae		fruit	seed, leaf	Fruit: oxalic acid (1%);	Seed regarded as narcotic, anodyne, emetic and emmenagogue. Fruit is strong inhibitorof CYP3A4, CYP1A2, CYP2A6, CYP2C8, CYP2C9, CYP2D6, and CYP2E1. Therefore it is contraindicated in the case of medication intake like statins, benzodiazepins. Aqueous extract of the leaves strongly depresses the heart rate and the myocardial contractile force.	Toxicity due to oxalate content in fruit. Should be declared. Seeds should not be consumed as food supplement. Fruit may have effects on liver enzymes and heart.	Oxalate intake should not exceed 45-90 mg/day. Should be consumed under medical supervision. Unknown constituents with potentially toxic effects on heart and liver.	Chang, J. M., Hwang, S. J., Kuo, H. T., Tsai, J. C., Guh, J. Y., Chen, H. C., ... & Lai, Y. H. (2000). Fatal outcome after ingestion of star fruit (Averrhoa carambola) in uremic patients. American journal of kidney diseases, 35(2), 189-193.; Calmes, J., Pommerol, P. D., Pulou, R., & Carles, J. (1970). Structure et repartition des cristaux d'oxalate de calcium chez la vigne vierge (Parthenocissus tricuspidata Planchon). Acad Sci Compt Rend Ser D.;	Neto MM et al. 2003. Intoxication by star fruit (Averrhoa carambola) in 32 uraemic patients: treatment and outcome. Nephrol Dial Transplant. 18(1): 120-5. Patil Avinash et al., 2012. A Comprehensive Review of An Important Medicinal Plant – Averrhoa carambola L.Pharmacognosy Communications. 2 (2) 13-17. Jiang-Wei Zhang et al. 2007. Inhibition of Human Liver Cytochrome P450 by Star Fruit Juice. J Pharm Pharmaceut Sci 10 (4): 496-503

Betula alleghaniensis Britton	Betulaceae		bark, leaf			Lupane triterpene derivatives e.g.betulinic acid… Cytotoxicity of betulinic acid in vitro and in vivoLupane triterpene derivatives e.g.betulinic acid… Cytotoxicity of betulinic acid in vitro and in vivo	EO toxic due to salicylate content. Toxicity with 0.130 ml of oil. Not for internal use. Cases of intoxication with Betula (wintergreen) oil.	Daily dose of dietary salicylates should not exceed 15.3 mg but sensitive subjects may react to 2.6 mg daily.	Baxter, E. H., Hartwell, R. M., & Reck, L. E. (1938). Methyl Salicylate Poisoning. Journal of the American Medical Association, 111(27), 2476-2477.; Corder, E. H., & Buckley, C. E. (1995). Aspirin, salicylate, sulfite and tartrazine induced bronchoconstriction. Safe doses and case definition in epidemiological studies. *Journal of clinical epidemiology*, *48*(10), 1269-1275.	Bruneton J. 2009. Pharmacognosie, 1269 pages, Ed.Tec&Doc Lavoisier, ISBN : 978-2-7430-1188-8

Betula lenta L.	Betulaceae		bark, leaf, sap	bark, leaf	Salicylate glycosides (1.5%-11%): e.g. salicin, salicortin, populin, fragilin, tremulacin.	Tannins (10%-20%)	EO toxic due to salicylate content. Toxicity with 0.130 ml of oil. Not for internal use. Cases of intoxication with Betula (wintergreen) oil.	Daily dose of dietary salicylates should not exceed 15.3 mg but sensitive subjects may react to 2.6 mg daily.	Baxter, E. H., Hartwell, R. M., & Reck, L. E. (1938). Methyl Salicylate Poisoning. Journal of the American Medical Association, 111(27), 2476-2477.; Corder, E. H., & Buckley, C. E. (1995). Aspirin, salicylate, sulfite and tartrazine induced bronchoconstriction. Safe doses and case definition in epidemiological studies. *Journal of clinical epidemiology, 48*(10), 1269-1275.	B. J. W. Cole, et al. 1991 "Triterpenoid extractives in the outer bark of Betula lenta (Black birch)," Holzforschung, 45, (4) 265–268

Betula pendula Roth	Betulaceae		bud, bark, leaf, juice, tar			Bark: methylsalicylates: e.g. monotropitine; proanthocyanidines and triterpenes: e.g. betulin. Leaf: flavonoids (3%); triterpenesaponins: e.g. betulafolientrenol (dammarane type saponins); essential oil (0.05%-0.1%): sesquiterpeneoxides. Buds: essential oil (4%-6%): sesquiterpenes: e.g. beta betulenol. Tear: phenols: e.g. cresol, pyrogallol. Juice: sugar (1%), acids, kalium (0.03%)	EO toxic due to salicylate content. Toxicity with 0.130 ml of oil. Not for internal use. Cases of intoxication with Betula (wintergreen) oil.	Daily dose of dietary salicylates should not exceed 15.3 mg but sensitive subjects may react to 2.6 mg daily.	Baxter, E. H., Hartwell, R. M., & Reck, L. E. (1938). Methyl Salicylate Poisoning. Journal of the American Medical Association, 111(27), 2476-2477.; Corder, E. H., & Buckley, C. E. (1995). Aspirin, salicylate, sulfite and tartrazine induced bronchoconstriction. Safe doses and case definition in epidemiological studies. *Journal of clinical epidemiology, 48*(10), 1269-1275.	Gründemann C et al. 2011. An aqueous birch leaf extract of Betula pendula inhibits the growth and cell division of inflammatory lymphocytes. J Ethnopharmacol. 14; 136 (3):444-451.

Betula pubescens Ehrh.	Betulaceae		bud, bark, leaf, juice, tar			Probably same constituents	EO toxic due to salicylate content. Toxicity with 0.130 ml of oil. Not for internal use. Cases of intoxication with Betula (wintergreen) oil.	Daily dose of dietary salicylates should not exceed 15.3 mg but sensitive subjects may react to 2.6 mg daily.	Baxter, E. H., Hartwell, R. M., & Reck, L. E. (1938). Methyl Salicylate Poisoning. Journal of the American Medical Association, 111(27), 2476-2477.; Corder, E. H., & Buckley, C. E. (1995). Aspirin, salicylate, sulfite and tartrazine induced bronchoconstriction. Safe doses and case definition in epidemiological studies. *Journal of clinical epidemiology, 48*(10), 1269-1275.	Hagers Handbuch der Pharmazeutischen Praxis 1998. Springer Verlag. ISBN 3-540-52688-11

Cannabis sativa L.	Cannabaceae		seed	Flowering tops, resin	canabinoids (terpenophenolics): e.g. tetrahydrocannabinol (THC)		EO may be toxic due to caryophyllene oxide and derivatives. The seed (fixed) oil is relatively safe. Other extracts including resin are prohibited from use as food.	Some cultivars may contain high amount of caryophyllene oxide in EO. 2.5 g or 3 ml of EO may be fatal.	Monzote, L., Stamberg, W., Staniek, K., & Gille, L. (2009). Toxic effects of carvacrol, caryophyllene oxide, and ascaridole from essential oil of Chenopodium ambrosioides on mitochondria. Toxicology and applied pharmacology, 240(3), 337-347. Mediavilla, V., & Steinemann, S. (1997). Essential oil of Cannabis sativa L. strains. J. Int. Hemp Assoc, 4, 80-82.; Anwar, F., Latif, S., & Ashraf, M. (2006). Analytical characterization of hemp (Cannabis sativa) seed oil from different agro-ecological	Frohne D., Pfänder H.J. and Anton R. 2009. Plantes à risques. Ed. Tec et Doc-Lavoisier, ISBN: 978-2-7430-0907-1Bruneton J. 2009. Pharmacognosie, (Phytochimie, Plantes médicinales), Ed. Tec & Doc, Lavoisier, Paris, 4ème édition, ISBN: 978-2-7430-1188-8

									zones of Pakistan. Journal of the American Oil Chemists' Society, 83(4), 323-329.	

Centranthus ruber(L.) DC	Caprifoliaceae		root			Valepotriates: e.g. homoacevaltrate, desisovaleryl acetyl valtrate. Cytotoxicity of valepotriates.	Toxicity due to valpotriates. No food use, toxicity at 40 mg of plant extract.	Toxic level of valepotriates is 40 mg daily.	Bos, R., Woerdenbag, H. J., Van Putten, F. M., Hendriks, H., & Scheffer, J. J. (1998). Seasonal variation of the essential oil, valerenic acid and derivatives, and velopotriates in Valeriana officinalis roots and rhizomes, and the selection of plants suitable for phytomedicines. *Planta medica*, *64*(2), 143-147.	Andrea M. Doyle ,et al.2004.Nature's Sedative: Isolation and Structural Elucidation of Valtrate from Centranthus ruber.J. Chem. Educ., 81 (10), 1486.Manolov P, Marekov N. 1981.Pharmacological studies of Centranthus ruber.Pharmacological studies of Centranthus ruber.Eksp Med Morfol.20(1):43-46.

Commiphora myrrha (Nees) Engl.	Burseraceae		oleo-gum-resin	Oleo-gum-resin from the trunk	Volatile fraction: furanosesquiterpenes: e.g. curzerenone, methoxy-furanodiene, furanoelemenes, furano-germacranes	Volatile fraction present only in the freshly collected oleogum resin Hepato-nephropathy described when doses above 2 gram ingested	EO and resins are rich in furanosesquiterpenes with opioid effects. Toxic effect is achieved with 2 g of plant material devoid of EO		Marongiu, B., Piras, A., Porcedda, S., & Scorciapino, A. (2005). Chemical composition of the essential oil and supercritical CO2 extract of Commiphora myrrha (Nees) Engl. and of Acorus calamus L. Journal of Agricultural and food chemistry, 53(20), 7939-7943.; Dolara, Piero; Luceri, Cristina; Ghelardini, Carla; Monserrat, Claudia; Aiolli, Silvia; Luceri, Francesca; Lodovici, Maura; Menichetti, Stefano; Romanelli, Maria Novella (1996). "Analgesic effects of	Omer SA et al. 1999. Effects on rats of Commiphora myrrha extract given by different routes of administration. Vet. Hum. Toxicol. 41(4), 193-6. Wichtl M. and Anton R. 2003. Plantes thérapeutiques ,Ed. Tec & Doc, Lavoisier, Paris, 2ème édition, 692 pages, ISBN : 2-7430-0631-5

									myrrh". *Nature* **379** (6560): 29.	

Eschscholtzia californica Cham.	Papaveraceae		aerial part	aerial part	Isoquinoline alkaloids (0.29 to 0.38% of dry herb) with as main alkaloid californidine (0.19% - 0.23%)		Toxicity due to quinoline alkaloids. Content should be stated.	Quinoline alkaloids are therapeutic at dose of 42 mg daily in adults. May have cardiovascular effects	Michael, J. P. (2002). Quinoline, quinazoline and acridone alkaloids. Natural product reports, 19(6), 742-760.; Wolfe, M. S., & Cordero, J. F. (1985). Safety of chloroquine in chemosuppression of malaria during pregnancy. BMJ, 290(6480), 1466-1467.	Gafner S et al. 2006. Alkaloids from Eschscholzia californica and their capacity to inhibit binding of [3H]8-Hydroxy-2-(di-N-propylamino) tetralin to 5-HT1A receptors in vitro. J. Nat. Prod., 69, 432-435. Proença da Cunha A. et al. 2003. Plantas e Produtos Vegetais em Fitoterapia. Fundação Calouste Gulbenkian, Lisboa. ISBN: 978-972-31-1010-4. Bruneton J. 2009. Pharmacognosie, (Phytochimie, Plantes médicinales), Ed. Tec & Doc, Lavoisier, Paris, 4ème édition, ISBN:

										978-2-7430-1188-8

Galega officinalis L	Leguminosae		aerial part	aerial part	Guanidine derivatives: e.g. galegine (in herb 0.1%-0-3%; in seed up to 0.5%), peganine	Galegine and peganine have a hypoglycemic activity	Potentially toxic. Not advisable to be used as food supplement.	Several potential effects with toxicity: An increase in serum levels of cholesterol, creatine phosphokinase, lactate dehydrogenase and total and conjugated bilirubin and a decrease in calcium, albumin, albumin/globulin ratio, hematocrit, WBC and platelet counts.	Rasekh, H. R., Nazari, P., Kamli-Nejad, M., & Hosseinzadeh, L. (2008). Acute and subchronic oral toxicity of Galega officinalis in rats. *Journal of ethnopharmacology*, *116* (1), 21-26.	Bruneton J. 2005. Plantes toxiques (Végétaux dangereux pour l'homme et les animaux), Ed. Tec & Doc, Lavoisier, Paris, 3ème édition, 618 pages, ISBN : 2-7430-0806-7. Rasekh, H.R. et al. 2008. Acute and subchronic oral toxicity of Galega officinalis in rats. J. Ethnopharmacol 116 (1): 21-26.. Hagers Handbuch der Pharmazeutischen Praxis 1998. Springer Verlag. ISBN 3-540-52688-11.

Gaultheria procumbens L.	Ericaceae		aerial parts	aerial part	Free and bound salicylate derivatives (10mg/g); Essential oil from leaf: methyl salicylate (98%)	Gaultherine: a disacharide conjugate with methylsalicylate and the precursor of methylsalicylate and salicylic acid	EO toxic due to salicylate content. Toxicity with 0.015 ml of oil. Not for internal use. Cases of intoxication with Gaultheria (wintergreen) oil.	Daily dose of dietary salicylates should not exceed 15.3 mg but sensitive subjects may react to 2.6 mg daily.	Baxter, E. H., Hartwell, R. M., & Reck, L. E. (1938). Methyl Salicylate Poisoning. Journal of the American Medical Association, 111(27), 2476-2477.; Corder, E. H., & Buckley, C. E. (1995). Aspirin, salicylate, sulfite and tartrazine induced bronchoconstriction. Safe doses and case definition in epidemiological studies. *Journal of clinical epidemiology*, *48*(10), 1269-1275.	Ribnicky D.M et al. 2003. The Determination of Salicylates in Gaultheria procumbens for Use as a Natural Aspirin Alternative. Journal of Nutraceuticals, Functional & Medical Foods, Vol. 4(1)39-52. Bruneton J. 2009. Pharmacognosie, (Phytochimie, Plantes médicinales), Ed. Tec & Doc, Lavoisier, Paris, 4ème édition, 1269 pages, ISBN: 978-2-7430-1188-8. Tisserand R. and Balacs T. 1995. Essential oil safety. A Guide for Health Care Professionals. Churchill Livingstone. Edinburgh. ISBN:

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Gossypium herbaceum L.	Malvaceae		pilus, root, seed	whole plant	Gossypol, a triterpenoid aldehyde, is found in all Gossypium species	Human data on oral ingestion of gossypol as an male antifertility drug showed irreversible sterility in some of the treated men and hypokalaemia was another finding. There are cultivars without gossypol in the seeds	Presence of ergot alkaloids in roots. Not permitted in food supplements.		Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. *Annali dell'Istituto superiore di sanità*,*46*(4), 370-388.	Percy RG, Calhoun MC, Kim HI (1996) Seed gossypol variation within Gossypium barbadense L. cotton. Crop Sci: 36: 193-197. Waites GMH, Wang C, Griffin PD. (1998) Gossypol: reasons for its failure to be accepted as a safe, reversible male antifertility drug. Int J Androl 21: 8-12
Harpagophytum procumbens (Burch.) DC.	Pedaliaceae		secondary tuber			Iridoïdglycosides (1.3%-2.5%): e.g. harpagoside, isoharpagoside, harpagide en procumbide.	Toxicity may be due to the content of iridoid glycosides (90 mg of plant extract). Content should be declared. No food use.	Iridoid glycoside toxicity is at 2.2 mg daily for an adult.	Nahrstedt, A. (2003). New and known iridoid-and phenylethanoid glycosides from Harpagophytum procumbens and their in vitro inhibition of human leukocyte elastase. *Planta Med*, *69*,	

									820-825.	
Harpagophytum zeyheri Decne.	Pedaliaceae		root, tuber			Iridoids: e.g. harpagoside, harpagide,	Toxicity may be due to the content of iridoid glycosides (140 mg of plant extract). Content should be declared. No food use.	Iridoid glycoside toxicity is at 2.2 mg daily for an adult.	Nahrstedt, A. (2003). New and known iridoid-and phenylethanoid glycosides from Harpagophytum procumbens and their in vitro inhibition of human leukocyte elastase. *Planta Med*, 69, 820-825.	

Hibiscus sabdariffa L.	Malvaceae		branch, flower, leaf, seed	calyx	Oxalic acid (0.55%)	Oxalic acid proven to induce reproductive toxicity. Decreased epididymal sperm count observed in rats with an aqueous extract of calices. Histological changes of the testicular structure. Orally dosing of an hydro-alcoholic extract of the calyces to rats showed increased levels of some enzymes that may indicate liver injury. Water and alcoholic extracts of the calyces in doses of 300 or 2000 mg/kg body weight/day orally to rats for 90 days caused up to 80% death in some groups.	Toxicity due to oxalate content in fruit. Should be declared. Seeds should not be consumed as food supplement. Fruit may have effects on liver enzymes.	Oxalate intake should not exceed 45-90 mg/day. Should be consumed under medical supervision. Unknown constituents with potentially toxic effects on liver.	Ali, B. H., Wabel, N. A., & Blunden, G. (2005). Phytochemical, pharmacological and toxicological aspects of Hibiscus sabdariffa L.: a review. Phytotherapy research, 19(5), 369-375.; Calmes, J., Pommerol, P. D., Pulou, R., & Carles, J. (1970). Structure et repartition des cristaux d'oxalate de calcium chez la vigne vierge (Parthenocissus tricuspidata Planchon). Acad Sci Compt Rend Ser D.;	Al Shoosh.1993. Chemical Composition of some Roselle (Hibiscus sabdariffa) genotypes. Thesis 1993. University of Khartoum. Akaindahunsi A.A. and Olaleye M.T. 2003. Toxicological investigation of aqueous-methanolic extract of the calyces of Hibiscus sabdariffa. J. Ethnopharmacol. 89, 161-164. Fakey T.O. et al. 2009. Toxic effects of oral administration of extracts of dried calyx of Hibiscus sabdariffa Linn. (Malvaceae). Phytother. Res. 23, 412-416. Dushyant K. Gulati et al. 1997. Reproductive

										toxicology. Oxalic acid. Environ Health Perspect. 105 (Suppl 1): 229–230. Orisakwe OE et al. 2004. Testicular effeccts of sub-chronic administratio n of Hibiscus sabdariffa calyx aqueous extract in rats. Reprod. Toxicol.18, 295-298.

Hydrangea arborescens L.	Hydrangeaceae		leaf,root	root	Quinazoline alkaloids (0.1%): e.g. febrifugin (beta-dichroine), isofebrifugin (alpha-dichroine) and gamma-dichroine. Also dichroidine, 4-quinazolone, umbeliferone (dichrin A,7-hydroxycoumarin) and dichrin B.	Genus in which some species contain coumarins and isocoumarins e.g. hydrangenol, iridoid glycosides, cyanogenic glycosides and quinazolidinic alkaloids e.g.febrifugine. Allergenicity.	EO toxic due to the quinazoline alkaloid and coumarin content. Not advisable as food supplement	Limit for coumarin use: 0.1 mg/kg bw/day; (e.g. 6 mg/day at body weight of 60 kg). Should be consumed under medical supervision	Palmer, K. H. (1963). The structure of hydrangin. Canadian Journal of Chemistry, 41 (9), 2387-2389.; European Food Safety Authority. Opinion of the Scientific Panel on food additives, flavourings, processing aids and material in contact with food (AFC) on a request from the Commission related to coumarin. Question number EFSA-Q-2003-118. The EFSA Journal 2004;104:1-36.	Frohne D., Pfänder HJ.and Anton R. 2009. Plantes à risques, 460 pages, Ed.Tec&Doc Lavoisier ISBN : 978-2-7430-0907-1

Hypericum perforatum L.	Hyperaceae		aerial part	aerial part	Dianthrones and derivatives: e.g. hypericin, pseudo-hypericin; prenylated phloroglucinol derivative: e.g. hyperforin; xanthone derivatives.		Hypericum preparations should be considered as prescription only medicines.	Herbal Medicine. Hypericum is poisonous and not advisable to eat unsupervised. Skin sensitisation in fair-skin patients when exposed to UV light. Not recommended in pregnancy, but is safe in lactation	Greeson, J. M., Sanford, B., & Monti, D. A. (2001). St. John's wort (Hypericum perforatum): a review of the current pharmacological, toxicological, and clinical literature. *Psychopharmacology*, *153*(4), 402-414.	Bruneton J. 2009. Pharmacognosie, (Phytochimie, Plantes médicinales), Ed. Tec & Doc, Lavoisier, Paris, 4ème édition. ISBN : 978-2-7430-1188-8
Ledum palustre L.	Ericaceae		aerial part	aerial part	Essential oil (0.3%-2.5%): sesquiterpene alcohols: ledol and palustrol	High doses of ledol may paralyse the CNS. Diterpenes: e.g. acetylandromedol only in old publications. Recent work could not prove the presence of diterpenes.	This plant has no food use.	Due to its toxicity, extracts must be administered under medical supervision.	Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. *Annali dell'Istituto superiore di sanità*,*46*(4), 370-388.	Frohne D. and Pfänder H.J. 1997. Giftpflanzen. Ein Handbuch für Apotheker, Ärzte, Toxikologen und Biologen. Wissenschaftliche Verlagsgesellschaft mbH. ISBN: 3-8047-1466-8.

Leonurus cardiaca L.	Lamiaceae (Labiatae)		aerial part	aerial part	Pyrrolidine alkaloids: e.g. stachydrine (0.5-1.5%), and cyclic peptide: cycloleonurine. The fresh herb may contain up to 4 mg/g of labdane diterpenes (e.g. leosibiricin)	Also guanidine alkaloid: leonurine (0.007%) (uterotonic)	Toxicity may be due to the content of iridoid glycosides, coumarins and alkaloids. Content should be declared. No food use and usually considered as herbal medicine only.	Limit for coumarin use: 0.1 mg/kg bw/day; (e.g.6 mg/day at body weight of 60 kg). Iridoid glycoside toxicity is at 2.2 mg daily for an adult. Medical supervision is required.	Ritter, M., Melichar, K., Strahler, S., Kuchta, K., Schulte, J., Sartiani, L., ... & Dhein, S. (2010). Cardiac and electrophysiological effects of primary and refined extracts from Leonurus cardiaca L.(Ph. Eur.). *Planta medica*, *76*(6), 572-582.	European Medicines Agency. 2010. Assessment report on Leonurus cardica L., herba. Draft. Newall C.A., Anderson L.A., Phillipson J.D. 1996. Herbal medicines: a guide for health care professionals. The Pharmaceutical Press. ISBN: 853692890.

Leonurus japonicus Houtt.	Lamiaceae		aerial part		Pyrrolidine alkaloids: e.g. stachydrine (0.1-0.2%). Cyclic peptide: cycloleonurinine. Labdane-type diterpenes : 3 alpha-acetoxy-15-O-methylleopersin C, leosibirinone A	Contains: flavonoids, monoterpene glucosides, coumarins, leonurenosides I and II, alkaloids, iridoid, lignan and phenolic compounds	Toxicity may be due to the content of iridoid glycosides, coumarins and alkaloids. Content should be declared. No food use and usually considered as herbal medicine only.	Limit for coumarin use: 0.1 mg/kg bw/day; (e.g.6 mg/day at body weight of 60 kg). Iridoid glycoside toxicity is at 2.2 mg daily for an adult. Medical supervision is required.	Cong, Y., Wang, J., Guo, H., & Li, X. (2002). Isolation and identification of the chemical constituents of Leonurus japonicus Houtt. Ⅱ. *Chinese Journal of Medicinal Chemistry*, *13* (6), 349-352.	Xiong L. et al. 2013. Chemical composition and antibacterial activity of essential oils from different parts of Leonurus japonicus Houtt. Molecules.18 (1): 963-973. Hyun Kyo Seo et al. 2010. Labdane Diterpenes and Flavonoids from Leonurus japonicus. Helvetica Chimica Acta – 93: 2045-2051. Li Y. et al. 2012. Hepatoprotective glycosides from Leonurus japonicus Houtt. Carbohydr Res. 348: 42-46. Chao Z. et al. 2004. Determination of stachydrine and leonurine in

										Herba Leonuri by ion-pair reversed-phase high-performance liquid chromatography. Di Yi Jun Yi Da Xue Xue Bao. 24 (11), 1223-11226. Chen Z. et al. 2010. Development and validation of an UPLC-DAD-MS method for the determination of leonurine in Chinese motherwort (Leonurus japonicus). J. Chromatogr. Sci. 48(10), 802-6.

Ligusticum striatum DC.	Apiaceae	Ligusticum chuanxiong S.H.Qiu, Y.Q.Zeng, K.Y.Pan, Y.C.Tang & J.M.Xu. Ligusticum wallichii Franch.	root	root	Beta carboline alkaloids: e.g. perlolyrine. Essential oil from the root: two progestins: 3,8-dihydro-diligustilide and riligustilde	Essential oil has a progestogenic effect. According the dose, progestogens may have androgenic and/or oestrogenic or anti-androgenic and/or anti-oestrogenic effects.	Harmane alkaloid content should be declared. If it exceeds 0.01% in extracts it may be toxic. When using the essential oil the amount of progestogens must be determined	Toxic dose if harmane alkaloids reach the general circulation at a dose of 2 mg. Interact with CNS agents at lower doses. harmala alkaloid extract is an ingredient of Ayahuasca (together with acacia and other dimethyl tryptamine plants).	Duke, J. A. (2008). *Duke's handbook of medicinal plants of Latin America*. CRC Press.; Zhang C et al. 2007. Analysis of the volatile compounds in Ligusticum chuanxiong Hort. using HS-SPME-GC-MS. J. Pharmaceut. Biomed. 44, 464-470.; When using the essential oil the amount of progestogens must be determined.	Lim L.S.S.A 2007. Cell based bioassay for the isolation and characterization of novel phytoprogestogens from Ligusticum chuanxiong and the detection of xenoestrogens/androgens from Singapore's marine environment. Ph.D. thesis. National University of Singapore. Lim L.S. et al. 2006. Dynamics of progestogenic activity in serum following administration of Ligusticum chuanxiong. Life Sci. 79, 1274-1280. Zhang C et al. 2007. Analysis of the volatile compounds in Ligusticum chuanxiong Hort. using

										HS-SPME-GC-MS. J. Pharmaceut. Biomed. 44, 464-470. Ran X. et al. 2011. Ligusticum chuanxiong Hort: a review of chemistry and pharmacology. Pharm Biol. 49 (11):1180-1189.

Liquidambar styraciflua L.	Altingiaceae		bark, exudate	exudate	Essential oil from balsam (extract from exudate): 31% styrene	International Agency for Research on Cancer has evaluated that styrene is possible carcinogenic to humans (Group 2 B)	The essential oil from the balsam has no food use.	EO should be administered under medical supervision	Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. *Annali dell'Istituto superiore di sanità*,*46*(4), 370-388.	Fernandez X. et al. 2005. Chemical composition of the essential oils from Turkish and Honduras styrax. Flavour Fragr. J. 20, 70-73. International Agency for Research on Cancer. 2002. Styrene. IARC Summary & Evaluation 82. European Commission. 2005. Health & Consumer protection Directorate-General. C7 - Risk assessment. Opinion on Liquidambar spp. Balsam Extracts and Oils (Storax). SCCP/0872/05.

Lycopodium clavatum L.	Lycopodiaceae		aerial part, spore	whole plant	Lycopodium alkaloids (0.1-0.4%): e.g. lycopodine, clavatine, clavatoxine	Lycopodine considered to be a central nerval system depressant. Spores do not contain the alkaloids	The moss is significantly toxic. Only the spores do not contain the alkaloids.	Club moss contains lycopodium alkaloids (e.g. lycopodine and analogues) with Acethylcholine inhibitory activity. These are potentiall neurotoxic	Orhan, I., Küpeli, E., Şener, B., & Yesilada, E. (2007). Appraisal of anti-inflammatory potential of the clubmoss, Lycopodium clavatum L. *Journal of ethnopharmacology*, *109* (1), 146-150.	Wichtl M. 2002. Teedrogen und Phytopharmaka. Ein Handbuch für die Praxis auf wissenschaftlicher Grundlage. Ed. Wissenschaftliche Verlagsgesellschaft mbH, ISBN: 3-8047-1854-X. Mandal SK et al. 2010. Lycopodine from Lycopodium clavatum extract inhibits proliferation of HeLa cells through induction of apoptosis via caspase-3 activation. J Pharmacol. 25;626(2-3):115-22.

Mastocarpus stellatus (Stackhouse) Guiry	Phyllophoraceae		thallus	thallus	Phenylethylamine: hordenine	Hordenine: may increase gastrin production	Not to be consumed as a food supplement.	A phenylalkylamine like ephedrine and other psychoactive and stimulant alkaloids.	Glen R. Hanson, Peter J. Venturelli, Annette E. Fleckenstein (3 November 2005). *Drugs and society (Ninth Edition)*. Jones and Bartlett Publishers. ISBN 978-0-7637-3732-0. Retrieved 19 April 2011.	Courtois A. et al.. 2008 Floridoside extracted from the red alga Mastocarpus stellatus is a potent activator of the classical complement pathway. Marine drugs 6(3) 407-417. Dewar E.T. , Percival E.G.V. 1947 The polysaccharides of carrageen.II The Gigartina stellata polysaccharide. J. of Chem. Soc. 1622-6

Melaleuca alternifolia (Maiden & Betche) Cheel	Myrtaceae		aerial part, essential oil	leaf	Essential oil of leaves: monoterpene etheroxide: 1,8 cineole (10-60%).	Essential oil: only traces of methyleugenol. Essential oil should not be taken internally (ataxia and coma). Only as flavouring.	EO toxic due to eucalyptol (1,8-cineole) content. Toxicity with 0.05 ml of oil. Content of eucalyptol should be declared for plant material used. No food use.	Limit for eucalyptol (1,8-cineole) use; 10 mg/kg of food (0.001%). Should not be taken internally.	Hart, P. H., Brand, C., Carson, C. F., Riley, T. V., Prager, R. H., & Finlay-Jones, J. J. (2000). Terpinen-4-ol, the main component of the essential oil of Melaleuca alternifolia (tea tree oil), suppresses inflammatory mediator production by activated human monocytes. Inflammation Research, 49(11), 619-626.; Council of Europe, Committee of Experts on Flavouring Substances. Natural sources of flavourings. Report No. 3. Belgium: Council of Europe Publishing; 2008	Hammer K.A. et al. 2006. A review of the toxicity of Melaleuca alternifolia (tea tree) oil. Food and Chemical toxicology. 44(5), 616-625 WHO monograph. Natural sources of flavourings (Rep No 3), Council of Europe, (2008)

Melaleuca cajuputi Powell	Myrtaceae		leaf, twig	leaf, twig	Essential oil from fresh leaves and twigs: 1,8 cineole (3%-60%).	Essential oil should not be taken internally (ataxia and coma). Only as flavouring.	EO toxic due to eucalyptol (1,8-cineole) content. Toxicity with 0.002 ml of oil. Content of eucalyptol should be declared for plant material used. No food use.	Limit for eucalyptol (1,8-cineole) use; 10 mg/kg of food (0.001%). Should not be taken internally.	Silva, C. J., Barbosa, L. C., Maltha, C. R., Pinheiro, A. L., & Ismail, F. (2007). Comparative study of the essential oils of seven Melaleuca (Myrtaceae) species grown in Brazil. Flavour and fragrance journal, 22(6), 474-478.; Council of Europe, Committee of Experts on Flavouring Substances. Natural sources of flavourings. Report No. 3. Belgium: Council of Europe Publishing; 2008; Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in	Rattanaburi S. et al. 2012 A new chromone from the leaves of Melaleuca cajuputi Powell. Natural Product Research, in press. Kim J.H. et al 2005 Essential leaf oils from Melaleuca cajuputi. Acta Horticulture, 680 (Proceedings of WOCMAP III: the IIIrd World Congress on Medicinal and aromatic plants 65-72.

									food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	

Melaleuca leucadendra (L.) L.	Myrtaceae	Melaleuca leucadendron (L.) L.	leaf	leaf	Essential oil: e.g. methyleugenol (96%), isomethyleugenol	Essential oil should not be taken internally (ataxia and coma). Only as flavouring.	EO toxic due to eucalyptol (1,8-cineole) content. Toxicity with 0.002 ml of oil. Content of eucalyptol should be declared for plant material used. No food use.	Limit for eucalyptol (1,8-cineole) use; 10 mg/kg of food (0.001%). Should not be taken internally.	Barbosa, L. C. A., Silva, C. J., Teixeira, R. R., Meira, R. M. S. A., & Pinheiro, A. L. (2013). Chemistry and biological activities of essential oils from Melaleuca L. species. Agriculturae Conspectus Scientificus (ACS), 78(1), 11-23.; Council of Europe, Committee of Experts on Flavouring Substances. Natural sources of flavourings. Report No. 3. Belgium: Council of Europe Publishing; 2008; Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in	Faraq R.S. 2004. Chemical and biological evaluation of the essential oils of different Melaleuca species. Phytotherapy research . 18(1), 30-35; Brophy JJ (1999) "Potentially Commercial Melaleucas" in Tea Tree – the Genus Melaleuca eds. Ian Southwell & Robert Lowe. Harwood Academic Publishers. Brophy et al. (1999) .J Essen Oil Rec 11, 327-332.

									food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	
Melaleuca linariifolia Sm.	Myrtaceae		leaf		Essential oil: e.g. 1,8 cineole. Main component terpinen-4-ol (30%)	There are 4 chemotypes. Essential oil: antiandrogen effect. Should not be taken internally (ataxia and coma). Only as flavouring.	EO toxic due to eucalyptol (1,8-cineole) content. Toxicity with 0.007 ml of oil. Content of eucalyptol should be declared for plant material used. No food use.	Limit for eucalyptol (1,8-cineole) use; 10 mg/kg of food (0.001%)	PENGELLY, A. Oils and Resins.; Council of Europe, Committee of Experts on Flavouring Substances. Natural sources of flavourings. Report No. 3. Belgium: Council of Europe Publishing;	Niewoehner, CB, Schorer, AE. 2008 . Gynaecomastia and breast cancer in men. BMJ. 336 (7646): 709-713. PDR for Herbal Medicines. 2004 Thomson ed. ISBN: 1-56363-5125-7 for Herbal Drug,

									2008; Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	2004 Thomson ed.
Melaleuca quinquenervia (Cav.) S.T. Blake	Myrtaceae		leaf, twig	leaf, twig	Essential oil: 1,8 cineole (up to 50%)	Several chemotypes basing on different composition of essential oil. Essential oil should not be taken internally (ataxia and coma). Only as flavouring.	EO toxic due to eucalyptol (1,8-cineole) content. Toxicity with 0.013 ml of oil. Content of eucalyptol should be declared for plant material used.	Limit for eucalyptol (1,8-cineole) use; 10 mg/kg of food (0.001%). Should not be taken internally.	Silva, C. J., Barbosa, L. C., Maltha, C. R., Pinheiro, A. L., & Ismail, F. (2007). Comparative study of the essential oils of seven Melaleuca (Myrtaceae) species grown in Brazil. Flavour and fragrance journal, 22(6), 474-478.; Council of Europe, Committee of Experts on	Ramanoelina P.A.R. et al. 2008. Main industrial niaouli (Melaleuca quinquenervia) oil chemotype productions from Madagascar. J. Essential oil Research 20(3), 261-262

									Flavouring Substances. Natural sources of flavourings. Report No. 3. Belgium: Council of Europe Publishing; 2008; Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	

Melaleuca viridiflora Sol. ex Gaertn.	Myrtaceae		leaf, twig	leaf, twig	Essential oil: 1,8 cineole (40%-70%)	Essential oil should not be taken internally (ataxia and coma). Only as flavouring.	EO toxic due to eucalyptol (1,8-cineole) content. Toxicity with 0.001 ml of oil. Content of eucalyptol should be declared for plant material used. No food use.	Limit for eucalyptol (1,8-cineole) use; 10 mg/kg of food (0.001%). Should not be taken internally.	; Council of Europe, Committee of Experts on Flavouring Substances. Natural sources of flavourings. Report No. 3. Belgium: Council of Europe Publishing; 2008; Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	Hellyer R.O; Lassak E.V. 1968. The steam-volatile constituents of Melaleuca viridiflora. Australian Journal of Chemistry 21(10) 2585-7

Myroxylon balsamum var. balsamum (L.) Harms	Leguminosae		trunk bark	tolu	resin (tolu balsam): benzoic and cinnamic acid and their esters.	volatile compounds of the balsam used topically and in very small amounts internally against cough. Varieties with analogue composition: Myroxylon balsamum var. balsamum (L.) Harms and Myroxylon balsamum var. pereirae (Royle) Harms. In tolu balsam there is free benzoic acid, known as an antiseptic.	Internal use is not advisable. Not even used as a flavouring agent.	Generally used externally by inhalation for cough and cold treatment. Internal use of the oil is not advisable due to the allergenic and potential toxicity by coniferyl benzoate, the main ingredient in the balsam.	Hausen, B. M., Simatupang, T., Bruhn, G., Evers, P., & Koenig, W. A. (1995). Identification of New Allergenic Constituents and Proof of Evidence for Coniferyl Benzoate in Balsam of Peru. *Dermatitis*, *6*(4), 199-208.; Luebke, W. (2011). Coniferyl benzoate. 4159-29-9	PDR for Herbal Medicines. 2004 Thomson ed. ISBN: 1-56363-5125-7. Bruneton J. 2009. Pharmacognosie, 1269 pages, Ed.Tec&Doc Lavoisier, ISBN : 978-2-7430-1188-8

Myroxylon balsamum var. pereirae (Royle) Harms	Leguminosae		trunk bark		resin (peru balsam): benzoic and cinnamic acid and their esters.	volatile compounds of the balsam used topically and in very small amounts internally against cough. Varieties with analogue composition: Myroxylon balsamum var. balsamum (L.) Harms and Myroxylon balsamum var. pereirae (Royle) Harms. In tolu balsam there is free benzoic acid, known as an antiseptic.	Internal use is not advisable. Not even used as a flavouring agent.	Generally used externally by inhalation for cough and cold treatment. Internal use of the oil is not advisable due to the allergenic and potential toxicity by coniferyl benzoate, the main ingredient in the balsam.	Hausen, B. M., Simatupang, T., Bruhn, G., Evers, P., & Koenig, W. A. (1995). Identification of New Allergenic Constituents and Proof of Evidence for Coniferyl Benzoate in Balsam of Peru. *Dermatitis*, *6*(4), 199-208.; Luebke, W. (2011). Coniferyl benzoate. 4159-29-9	PDR for Herbal Medicines. 2004 Thomson ed. ISBN: 1-56363-5125-7. Bruneton J. 2009. Pharmacognosie, 1269 pages, Ed.Tec&Doc Lavoisier, ISBN : 978-2-7430-1188-8

Nardostachys jatamansi (D. Don) DC.	Caprifoliaceae	Nardostachys grandiflora DC.	whole plant			Root: sesquiterpenes: e.g. valeranone (0.1%-1.2%), jatamansone; essential oil (0.3%-0.4%): e.g. nardosinone	Toxicity due to valpotriates. No food use, toxicity at 40 mg of plant extract.	Toxic level of valepotriates is 40 mg daily.	Dugaheh, M. A., Meisami, F., Torabian, Z., & Sharififar, F. (2013). Antioxidant effect and study of bioactive components of Valeriana sisymbriifolia and Nardostachys jatamansii in comparison to Valeriana officinalis. *Pak. J. Pharm. Sci*, 26(1), 53-58.	Amritpal Singh et al. 2009. Nardostachys jatamansi DC. Potential herb with CNS effects. Journal of Pharmaceutical Research and Health Care 1 (2): 276-290.
Nigella sativa L.	Ranunculaceae		seed	seed	Isoquinoline alkaloids: e.g. nigellimine	Essential oil of seeds (0,5%-1,5%): e.g. thymoquinone (3,8 %)	Toxicity due to quinoline alkaloids. Content should be stated. No food use.	Quinoline alkaloids are therapeutic at dose of 42 mg daily in adults. May have cardiovascular effects	Michael, J. P. (2002). Quinoline, quinazoline and acridone alkaloids. Natural product reports, 19(6), 742-760.; Wolfe, M. S., & Cordero, J. F. (1985). Safety of chloroquine in chemosuppression of malaria during pregnancy.	Moretti A. et al. 2004. Essential Oils of Nigella sativa L. and Nigella damascena L. Seed. J Ess Oil Res. May/Jun. Khader et al. 2009. In vitro toxicological properties of thymoquinone. Food Chem Toxicol. 47, 129-133.

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Passiflora incarnata L.	Passifloraceae		aerial part		In some samples were found indole alkaloids (0.01-0.09%), mainly harman, harmaline, harmine; cyanogenic glycosides (gynocardin);	Harmane alkaloids were found in samples from cultivation in green houses but not when cultivated in open air.	Harmane alkaloid content should be declared. If it exceeds 0.01% in extracts it may be toxic	Toxic dose if harmane alkaloids reach the general circulation at a dose of 2 mg. Interact with CNS agents at lower doses. harmala alkaloid extract is an ingredient of Ayahuas	Duke, J. A. (2008). *Duke's handbook of medicinal plants of Latin America*. CRC Press.	Wichtl M. , Anton R. (2003) « Plantes thérapeutiques », 689 pages, Ed. Tec & Doc Lavoisier, Paris, 2ème édition, ISBN 2-7430-0631-5

								ca (together with acacia and other dimethyl tryptamine plants).		

Perilla frutescens (L.) Britton	Lamiaceae		leaf, seed	leaf, seed	Essential oil depends on the chemotype. Perilla ketone chemotype contains the toxic perilla ketone.	Perilla aldehyde chemotype and Perilla ketone chemotype. Perilla aldehyde may be mutagenic.	Toxicity due to the furanoditerpenoids in the fruit		Sims, R. J. (1981). *Synthesis of furanosesquiterpenoid natural products*(Doctoral dissertation, University of Southampton).; Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	Koezuka Y. et al. 1985. An intestinal propulsion promoting substance from Perilla frutescens and its mechanism of action. Planta Med. 6:480-482. Seto T.A. and Keup W. 1969. Effects of alkylmethoxybenzene and alkylmethylenedioxybenzene essential oils on pentobarbital and ethanol sleeping time. Arch. Int. Pharmacodyn. 180:323-240.

Physalis alkekengi L.	Solanaceae		fruit	fruit, root	Tropane alkaloids in root (0.09-0.1%): e.g. 3-alpha-tigloyloxyytropane, phygrine, cuscohygrine	Anti-estrogen activity of fruit. Decreased sperm count in rats. Could be due to the steroids (physalins)? Dose used 150mg/KG BW of ethanolic extract. Extract not defined.	The leaf contains tropane alkaloids of the atropine/cocaine group. Daily dose of 0.1 mg is considered to be therapeutic. Content should be stated.	Atropine and related tropane alkaloids are toxic at concentrations of 0.4 to 0.6 mg in adults.	De Simone, R., Margarucci, L., & De Feo, V. (2008). Tropane alkaloids: an overview. *Pharmacology online*, *1*, 70-89.;Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	Basey K. and Woolley J.G. 1973. Alkaloids of Physalis alkekengi. Phytochem Rep 12, 2557-2559. Basey K. et al. 1992. Phygrine, an alkaloid from Physalis alkekengi species. Phytochem. 31, 4173-4176. Montaserti A. et al. 2007. Anti-fertility effects of physalis alkekengi alcoholic extract in female rat. Iranian J Reprod Med 5, 13-16. Vessal M. et al. 1991. Effects of an aqueous extract of Physalis alkekengi fruit on estrus cycle, reproduction and uterine creatine kinase BB-isoenzyme in rats. J

										Ethnopharmacol 34, 69-78.

Physalis peruviana L.	Solanaceae		whole plant	unripe fruit, root	unripe fruit: solanine ; root: secotropane alkaloids: eg physoperuvine, tigloidine	Fruits are food. Unripe fruit said to contain solanine in quantities to cause gastroenteritis and diarrhoea. Aerial parts: withanolides with 4- beta-hydroxywithanolide present (0.8 mg/g) having chemoprotective properties.	The leaf contains tropane alkaloids of the atropine/cocaine group. Daily dose of 0.1 mg is considered to be therapeutic. Content should be stated.	Atropine and related tropane alkaloids are toxic at concentrations of 0.4 to 0.6 mg in adults.	De Simone, R., Margarucci, L., & De Feo, V. (2008). Tropane alkaloids: an overview. *Pharmacology online*, *1*, 70-89.;Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	Lampe, K. F., McCann, M. A. 1985. AMA Handbook of poisonous and injurious plants. American Medical Assoc. Chicago, Ill., USA. . Yen et al. BMC Cancer 2010, 10:46; Griffin WJ, Lin GD. Chemotaxonomy and geographical distribution of tropane alkaloids. Phytochemistry 2000;53(6):623-637.

Pogostemon cablin (Blanco) Benth.	Lamiaceae		leaf			Patchouli	The leaves of this plant have no food use.	Toxicity due to EO constituents: beta-Patchoulene, Pogostone, Patchouli alcohol, and others.	Hu, L. F., Li, S. P., Cao, H., Liu, J. J., Gao, J. L., Yang, F. Q., & Wang, Y. T. (2006). GCA751:J751–MS fingerprint of Pogostemon cablin in China. Journal of pharmaceutical and biomedical analysis, 42(2), 200-206.; Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	

Tribulus terrestris L.	Zygophyllaceae		whole plant	whole plant	β-carboline alkaloids (40-80 mg/kg dry matter), e.g. harmane and norharmane. Lithogenic steroidal saponins: e.g. protodioscin. Mycotoxin: sporidesmin	Central Nervous System toxicity observed in sheep. Hepatotoxicity observed in male rats after oral administration of the fruit. Reported effect on testosterone levels and prostate weight following administration of a fruit extract with high protodioscin level to castrated male rats.	Considered as Prescription Only Medicine Leaf extracts (750-1500 mg/day); Fruit and root extracts 2-30 g/day	The most important constituent that influences sexual behaviour is protodioscin. This possible increases levels of dehydroepiandrosterone (DHEA) and testosterone Should be avoided in persons suffering from androgen-sensitive tumours.	Gauthaman, K., Ganesan, A. P., & Prasad, R. N. V. (2003). Sexual effects of puncturevine (Tribulus terrestris) extract (protodioscin): an evaluation using a rat model. *The Journal of Alternative & Complementary Medicine*, 9(2), 257-265.	Bourke C.A. et al. 1992. Locomotor effects in sheep of alkaloids identified in Australian Tribulus terrestris. Aust. Vet. J. 69, 163-165. Dinchev D. et al. 2008. Distribution of steroidal saponins in Tribulus terrestris from different geographical regions. Phytochemistry. 69, 176-186. Gauthaman K. et al. 2002. Aphrodisiac properties of Tribulus terrestris extract (protodioscin) in normal and castrated rats. Life. Sci. 71, 1385-1396. Paula-Lopes TRV et al. 2006. Hepatotoxicity of medicinal plants. XXXIII.

										Action of Tribulus terrestris L. in rats. Rev Bras Pl Med 8, 4: 150-156. Kellerman TS et al. 1980. Photosensitivity in South Africa. II. The experimental production of the ovine hepatogenous photosensitivity disease geeldikkop (Tribulosis ovis) by the simultaneous ingestion of Tribulus terrestris plants and cultures of Pithomyces chartarum containing the mycotoxin sporidesmin. Onderstepoort J Vet Res. 47(4):231-61.

Trifolium pratense L.	Leguminosae		aerial part	aerial part	Isoflavones: daidzein, genistein, formononetin, biochanin		Phytoestrogens. Contains cyanogenic glycosides and coumarin derivatives. As a medicine and not a food.	Presribed in post menopausal women. Therapeutic at 40-80 mg/day.	Fugh-Berman, A., & Kronenberg, F. (2001). Red clover (Trifolium pratense) for menopausal women: current state of knowledge. *Menopause*, *8*(5), 333-337.; Del Giorno, C., Da Fonseca, A. M., Bagnoli, V. R., de Assis, J. S., Soares Jr, J. M., & Baracat, E. C. (2010). Effects of Trifolium pratense on the climacteric and sexual symptoms in postmenopausal women. Revista da Associaçao Médica Brasileira, 56(5), 558-562.	PDR for Herbal Medicines, 2000 II edition Medical Economics Company ISBN 1-56363-361-2

Valeriana jatamansi Jones	Valerianaceae	Valeriana wallichii DC.	root			Acylated iridoids: jatamanvaltrates A−M ; valepotriates	Toxicity due to valpotriates. No food use, toxicity at 40 mg of plant extract.	Toxic level of valepotriates is 40 mg daily.		Sheng Lin et al. 2009. Acylated Iridoids with Cytotoxicity from Valeriana jatamansi. J. Nat. Prod., 72 (4): 650–655.
Valeriana officinalis L.	Caprifoliaceae		root			Essential oil (0.3-0.7%): monoterpenes e.g. bornyle acetate, sesquiterpenes. Iridoids: valepotriates (0.5-2%) e.g. valtrate, dihydrovaltrate, acevaltrate. Sesquiterpene acids (0.08-0.3%) e.g. valerenic, acetoxyvalerenic acids	Toxicity due to valpotriates. No food use, toxicity at 40 mg of plant extract.	Toxic level of valepotriates is 40 mg daily.	Bos, R., Woerdenbag, H. J., Van Putten, F. M., Hendriks, H., & Scheffer, J. J. (1998). Seasonal variation of the essential oil, valerenic acid and derivatives, and velopotriates in Valeriana officinalis roots and rhizomes, and the selection of plants suitable for phytomedicines. *Planta medica*, *64*(2), 143-147.	Bruneton J. 2009. Pharmacognosie, (Phytochimie, Plantes médicinales), Ed. Tec & Doc, Lavoisier, Paris, 4ème édition, ISBN: 978-2-7430-1188-8 PT

Viscum album L.	Santalaceae		branch, leaf	Whole plant	Peptides: viscotoxins (I, II, III) and glycoproteins : viscum lectins	No toxicity by oral intake.	The leaves and other aerial parts are very toxic	Viscotoxins	Schaller, G., Urech, K., & Giannattasio, M. (1996). Cytotoxicity of different viscotoxins and extracts from the European subspecies of Viscum album L.*Phytotherapy Research*, *10*(6), 473-477.; Carratù, B., Federici, E., Gallo, F. R., Geraci, A., Guidotti, M., Multari, G., ... & Sanzini, E. (2010). Plants and parts of plants used in food supplements: an approach to their safety assessment. Annali dell'Istituto superiore di sanità,46(4), 370-388.	Frantz M et al, (2000) Modulation of mistletoe (Viscum album L.) lectins cytotoxicity by carbohydrates and serum glycoproteins , Arzneimittel Forschung , Drug Research 50 (I), 471-478 , RIBEREAU-GAYON, G. et al, (1996) Mistletoe lectins I, II and III induce the production of cytokines by cultured human monocytes, Cancer Lett. 109, 33-38. Hagers Handbuch der Pharmazeutischen Praxis, Springer Verlag, 1998. ISBN: 3-540-52688-9. Bruneton J. 2005. Plantes toxiques (Végétaux dangereux

										pour l'homme et les animaux), Ed. Tec & Doc, Lavoisier, Paris, 3ème édition, ISBN : 2-7430-0806-7.