

13.02

13.02 - Vegetable saps and extracts; pectic substances, pectinates and pectates; agar-agar and other mucilages and thickeners, whether or not modified, derived from vegetable products.

- Vegetable saps and extracts :

1302.11 - - Opium

1302.12 - - Of liquorice

1302.13 - - Of hops

1302.19 - - Other

1302.20 - Pectic substances, pectinates and pectates

- Mucilages and thickeners, whether or not modified, derived from vegetable products :

1302.31 - - Agar-agar

1302.32 - - Mucilages and thickeners, whether or not modified, derived from locust beans, locust bean seeds or guar seeds

1302.39 - - Other

(A) Vegetable saps and extracts.

The heading covers saps and extracts (vegetable products usually obtained by natural exudation or by incision, or extracted by solvents), **provided** that they are not specified or included in more specific headings of the Nomenclature (see list of exclusions at the end of Part (A) of this Explanatory Note).

These saps and extracts differ from the essential oils, resinoids and extracted oleoresins of heading 33.01, in that, apart from volatile odoriferous constituents, they contain a far higher proportion of other plant substances (e.g., chlorophyll, tannins, bitter principles, carbohydrates and other extractive matter).

The saps and extracts classified here include :

- (1) **Opium**, the dried sap of the unripe capsules of the poppy (*Papaver somniferum*) obtained by incision of, or by extraction from, the stems or seed pods. It is generally in the form of balls or cakes of varying size and shape. However, concentrates of poppy straw containing not less than 50 % by weight of alkaloids are **excluded** from this heading (see Note 1 (f) to this Chapter).
- (2) **Liquorice** extracted from the dried roots of a plant of the *Leguminosae* family (*Glycyrrhiza glabra*) by hot water under pressure and then concentrated. It may be in liquid form or in blocks, cakes, sticks, slices or powder. (Liquorice containing more than 10 % by weight of sucrose, or put up (i.e., prepared) as confectionery whatever the sugar content, is **excluded**, see heading 17.04.)
- (3) **Extract of hops.**
- (4) **Pyrethrum extract**, obtained mainly from the flowers of various pyrethrum varieties (e.g., *Chrysanthemum cinerariaefolium*) by extraction with an organic solvent such as normal hexane or "petroleum ether".

- (5) **Extracts of the roots of plants containing rotenone** (derris, cubé, timbo, barbasco, etc.).
- (6) **Extracts and tinctures of any plant of the genus Cannabis.**
Cannabis resin, whether crude or purified, is **excluded (heading 13.01)**.
- (7) **Ginseng extract**, obtained by water or alcohol extraction, whether or not put up for retail sale.
Mixtures of ginseng extract with other ingredients (e.g., lactose or glucose) used for the preparation of ginseng “tea” or beverage are **excluded (heading 21.06)**.
- (8) **Aloes**, a thickened sap with a very bitter taste, obtained from several varieties of the plant with the same name (*Liliaceae* family).
- (9) **Podophyllum**, a resinous substance extracted by alcohol from the dried rhizomes of *Podophyllum peltatum*.
- (10) **Curare**, an aqueous extract from the leaves and bark of various plants of the *Strychnos* family.
- (11) **Quassia amara** extract, obtained from the wood of the shrub of the same name (*Simaroubaceae* family), which grows in South America.
Quassin, the principal bitter extract of the wood of the *Quassia amara*, is a heterocyclic compound of **heading 29.32**.
- (12) **Other medicinal extracts**, e.g., belladonna, black alder (alder buckthorn), cascara sagrada, garlic, gentian, jalap, cinchona, rhubarb, sarsaparilla, tamarind, valerian, pine buds, coca, colocynth, male fern, witch hazel, henbane, ergot of rye.
- (13) **Manna**, a solid, sweet sap obtained by incision from certain varieties of ash tree.
- (14) **Bird lime**, the viscous and stringy glue, greenish in colour, extracted from mistletoe berries or holly.
- (15) **Aqueous extract** obtained from cassia pulp. Cassia pods and cassia pulp are, however, **excluded (heading 12.11)**.
- (16) **Gum kino**, a thickened sap of certain tropical trees used in tanning and medicine.
- (17) **Japan (or Chinese) lacquer** (natural lacquer), a sap obtained by incision from certain species of shrubs known as rhus (urushi) growing in the Far East (e.g., *Rhus vernicifera*). It is used for coating or decorating various articles (trays, chests, etc.).
- (18) **Papaw juice**, whether or not dried, but not purified as papain enzyme. (The agglomerated latex globules can still be observed on microscopic examination.) Papain is **excluded (heading 35.07)**.
- (19) **Cola (kola) extract**, obtained from cola nuts (seeds of various *Cola* species, e.g., *Cola nitida*) and used mainly in the manufacture of certain beverages.
- (20) **Cashew nutshell extract**. The polymers of cashew nutshell liquid extract are, however, **excluded (generally heading 39.11)**.

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- (21) **Vanilla oleoresin** (sometimes erroneously known as “vanilla resinoid” or “vanilla extract”).

Saps are usually thickened or solidified. **Extracts** may be in liquid, paste or solid form. “**Tinctures**” are extracts still dissolved in the alcohol by means of which they are extracted; the so-called “**fluid extracts**” are solutions of extracts in, for example, alcohol, glycerol or mineral oil. Tinctures and fluid extracts are generally standardised (for instance, pyrethrum extract may be standardised by adding mineral oil to produce commercial grades with a standard pyrethrins content of, e.g., 2 %, 20 % or 25 %). **Solid extracts** are obtained by evaporating the solvent. Inert substances are sometimes added to certain extracts so that they can be more easily reduced to powder (e.g., belladonna extract, to which powdered gum Arabic is added), or to obtain a standard strength (for instance, certain quantities of starch are added to opium in order to obtain a product containing a known portion of morphine). The addition of such substances does not affect the classification of these solid extracts.

Extracts may be simple or compound. Simple extracts are obtained by the treatment of only one variety of plant. Compound extracts are obtained either by mixing simple extracts or by treating mixtures of different varieties of plants. Compound extracts (whether in the form of alcoholic tinctures or in any other forms) therefore contain the constituents of several kinds of plant; they include compound jalap extract, compound extract of aloes, compound extract of cinchona, etc.

The vegetable saps and extracts of this heading are generally raw materials for various manufactured products. They are **excluded** from the heading when, because of the addition of other substances, they have the character of food preparations, medicaments, etc.

Certain products of this heading, which are regarded as narcotic drugs under international instruments, are indicated in the list appearing at the end of Chapter 29.

Examples of **excluded** preparations are :

- (i) **Flavoured syrups** containing vegetable extracts (**heading 21.06**).
- (ii) **Preparations used for making beverages**. These preparations are obtained by compounding vegetable extracts of this heading with lactic acid, tartaric acid, citric acid, phosphoric acid, preserving agents, foaming agents, fruit juices, etc., and sometimes with essential oils. The preparations thus obtained are generally classified in **heading 21.06** or **33.02**.
- (iii) **Medicinal preparations** (some of which are also known as “tinctures”) consisting of mixtures of vegetable extracts with other products (e.g., preparations which consist of a mixture of extract of capsicum, spirits of turpentine, camphor and methyl salicylate, or of a mixture of tincture of opium, anise oil, camphor and benzoic acid) (**heading 30.03** or **30.04**).
- (iv) **Intermediate products for the manufacture of insecticides**, consisting of pyrethrum extracts diluted by addition of mineral oil in such quantities that the pyrethrins content is less than 2 %, or with other substances such as synergists (e.g., piperonyl butoxide) added (**heading 38.08**).

The heading also **excludes** vegetable extracts which have been mixed or compounded (without the addition of other substances) for therapeutic or prophylactic purposes. Such mixtures, and similar medicinal compound extracts made by treating a mixture of plants, are classified in **heading 30.03** or **30.04**. That latter heading also covers simple vegetable extracts (whether or not standardised or dissolved in any solvent) when put up in measured doses for therapeutic or prophylactic purposes or in forms or packings for retail sale for such purposes.

The heading **excludes** essential oils, resinoids and extracted oleoresins (**heading 33.01**). **Essential oils** (which may also be obtained by solvent extraction) differ from the extracts classified under this heading in that they are essentially composed of volatile odoriferous substances. **Resinoids** differ from the extracts of this heading in that they are obtained by the organic solvent or super-critical fluid (e.g., carbon dioxide gas under pressure) extraction of dried natural non-cellular vegetable or animal resinous materials. **Extracted oleoresins** differ from the extracts provided for in this heading in that they (1) are obtained from natural cellular raw plant materials (almost always spices or aromatic plants), either by organic solvent extraction or by super-critical fluid extraction, and (2) contain volatile odoriferous principles together with non-volatile flavouring principles, which define the characteristic odour or flavour of the spice or aromatic plant.

The heading further **excludes** the following vegetable products, classified under more specific headings of the Nomenclature :

- (a) Natural gums, resins, gum-resins and oleoresins (**heading 13.01**).
- (b) Malt extract (**heading 19.01**).
- (c) Extracts of coffee, tea or maté (**heading 21.01**).
- (d) Vegetable saps and extracts constituting alcoholic beverages (**Chapter 22**).
- (e) Tobacco extracts (**heading 24.03**).
- (f) Camphor (**heading 29.14**) and glycyrrhizin and glycyrrhizates (**heading 29.38**).
- (g) Extracts used as blood-grouping reagents (**heading 30.06**).
- (h) Tanning extracts (**heading 32.01**).
- (ij) Dyeing extracts (**heading 32.03**).
- (k) Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums (**heading 40.01**).

(B) Pectic substances, pectinates and pectates.

Pectic substances (generally known in commerce as “pectins”) are polysaccharides, the basic structure of which consists of polygalacturonic acids. They occur in the cells of plants, particularly fruit and vegetables, and are commercially extracted from the residues of apples, pears, quinces, citrus fruit, sugar beet, etc. Pectins are mainly used as “setting” agents in the preparation of jam and other preserves. They may be liquids or powders, and are classified in this heading whether or not standardised by the addition of sugars (glucose, sucrose, etc.) or other products (in order to ensure a constant activity in use). They sometimes contain sodium citrate or other buffer salts.

Pectinates are salts of pectinic acids (partially methoxylated polygalacturonic acids) and **pectates** are salts of pectic acids (demethoxylated pectinic acids). They have much the same properties and uses as pectins.

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(C) Agar-agar and other mucilages and thickeners, whether or not modified, derived from vegetable products.

Mucilages and thickeners, derived from vegetable products, swell in cold water and dissolve in hot, forming a homogeneous, gelatinous and generally tasteless mass on cooling. They are chiefly used as alternatives to gelatin in the preparation of food, in the manufacture of textile or paper dressings, to clarify certain liquids, for bacterial culture, in pharmacy and in the manufacture of cosmetics. They may be modified by chemical treatment (for example, esterified, etherified, treated with borax, acids or alkalis).

These products remain classified in this heading whether or not standardized by the addition of sugars (glucose, sucrose, etc.) or other products (in order to ensure a constant activity in use).

The most important are :

- (1) **Agar-agar (or agar)** obtained by extraction from certain marine algae found mainly in the Indian and Pacific Oceans, and usually presented in the form of dried fibres, flakes, powder or in a gelatinous form obtained by treatment with acids. It is commercially known as “gelose” and also as Japanese vegetable gelatin (or moss) or *Alga spinosa*.
- (2) **Endosperm flour of locust beans** (*Ceratonia siliqua*) or guar seeds (*Cyamopsis psoralioides* or *Cyamopsis tetragonoloba*). These flours are included in this heading, whether or not modified by chemical treatment in order to improve or stabilise their mucilaginous properties (viscosity, solubility, etc.).
- (3) **Carrageenan** extracted from carrageen (known also as Irish moss or pearl moss) and usually in the form of fibrous threads, flakes or powder. The heading also includes mucilaginous substances obtained from carrageenan by chemical transformation (e.g., “sodium carrageenate”).
- (4) **Thickeners** obtained from gums or gum-resins rendered water-soluble by treatment with water under pressure or by any other process.
- (5) **Cotyledon flour of tamarind seeds** (*Tamarindus indica*). These flours are included in this heading even if modified by heat or chemical treatment.

The heading **excludes** :

- (a) Raw or dried seaweed and other algae (generally **heading 12.12**).
- (b) Alginic acid and alginates (**heading 39.13**).