

## Chapter 15

### **Animal, vegetable or microbial fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes**

Notes.

1.- This Chapter does not cover :

(a) Pig fat or poultry fat of heading 02.09;

(b) Cocoa butter, fat or oil (heading 18.04);

(c) Edible preparations containing by weight more than 15 % of the products of heading 04.05 (generally Chapter 21);

(d) Greaves (heading 23.01) or residues of headings 23.04 to 23.06;

(e) Fatty acids, prepared waxes, medicaments, paints, varnishes, soap, perfumery, cosmetic or toilet preparations, sulphonated oils or other goods of Section VI; or

(f) Factice derived from oils (heading 40.02).

2.- Heading 15.09 does not apply to oils obtained from olives by solvent extraction (heading 15.10).

3.- Heading 15.18 does not cover fats or oils or their fractions, merely denatured, which are to be classified in the heading appropriate to the corresponding undenatured fats and oils and their fractions.

4.- Soap-stocks, oil foots and dregs, stearin pitch, glycerol pitch and wool grease residues fall in heading 15.22.

Subheading Note.

1.- For the purposes of subheading 1509.30, virgin olive oil has a free acidity expressed as oleic acid not exceeding 2.0 g/ 100 g and can be distinguished from the other virgin olive oil categories according to the characteristics indicated in the Codex Alimentarius Standard 33-1981.

2.- For the purposes of subheadings 1514.11 and 1514.19, the expression “low erucic acid rape or colza oil” means the fixed oil which has an erucic acid content of less than 2 % by weight.

#### GENERAL

(A) This Chapter covers :

(1) Animal, vegetable or microbial fats and oils, whether crude, purified or refined or treated in certain ways (e.g., boiled, sulphurised or hydrogenated).

(2) Certain products derived from fats or oils, particularly their cleavage products (e.g., crude glycerol).

(3) Compounded edible fats and oils (e.g., margarine).

(4) Animal or vegetable waxes.

(5) Residues resulting from the treatment of fatty substances or of animal or vegetable waxes.

The following are, however, excluded :

(a) Pig fat, free of lean meat, and poultry fat, not rendered or otherwise extracted, of heading 02.09.

(b) Butter and other fats and oils derived from milk (heading 04.05); dairy spreads of heading 04.05.

(c) Cocoa butter, fat and oil (heading 18.04).

(d) Greaves (heading 23.01); oil cake, residual olive pulp and other residues (except dregs) resulting from the extraction of vegetable or microbial fats and oils (headings 23.04 to 23.06).

(e) Fatty acids, acid oils from refining, fatty alcohols, glycerol (other than crude glycerol), prepared waxes, medicaments, paints, varnishes, soap, perfumery, cosmetic or toilet preparations, sulphonated oils or other goods of Section VI.

(f) Factice derived from oils (heading 40.02).

With the exception of sperm oil and jojoba oil, animal, vegetable or microbial fats and oils are esters of glycerol with fatty acids (such as palmitic, stearic and oleic acids).

They may be either solid or fluid, but are all lighter than water. On fairly long exposure to air they become rancid due to hydrolysis and oxidation. When heated they decompose, giving off an acrid, irritant odour. They are all insoluble in water, but completely soluble in diethyl ether, carbon disulphide, carbon tetrachloride, benzene, etc. Castor oil is soluble in alcohol but the other animal, vegetable or microbial fats and oils are only slightly soluble in alcohol. They all leave a persistent greasy stain on paper.

The esters forming triglyceride fats can be broken up (saponification) by the action of superheated steam, dilute acids, enzymes or catalysts, giving glycerol and fatty acids, or by the action of alkalis, which give glycerol and the alkali salts of fatty acids (soaps).

Headings 15.04 and 15.06 to 15.15 also cover fractions of the fats and oils mentioned in those headings, provided they are not more specifically described elsewhere in the Nomenclature (e.g., spermaceti, heading 15.21). The main methods used for fractionation are as follows :

(a) dry fractionation which includes pressing, decantation, winterisation and filtration;

(b) solvent fractionation; and

(c) fractionation with the assistance of a surface-active agent.

Fractionation does not cause any changes in the chemical structure of the fats or oils.

The expression “fats or oils or their fractions, merely denatured” mentioned in Note 3 to this Chapter refers to fats or oils or their fractions to which a denaturant, such as fish oil, phenols, petroleum oils, oil of turpentine, toluene, methyl salicylate (wintergreen oil), oil of rosemary, has been added to render them inedible. These substances are added in small quantities (generally not more than 1 %) which render the fats or oils or their fractions, e.g., rancid, sour, pungent, bitter. It should be noted, however, that Note 3 to this Chapter does not apply to denatured mixtures or preparations of fats or oils or their fractions (heading 15.18).

Subject to the exclusions in Note 1 to this Chapter, animal, vegetable or microbial fats and oils and their fractions are classified in this Chapter whether used as foodstuffs or for technical or industrial purposes (e.g., the manufacture of soap, candles, lubricants, varnishes or paints).

Vegetable or animal waxes consist essentially of the esters of certain higher fatty acids (palmitic, cerotic, myristic) with certain alcohols other than glycerol (cetyl, etc.). They contain a certain proportion of their acids and alcohols in the free state, and also some hydrocarbons.

These waxes do not yield glycerol on hydrolysis and on heating they do not give off the acrid odour of fats and do not become rancid. Waxes are generally harder than fats.

(B) Headings 15.07 to 15.15 of this Chapter cover the single (i.e., not mixed with fats or oils of another nature), fixed vegetable or microbial fats and oils mentioned in the headings, together with their fractions, whether or not refined, but not chemically modified.

Vegetable fats and oils occur widely in nature and are found in the cells of certain parts of plants (e.g., seeds and fruit), from which they are extracted by pressure or by means of solvents.

The vegetable or microbial fats and oils classified in these headings are fixed fats and oils - i.e., fats and oils which cannot easily be distilled without decomposition, which are not volatile and which cannot be carried off by superheated steam (which decomposes and saponifies them).

With the exception of, e.g., jojoba oil, vegetable fats and oils are mixtures of glycerides, but whereas palmitic and stearic glycerides, which are solid at room temperature, predominate in solid oils, fluid oils are mainly composed of glycerides which are liquid at room temperature (glycerides of oleic acid, linoleic acid, linolenic acid, etc.). Microbial fats and oils are also mixtures of glycerides mainly of polyunsaturated fatty acids such as arachidonic acid and linoleic acid, which are liquid at room temperature.

These headings cover crude fats and oils and their fractions, as well as those which have been refined or purified, e.g., by clarifying, washing, filtering, decolourising, deacidifying or deodorising.

The by-products of the refining of oils, e.g., "oil foots and dregs", and soap-stocks fall in heading 15.22. Acid oils from refining fall in heading 38.23 and are prepared by decomposing with mineral acid the soap-stock obtained during the refining of crude oils.

The vegetable fats and oils covered by these headings are mainly obtained from the oil seeds and oleaginous fruits of headings 12.01 to 12.07, but may also be obtained from vegetable materials classified elsewhere (e.g. : olive oil, oils obtained from the kernels of peaches, apricots or plums of heading 12.12, oils obtained from almonds, walnuts, pine nuts, pistachio nuts, etc., of heading 08.02, oil obtained from germ of cereals). Microbial fats and oils covered by heading 15.15 are obtained by extracting lipid from oleaginous microorganisms. Microbial fats and oils are also known as single cell oils (SCO).

These headings do not cover edible or inedible mixtures or preparations, or vegetable fats and oils that have been chemically modified (heading 15.16, 15.17 or 15.18, unless they have the character of products classified elsewhere, e.g., in headings 30.03, 30.04, 33.03 to 33.07, 34.03).