38.23 - Industrial monocarboxylic fatty acids; acid oils from refining; industrial fatty alcohols.

- Industrial monocarboxylic fatty acids; acid oils from refining :

3823.11 - - Stearic acid

3823.12 - - Oleic acid

3823.13 - - Tall oil fatty acids

3823.19 - - Other

3823.70 - Industrial fatty alcohols

(A) INDUSTRIAL MONOCARBOXYLIC FATTY ACIDS; ACID OILS FROM REFINING

Industrial monocarboxylic fatty acids are generally manufactured by the saponification or hydrolysis of natural fats or oils. Separation of solid (saturated) and liquid (unsaturated) fatty acids is usually done by crystallisation either with or without solvent. The liquid part (commercially known as oleic acid or olein) consists of oleic acid and other unsaturated fatty acids (e.g., linoleic and linolenic acids) together with small amounts of saturated fatty acids. The solid part (commercially known as stearic acid or stearin) consists mainly of palmitic and stearic acids with a small proportion of unsaturated fatty acids.

This heading includes, *inter alia* :

(1) **Commercial stearic acid** (stearin) which is a white solid material with a characteristic odour. It is relatively hard and rather brittle and is usually marketed in the form of beads, flakes or powder. It is also marketed in liquid form when transported hot in isothermal tanks.

(2) **Commercial oleic acid** (olein) which is a colourless to brown oily liquid with a characteristic odour.

(3) **Tall oil fatty acids** (TOFA) which consist primarily of oleic and linoleic acid. They are obtained by the distillation of crude tall oil and contain by weight 90 % or more (calculated on the weight of the dry product) of fatty acids.

(4) **Distilled fatty acids** which are obtained after hydrolytic splitting of various fats and oils (e.g., coconut oil, palm oil, tallow) followed by a purification process (distillation).

(5) **Fatty acid distillate**, obtained from fats and oils which have been subjected to vacuum distillation in the presence of steam as part of a refining process. Fatty acid distillate is characterised by a high free fatty acid (ffa) content.

(6) **Fatty acids obtained by catalytic oxidation** of synthetic hydrocarbons of a high molecular weight.

(7) **Acid oils from refining**, with a relatively high free fatty acid content, prepared by decomposing with mineral acid the soap-stock obtained during the refining of crude oils.

The heading **excludes** :

(a) Oleic acid, of a purity of 85 % or more (calculated on the weight of the dry product) (**heading 29.16**).

(b) Other fatty acids of a purity of 90 % or more (calculated on the weight of the dry product) (generally **heading 29.15, 29.16** or **29.18**).

(B) INDUSTRIAL FATTY ALCOHOLS

The fatty alcohols classified here are mixtures of acyclic alcohols obtained by catalytic reduction of the mixed fatty acids of this heading (see Part (A) above) or of their esters, by saponification of sperm oil, by catalytic reaction between olefins, carbon monoxide and hydrogen (" Oxo " process), by hydration of olefins, by oxidation of hydrocarbons or by other means.

Fatty alcohols are usually liquid but some are solid.

The principal fatty alcohols of this heading are :

(1) **Lauryl alcohol** which is a mixture of saturated fatty alcohols obtained by catalytic reduction of the fatty acids from coconut oil. It is liquid at normal temperatures, but is semi-solid in cold weather.

(2) **Cetyl alcohol** which is a mixture of cetyl and stearyl alcohols, the former greatly predominating, obtained from spermaceti and sperm oil. It is a crystalline, translucent solid at room temperature.

(3) **Stearyl alcohol** which is a mixture of stearyl and cetyl alcohols obtained by reduction of stearin or oils rich in stearic acid, or from sperm oil by hydrogenation and hydrolysis followed by distillation. It is a white crystalline solid at room temperature.

(4) **Oleyl alcohol** which is obtained by reduction of olein, or from alcohols derived from sperm oil by hydraulic pressure. It is liquid at room temperature.

(5) **Mixtures of primary aliphatic alcohols** commonly comprising alcohols in the range from six to thirteen carbon atoms. They are liquids generally produced by the " Oxo " process.

The fatty alcohols referred to in paragraphs (1) to (4) are mainly used for the preparation of their sulphonated derivatives whose alkali salts are the organic surface-active agents of heading 34.02. The fatty alcohols of paragraph (5) are principally used for the manufacture of plasticisers for poly(vinyl chloride).

This heading also covers industrial fatty alcohols which have a waxy character.

The heading **does not include** chemically defined fatty alcohols, of a purity of 90 % or more (calculated on the weight of the dry product) (generally **heading 29.05**).