SECTION C — CHEMISTRY; METALLURGY

C13 SUGAR INDUSTRY

Note(s) [2011.01]

In class C13, the following terms or expressions are used with the meanings indicated:

- "sugars" are a class of edible, water-soluble crystalline carbohydrates, having a characteristic sweet taste, including mono-, di- and oligosaccharides, e.g. sucrose, lactose and fructose. A more specific meaning of the term "sugar" is defined in the note of subclass C13B.

C13B **PRODUCTION OF SUCROSE; APPARATUS SPECIALLY ADAPTED THEREFOR** (chemically synthesised sugars or sugar derivatives C07H; fermentation or enzyme-using processes for preparing compounds containing saccharide radicals C12P 19/00) **[2011.01]**

Note(s) [2011.01]

In subclass C13B, the following terms or expressions are used with the meanings indicated:

- “sugar” is used in its non-scientific meaning and refers to sucrose, also called “table sugar” or “saccharose”, a white crystalline disaccharide;
- "sugar juices" are solutions of sugar, essentially comprising sucrose, which are derived from different plants, e.g. beet, cane or maple;
- "syrups" are highly concentrated sugar juices.

5/00 **Reducing the size of material from which sugar is to be extracted** (for extraction of starch C08B 30/02) **[2011.01]**
5/02 • Cutting sugar cane **[2011.01]**
5/04 • • Shredding sugar cane **[2011.01]**
5/06 • Slicing sugar beet **[2011.01]**
5/08 • Knives; Adjustment or maintenance thereof **[2011.01]**

10/00 **Production of sugar juices** (tapping of tree-juices A01G 23/10; tapping-spouts, receptacles for juices A01G 23/14) **[2011.01]**
10/02 • Expressing juice from sugar cane or similar material, e.g. sorghum saccharatum **[2011.01]**
10/04 • • combined with imbibition **[2011.01]**
10/06 • • Sugar-cane crushers **[2011.01]**
10/08 • Extraction of sugar from sugar beet with water **[2011.01]**
10/10 • • Continuous processes **[2011.01]**
10/12 • • Details of extraction apparatus, e.g. arrangements of pipes or valves **[2011.01]**
10/14 • using extracting agents other than water, e.g. alcohol or salt solutions **[2011.01]**

15/00 **Expressing water from material from which sugar has been extracted** (from starch-extracted material C08B 30/10) **[2011.01]**
15/02 • between perforated moving belts **[2011.01]**

20/00 **Purification of sugar juices [2011.01]**

Note(s) [2011.01]

When classifying in this group, classification is also made in group B01D 15/08 insofar as subject matter of general interest relating to chromatography is concerned.

20/02 • using alkaline earth metal compounds **[2011.01]**
20/04 • • followed by saturation **[2011.01]**
20/06 • • • with carbon dioxide or sulfur dioxide **[2011.01]**
20/08 • by oxidation or reduction **[2011.01]**
20/10 • • using sulfur dioxide or sulfites **[2011.01]**
20/12 • using adsorption agents, e.g. active carbon **[2011.01]**
20/14 • using ion-exchange materials **[2011.01]**
20/16 • by physical means, e.g. osmosis or filtration **[2011.01]**
20/18 • by electrical means **[2011.01]**

25/00 **Evaporators or boiling pans specially adapted for sugar juices; Evaporating or boiling sugar juices [2011.01]**
25/02 • Details, e.g. for preventing foaming or for catching juice **[2011.01]**
25/04 • • Heating equipment **[2011.01]**
25/06 • combined with measuring instruments for effecting control of the process **[2011.01]**

30/00 **Crystallisation; Crystallising apparatus; Separating crystals from mother liquors [2011.01]**
30/02 • Crystallisation; Crystallising apparatus **[2011.01]**
30/04 • Separating crystals from mother liquor **[2011.01]**
30/06 • • by centrifugal force **[2011.01]**
30/08 • • Washing residual mother liquor from crystals **[2011.01]**
30/10 • • • in centrifuges **[2011.01]**
30/12 • • Recycling mother liquor or wash liquors **[2011.01]**
30/14 • • Dissolving or refining raw sugar **[2011.01]**

35/00 **Extraction of sucrose from molasses [2011.01]**
35/02 • by chemical means **[2011.01]**
35/04 • • by precipitation as alkaline earth metal saccharates **[2011.01]**
35/06 • • using ion exchange **[2011.01]**

35/08 • by physical means, e.g. osmosis **[2011.01]**

40/00 Drying sugar [2011.01]

45/00 Cutting machines specially adapted for sugar [2011.01]

45/02 • in combination with sorting and packing machines **[2011.01]**

50/00 Sugar products, e.g. powdered, lump or liquid sugar; Working-up of sugar (C13B 40/00, C13B 45/00 take precedence; confectionery A23G 3/00) **[2011.01]**

50/02 • formed by moulding sugar **[2011.01]**

99/00 Subject matter not provided for in other groups of this subclass [2011.01]

C13K SACCHARIDES, OTHER THAN SUCROSE, OBTAINED FROM NATURAL SOURCES OR BY HYDROLYSIS OF NATURALLY OCCURRING DI-, OLIGO- OR POLYSACCHARIDES (chemically synthesised sugars or sugar derivatives C07H; polysaccharides, e.g. starch, derivatives thereof C08B; malt C12C; fermentation or enzyme-using processes for preparing compounds containing saccharide radicals C12P 19/00)

1/00 Glucose (separation from invert sugar C13K 3/00)**; Glucose-containing syrups [1, 2, 2006.01]**

1/02 • obtained by saccharification of cellulosic materials (manufacture of fodder A23K 10/32) **[1, 2006.01]**

1/04 • • Purifying **[1, 2006.01]**

1/06 • obtained by saccharification of starch or raw materials containing starch **[1, 2006.01]**

1/08 • • Purifying **[1, 2006.01]**

1/10 • Crystallisation **[1, 2006.01]**

3/00 Invert sugar; Separation of glucose or fructose from invert sugar [1, 2006.01]

5/00 Lactose [1, 2006.01]

7/00 Maltose [1, 2006.01]

11/00 Fructose (separation from invert sugar C13K 3/00) **[2, 2006.01]**

13/00 Sugars not otherwise provided for in this class [2, 2006.01]