

## 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	<b>Reducing the size of material from which sugar is to be extracted</b> (for extraction of starch C08B 30/02) [2011.01]	20/04	• • followed by saturation [2011.01]
		20/06	• • • with carbon dioxide or sulfur dioxide [2011.01]
5/02	• Cutting sugar cane [2011.01]	20/08	• by oxidation or reduction [2011.01]
5/04	• • Shredding sugar cane [2011.01]	20/10	• • using sulfur dioxide or sulfites [2011.01]
5/06	• Slicing sugar beet [2011.01]	20/12	• using adsorption agents, e.g. active carbon [2011.01]
5/08	• Knives; Adjustment or maintenance thereof [2011.01]	20/14	• using ion-exchange materials [2011.01]
		20/16	• by physical means, e.g. osmosis or filtration [2011.01]
10/00	<b>Production of sugar juices</b> (tapping of tree-juices A01G 23/10; tapping-spouts, receptacles for juices A01G 23/14) [2011.01]	20/18	• by electrical means [2011.01]
10/02	• Expressing juice from sugar cane or similar material, e.g. sorghum saccharatum [2011.01]	25/00	<b>Evaporators or boiling pans specially adapted for sugar juices; Evaporating or boiling sugar juices</b> [2011.01]
10/04	• • combined with imbibition [2011.01]	25/02	• Details, e.g. for preventing foaming or for catching juice [2011.01]
10/06	• • Sugar-cane crushers [2011.01]	25/04	• • Heating equipment [2011.01]
10/08	• Extraction of sugar from sugar beet with water [2011.01]	25/06	• combined with measuring instruments for effecting control of the process [2011.01]
10/10	• • Continuous processes [2011.01]		
10/12	• • Details of extraction apparatus, e.g. arrangements of pipes or valves [2011.01]	30/00	<b>Crystallisation; Crystallising apparatus; Separating crystals from mother liquors</b> [2011.01]
10/14	• using extracting agents other than water, e.g. alcohol or salt solutions [2011.01]	30/02	• Crystallisation; Crystallising apparatus [2011.01]
		30/04	• Separating crystals from mother liquor [2011.01]
15/00	<b>Expressing water from material from which sugar has been extracted</b> (from starch-extracted material C08B 30/10) [2011.01]	30/06	• • by centrifugal force [2011.01]
15/02	• between perforated moving belts [2011.01]	30/08	• • Washing residual mother liquor from crystals [2011.01]
		30/10	• • • in centrifuges [2011.01]
20/00	<b>Purification of sugar juices</b> [2011.01]	30/12	• • Recycling mother liquor or wash liquors [2011.01]
	<b>Note(s) [2011.01]</b>	30/14	• • Dissolving or refining raw sugar [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.	35/00	<b>Extraction of sucrose from molasses</b> [2011.01]
20/02	• using alkaline earth metal compounds [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]

**C13B**

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 OBTAINED FROM NATURAL SOURCES OR BY HYDROLYSIS OF NATURALLY OCCURRING DISACCHARIDES, OLIGOSACCHARIDES OR POLYSACCHARIDES** (production of sucrose C13B; 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]**