

# CPC COOPERATIVE PATENT CLASSIFICATION

## C CHEMISTRY; METALLURGY

(NOTES omitted)

### CHEMISTRY

**C11 ANIMAL AND VEGETABLE OILS, FATS, FATTY SUBSTANCES AND WAXES; FATTY ACIDS THEREFROM; DETERGENTS; CANDLES** ([edible oil or fat compositions A23](#))

**C11B PRODUCING (PRESSING, EXTRACTION), REFINING AND PRESERVING FATS, FATTY SUBSTANCES (e.g. LANOLIN), FATTY OILS AND WAXES, INCLUDING EXTRACTION FROM WASTE MATERIALS; ESSENTIAL OILS; PERFUMES** ([drying-oils C09F](#))

#### NOTE

In this subclass, boron and silicon are considered as metals

#### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

#### 1/00 Production of fats or fatty oils from raw materials

- 1/02 . Pretreatment
- 1/025 . . {by enzymes or microorganisms, living or dead}
- 1/04 . . of vegetable raw material {(C11B 1/025 takes precedence)}
- 1/06 . by pressing
- 1/08 . . by hot pressing
- 1/10 . by extracting
- 1/102 . . {in counter-current; utilisation of an equipment wherein the material is conveyed by a screw}
- 1/104 . . {using super critical gases or vapours}
- 1/106 . . {using ultra-sounds}
- 1/108 . . {after-treatment, e.g. of miscellae}
- 1/12 . by melting out
- 1/14 . . with hot water or aqueous solutions
- 1/16 . . with steam

#### 3/00 Refining fats or fatty oils

- 3/001 . {by a combination of two or more of the means hereafter}
- 3/003 . {by enzymes or microorganisms, living or dead}
- 3/005 . {by wave energy or electric current, e.g. electro dialysis}
- 3/006 . {by extraction}
- 3/008 . {by filtration, e.g. including ultra filtration, dialysis (C11B 3/005 takes precedence)}
- 3/02 . by chemical reaction {(C11B 3/003 takes precedence)}
- 3/04 . . with acids
- 3/06 . . with bases
- 3/08 . . with oxidising agents
- 3/10 . by adsorption

#### NOTE

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.

- 3/12 . by distillation
- 3/14 . . with the use of indifferent gases or vapours, e.g. steam
- 3/16 . by mechanical means

#### 5/00 Preserving by using additives, e.g. anti-oxidants

#### NOTE

In groups [C11B 5/0007](#) - [C11B 5/0092](#), in the absence of an indication to the contrary, a composition is classified in the last appropriate place

- 5/0007 . {Organic substances}
- 5/0014 . {Hydrocarbons}
- 5/0021 . {containing oxygen}
- 5/0028 . . {Carboxylic acids; Their derivatives}
- 5/0035 . . {Phenols; Their halogenated and aminated derivatives, their salts, their esters with carboxylic acids}
- 5/0042 . {containing nitrogen}
- 5/005 . . {Amines or imines (C11B 5/0035 takes precedence)}
- 5/0057 . . {Amides or imides}
- 5/0064 . . {Heterocyclic compounds containing nitrogen in the ring}
- 5/0071 . {containing halogens, sulfur or phosphorus (halogenated phenols C11B 5/0035)}
- 5/0078 . {Metal hydrides or organo-metallic compounds, i.e. organic compounds containing a metal-to-carbon link}
- 5/0085 . {Substances of natural origin of unknown constitution, f.i. plant extracts}
- 5/0092 . {Mixtures}

**7/00 Separation of mixtures of fats or fatty oils into their constituents, e.g. saturated oils from unsaturated oils**

**NOTE**

In groups [C11B 7/0008](#) - [C11B 7/0091](#), in the absence of an indication to the contrary an invention is classified in the last appropriate place

- 7/0008 . {by differences of solubilities, e.g. by extraction, by separation from a solution by means of anti-solvents (addition of a minor amount of solvent intended to lower the melting point [C11B 7/0083](#), [C11B 7/0091](#))}
- 7/0016 . . {in hydrocarbons or halogenated hydrocarbons (in pressure liquefied gases [C11B 7/005](#))}
- 7/0025 . . {in solvents containing oxygen in their molecule}
- 7/0033 . . {in solvents containing other heteroatoms in their molecule}
- 7/0041 . . {in mixtures of individualized solvents (water is not taken into account)}
- 7/005 . . {in solvents used at superatmospheric pressures}
- 7/0058 . . {in solvents or mixtures of solvents of different natures or compositions used in succession}
- 7/0066 . . {between two or more non-miscible solvent phases}
- 7/0075 . {by differences of melting or solidifying points}
- 7/0083 . {with addition of auxiliary substances, e.g. crystallisation promoters, filter aids, melting point depressors, (if a characterised solution is formed [C11B 7/0008](#))}
- 7/0091 . {non-solvents, e.g. water wherein the fat or oil is dispersed account a more washing out of fractions is not taken into}

**9/00 Essential oils; Perfumes (synthesis of chemical substances [C07](#))**

- 9/0003 . {Compounds of unspecified constitution defined by the chemical reaction for their preparation}
- 9/0007 . {Aliphatic compounds}
- 9/0011 . . {containing S}
- 9/0015 . . {containing oxygen as the only heteroatom}
- 9/0019 . . . {carbocyclic acids; Salts or esters thereof}
- 9/0023 . . {containing nitrogen as the only heteroatom}
- 9/0026 . {compounds containing an alicyclic ring not condensed with another ring}
- 9/003 . . {the ring containing less than six carbon atoms}
- 9/0034 . . {the ring containing six carbon atoms}
- 9/0038 . . {the ring containing more than six carbon atoms}
- 9/0042 . {compounds containing condensed hydrocarbon rings}
- 9/0046 . . {containing only two condensed rings}
- 9/0049 . . . {the condensed rings sharing two common C atoms}
- 9/0053 . . . . {both rings being six-membered}
- 9/0057 . . . {Spiro compounds}
- 9/0061 . {compounds containing a six-membered aromatic ring not condensed with another ring}
- 9/0065 . . {Nitriles}
- 9/0069 . {Heterocyclic compounds}
- 9/0073 . . {containing only O or S as heteroatoms}
- 9/0076 . . . {the hetero rings containing less than six atoms}
- 9/008 . . . {the hetero rings containing six atoms}

- 9/0084 . . . {the hetero rings containing more than six atoms}
- 9/0088 . . . {Spiro compounds}
- 9/0092 . . {containing only N as heteroatom}
- 9/0096 . . {containing at least two different heteroatoms, at least one being nitrogen}
- 9/02 . Recovery or refining of essential oils from raw materials
- 9/022 . . {Refining}
- 9/025 . . {Recovery by solvent extraction}
- 9/027 . . {Recovery of volatiles by distillation or stripping}

**11/00 Recovery or refining of other fatty substances, e.g. lanolin, waxes (synthetic waxes [C07](#), [C08](#); mineral waxes [C10G](#))**

- 11/005 . {Lanolin; Woolfat}

**13/00 Recovery of fats, fatty oils, or fatty acids from waste materials (mechanical separation from waste water [C02F](#), [E03F](#))**

- 13/005 . {of residues of the fabrication of wood-cellulose (in particular tall-oil)}
- 13/02 . from soap stock
- 13/04 . from spent adsorption materials

**15/00 Solidifying fatty oils, fats, or waxes by physical processes**