

## SECTION C — CHEMISTRY; METALLURGY

## C05 FERTILISERS; MANUFACTURE THEREOF

**Note(s) [2006.01]**

1. An ingredient in a mixture of fertilisers, or a single fertiliser which contains more than one of the chemical elements on which the subdivision into subclasses is based, is classified only in the first of the appropriate subclasses. Thus, a nitrophosphate or an ammoniated superphosphate is classified in C05B but not in C05C, magnesium phosphate is classified in C05B but not in C05D, and calcium cyanamide in C05C but not in C05D.
2. Any ingredient in a mixture, which is considered to represent information of interest for search, may also additionally be classified according to Note (1). This can, for example, be the case when it is considered of interest to enable searching of mixtures using a combination of classification symbols. Such non-obligatory classification should be given as "additional information".

## C05B PHOSPHATIC FERTILISERS

**Subclass index**

SUPERPHOSPHATES.....	1/00
PRODUCED BY WET TREATMENTS.....	11/00
PRODUCED BY PYROGENIC PROCESSES.....	13/00
OTHER INORGANIC FERTILISERS.....	3/00-9/00, 17/00
ORGANIC FERTILISERS.....	15/00, 17/00
GRANULATION; PELLETISATION.....	19/00
MIXTURES OF PHOSPHATIC FERTILISERS.....	21/00

<b>1/00 Superphosphates, i.e. fertilisers produced by reacting rock or bone phosphates with sulfuric or phosphoric acid in such amounts and concentrations as to yield solid products directly [1, 2006.01]</b>	11/04 • using mineral acid [1, 2006.01]
1/02 • Superphosphates [1, 2006.01]	11/06 • • using nitric acid (nitrophosphates) [1, 2006.01]
1/04 • Double-superphosphate; Triple-superphosphate; Other fertilisers based essentially on monocalcium phosphate [1, 2006.01]	11/08 • • using sulfuric acid [1, 2006.01]
1/06 • Ammoniation of superphosphates (fertilisers based essentially on ammonium orthophosphate C05B 7/00) [1, 2006.01]	11/10 • • using orthophosphoric acid [1, 2006.01]
1/10 • Apparatus for the manufacture of superphosphates [1, 2006.01]	11/12 • • using aqueous hydrochloric acid [1, 2006.01]
<b>3/00 Fertilisers based essentially on di-calcium phosphate (C05B 11/00 takes precedence) [1, 2006.01]</b>	11/14 • • using wet gaseous acids [1, 2006.01]
<b>5/00 Thomas phosphate; Other slag phosphates [1, 2006.01]</b>	11/16 • using alkaline lyes [1, 2006.01]
<b>7/00 Fertilisers based essentially on alkali or ammonium orthophosphates (C05B 11/00 takes precedence) [1, 2006.01]</b>	<b>13/00 Fertilisers produced by pyrogenic processes from phosphatic materials [1, 2006.01]</b>
<b>9/00 Fertilisers based essentially on phosphates or double phosphates of magnesium (C05B 11/00 takes precedence) [1, 2006.01]</b>	13/02 • from rock phosphates (C05B 13/06 takes precedence) [1, 2006.01]
<b>11/00 Fertilisers produced by wet-treating or leaching raw materials either with acids in such amounts and concentrations as to yield solutions followed by neutralisation, or with alkaline lyes [1, 2006.01]</b>	13/04 • from metallic phosphorus compounds, e.g. ferrophosphorus [1, 2006.01]
11/02 • Pretreatment [1, 2006.01]	13/06 • Alkali or alkaline earth meta- or polyphosphate fertilisers [1, 2006.01]
	<b>15/00 Organic phosphatic fertilisers (bone meal C05B 17/00) [1, 2006.01]</b>
	<b>17/00 Other phosphatic fertilisers, e.g. soft rock phosphates, bone meal [1, 2006.01]</b>
	17/02 • containing manganese [1, 2006.01]
	<b>19/00 Granulation or pelletisation of phosphatic fertilisers other than slag [1, 2006.01]</b>
	19/02 • of superphosphates or mixtures containing them [1, 2006.01]
	<b>21/00 Mixtures of phosphatic fertilisers covered by more than one of main groups C05B 1/00-C05B 19/00 [1, 2006.01]</b>

## C05B

## C05C NITROGENOUS FERTILISERS

**Subclass index**

BASED ON NITRATES.....	1/00, 5/00
BASED ON AMMONIUM SALTS, AMMONIA.....	1/00, 3/00
BASED ON CYANAMIDE.....	7/00
BASED ON UREA.....	9/00
OTHER FERTILISERS.....	11/00
MIXTURES OF NITROGENOUS FERTILISERS.....	13/00

<b>1/00 Ammonium nitrate fertilisers [1, 2006.01]</b>	7/02	• Granulation; Pelletisation; De-gassing; Hydrating; Hardening; Stabilisation; Oiling [1, 2006.01]
1/02 • Granulation; Pelletisation; Stabilisation; Colouring [1, 2006.01]		
<b>3/00 Fertilisers containing other salts of ammonia or ammonia itself, e.g. gas liquor [1, 2006.01]</b>	<b>9/00 Fertilisers containing urea or urea compounds [1, 2006.01]</b>	
5/00 Fertilisers containing other nitrates [1, 2006.01]	9/02	• containing urea-formaldehyde condensates [1, 2006.01]
5/02 • containing sodium or potassium nitrate [1, 2006.01]	<b>11/00 Other nitrogenous fertilisers [1, 2006.01]</b>	
5/04 • containing calcium nitrate [1, 2006.01]	<b>13/00 Mixtures of nitrogenous fertilisers covered by more than one of main groups C05C 1/00-C05C 11/00 [1, 2006.01]</b>	
<b>7/00 Fertilisers containing calcium or other cyanamides [1, 2006.01]</b>		

## C05D INORGANIC FERTILISERS NOT COVERED BY SUBCLASSES C05B, C05C; FERTILISERS PRODUCING CARBON DIOXIDE

<b>1/00 Fertilisers containing potassium (C05D 7/00 takes precedence) [1, 2006.01]</b>	3/04	• from blast-furnace slag or other slags containing lime or calcium silicates [1, 2006.01]
1/02 • Manufacture from potassium chloride or sulfate or double or mixed salts thereof [1, 2006.01]	<b>5/00 Fertilisers containing magnesium (C05D 7/00 takes precedence) [1, 2006.01]</b>	
1/04 • from minerals or volcanic rocks [1, 2006.01]	<b>7/00 Fertilisers producing carbon dioxide [1, 2006.01]</b>	
<b>3/00 Calcareous fertilisers (C05D 7/00 takes precedence) [1, 2006.01]</b>	<b>9/00 Other inorganic fertilisers [1, 2006.01]</b>	
3/02 • from limestone, calcium carbonate, calcium hydrate, slaked lime, calcium oxide, waste calcium compounds [1, 2006.01]	9/02	• containing trace elements [1, 2006.01]
	<b>11/00 Mixtures of fertilisers covered by more than one of main groups C05D 1/00-C05D 9/00 [1, 2006.01]</b>	

## C05F ORGANIC FERTILISERS NOT COVERED BY SUBCLASSES C05B, C05C, e.g. FERTILISERS FROM WASTE OR REFUSE

**Note(s) [5]**

Processes where the composting step is the characterising feature, or apparatus therefor, are classified in group C05F 17/00.

<b>1/00 Fertilisers made from animal corpses, or parts thereof [1, 2006.01]</b>	<b>7/00 Fertilisers from waste water, sewage sludge, sea slime, ooze or similar masses [1, 2006.01]</b>
1/02 • Apparatus for their manufacture [1, 2006.01]	7/02 • from sulfite liquor or other waste lyes from the manufacture of cellulose [1, 2006.01]
<b>3/00 Fertilisers from human or animal excrements, e.g. manure [1, 2006.01]</b>	7/04 • from waste liquors in the potash industry [1, 2006.01]
3/02 • Guano [1, 2006.01]	<b>9/00 Fertilisers from household or town refuse [1, 2006.01]</b>
3/04 • from human faecal masses [1, 2006.01]	9/02 • Apparatus for the manufacture [1, 2006.01]
3/06 • Apparatus for their manufacture [1, 2006.01]	9/04 • Biological compost [1, 2006.01]
<b>5/00 Fertilisers from distillery wastes, molasses, vinasses, sugar plant, or similar wastes or residues [1, 2006.01]</b>	<b>11/00 Other organic fertilisers [1, 2006.01]</b>

- 11/02 • from peat, brown coal, or similar vegetable deposits [1, 2006.01]
- 11/04 • • Horticultural earth from peat (growth substrates containing peat A01G 24/28) [1, 2006.01, 2018.01]
- 11/06 • • Apparatus for their manufacture [1, 2006.01]
- 11/08 • Organic fertilisers containing added bacterial cultures, mycelia or the like [1, 2006.01]
- 11/10 • Fertilisers containing plant vitamins or hormones [1, 2006.01]
- 15/00 Mixtures of fertilisers covered by more than one of main groups C05F 1/00-C05F 11/00; Fertilisers from mixtures of starting materials, all the starting materials being covered by this subclass but not by the same main group [5, 2006.01]**
- 17/00 Preparation of fertilisers characterised by biological or biochemical treatment steps, e.g. composting or fermentation [5, 2006.01, 2020.01]**
- 17/05 • Treatments involving invertebrates, e.g. worms, flies or maggots [2020.01]
- 17/10 • Addition or removal of substances other than water or air to or from the material during the treatment (for activating or stimulating the treatment C05F 17/20) [2020.01]
- 17/20 • using specific microorganisms or substances, e.g. enzymes, for activating or stimulating the treatment (use of invertebrates C05F 17/05) [2020.01]
- 17/30 • using irradiation, e.g. solar or nuclear radiation; using electric or magnetic fields [2020.01]
- 17/40 • Treatment of liquids or slurries [2020.01]
- 17/50 • Treatments combining two or more different biological or biochemical treatments, e.g. anaerobic and aerobic treatment or vermicomposting and aerobic treatment [2020.01]
- 17/60 • Heating or cooling during the treatment [2020.01]
- 17/70 • Controlling the treatment in response to process parameters [2020.01]
- 17/80 • Separation, elimination or disposal of harmful substances during the treatment [2020.01]
- 17/90 • Apparatus therefor [2020.01]
- 17/907 • • Small-scale devices without mechanical means for feeding or discharging material, e.g. garden compost bins [2020.01]
- 17/914 • • Portable or transportable devices, e.g. transport containers or trucks [2020.01]
- 17/921 • • Devices in which the material is conveyed essentially horizontally between inlet and discharge means [2020.01]
- 17/929 • • • Cylinders or drums [2020.01]
- 17/936 • • • Tunnels [2020.01]
- 17/943 • • • Means for combined mixing and conveying [2020.01]
- 17/95 • • Devices in which the material is conveyed essentially vertically between inlet and discharge means [2020.01]
- 17/957 • • using two or more serially arranged devices [2020.01]
- 17/964 • • Constructional parts, e.g. floors, covers or doors [2020.01]
- 17/971 • • • for feeding or discharging material to be treated; for feeding or discharging other material [2020.01]
- 17/979 • • • • the other material being gaseous [2020.01]
- 17/986 • • • • the other material being liquid [2020.01]
- 17/993 • • Arrangements for measuring process parameters, e.g. temperature, pressure or humidity [2020.01]

**C05G MIXTURES OF FERTILISERS COVERED INDIVIDUALLY BY DIFFERENT SUBCLASSES OF CLASS C05; MIXTURES OF ONE OR MORE FERTILISERS WITH ADDITIVES NOT HAVING A SPECIFIC FERTILISING ACTIVITY** (organic fertilisers containing added bacterial cultures, mycelia or the like C05F 11/08; organic fertilisers containing plant vitamins or hormones C05F 11/10); **FERTILISERS CHARACTERISED BY THEIR FORM [4]**

**Note(s) [6]**

1. This subclass covers mixtures of fertilisers with soil-conditioning or soil-stabilising materials characterised by their fertilising activity.
2. This subclass does not cover mixtures of fertilisers with soil-conditioning or soil-stabilising materials characterised by their soil-conditioning or soil-stabilising activity, which are covered by group C09K 17/00.

- 1/00 Mixtures of fertilisers covered individually by different subclasses of class C05 [1, 2006.01]**
- 1/02 • of superphosphates with ammonium nitrate [1, 2006.01]
- 1/04 • of Thomas phosphate with potassium compounds [1, 2006.01]
- 1/06 • of alkali or ammonium orthophosphates with ammonium nitrate or ammonium sulfate or other nitrates or potassium compounds [1, 2006.01]
- 1/08 • of ammonium nitrate with limestone or calcium carbonate [1, 2006.01]
- 1/10 • of ammonium sulfate with potassium compounds [1, 2006.01]
- 3/00 Mixtures of one or more fertilisers with additives not having a specifically fertilising activity [1, 2006.01, 2020.01]**
- 3/20 • for preventing the fertilisers being reduced to powder; Anti-dusting additives [2020.01]
- 3/30 • Anti-agglomerating additives; Anti-solidifying additives [2020.01]
- 3/40 • for affecting fertiliser dosage or release rate; for affecting solubility [2020.01]
- 3/50 • Surfactants; Emulsifiers [2020.01]
- 3/60 • Biocides or preservatives, e.g. disinfectants, pesticides or herbicides; Pest repellants or attractants [2020.01]
- 3/70 • for affecting wettability, e.g. drying agents [2020.01]
- 3/80 • Soil conditioners [2020.01]
- 3/90 • for affecting the nitrification of ammonium compounds or urea in the soil [2020.01]
- 5/00 Fertilisers characterised by their form [4, 2006.01, 2020.01]**
- 5/10 • Solid or semi-solid fertilisers, e.g. powders (layered or coated C05G 5/30; incorporated into a matrix C05G 5/40) [2020.01]

## C05G

- 5/12 • • Granules or flakes **[2020.01]**
- 5/14 • • Tablets, spikes, rods, blocks or balls **[2020.01]**
- 5/16 • • Films or sheets; Webs; Fibres **[2020.01]**
- 5/18 • • Semi-solid fertilisers, e.g. foams or gels **[2020.01]**
- 5/20 • Liquid fertilisers (layered or coated C05G 5/30; incorporated into a matrix C05G 5/40) **[2020.01]**
- 5/23 • • Solutions **[2020.01]**
- 5/27 • • Dispersions, e.g. suspensions or emulsions **[2020.01]**
- 5/30 • Layered or coated, e.g. dust-preventing coatings **[2020.01]**
- 5/35 • • Capsules, e.g. core-shell **[2020.01]**
- 5/40 • Fertilisers incorporated into a matrix **[2020.01]**