

Wednesday 10 April 2002

## ANNEX I

## LIST OF TYPES OF EC FERTILIZERS

## A. Inorganic straight primary nutrient fertilizers

## A.1. Nitrogenous fertilizers

| No   | Type designation  | Data on method of production and essential ingredients   | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements   | Other data on the type of designation   | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria         |
|------|---|--|--|---|--|
| 1    | 2   | 3  | 4  | 5   | 6  |
| 1(a) | Calcium nitrate (nitrate of lime)                         | Chemically obtained product containing calcium nitrate as its essential ingredient and possibly ammonium nitrate   | 15 % N<br>Nitrogen expressed as total nitrogen or as nitric and ammoniacal nitrogen. Maximum content of ammoniacal nitrogen: 1,5 % N   |   | Total nitrogen<br><br>Additional optional particulars:<br>Nitric nitrogen<br>Ammoniacal nitrogen |
| 1(b) | Calcium magnesium nitrate (nitrate of lime and magnesium) | Chemically obtained product containing calcium nitrate and magnesium nitrate as essential ingredients  | 13 % N<br>Nitrogen expressed as nitric nitrogen. Minimum content of magnesium in the form of water-soluble salts expressed as magnesium oxide: 5 % MgO   |   | Nitric nitrogen<br>Water-soluble magnesium oxide   |
| 1(c) | Magnesium nitrate   | Chemically obtained product containing as its essential ingredient hexahydrated magnesium nitrate  | 10 % N<br>Nitrogen expressed as nitric nitrogen<br>14 % MgO<br>Magnesium expressed as water-soluble magnesium oxide  | When marketed in the form of crystals as note 'in crystallised form' may be added | Nitric nitrogen<br>Water-soluble magnesium oxide   |
| 2(a) | Sodium nitrate (nitrate of soda)                          | Chemically obtained product containing sodium nitrate as its essential ingredient  | 15 % N<br>Nitrogen expressed as nitric nitrogen  |   | Nitric nitrogen  |
| 2(b) | Chile nitrate   | Product prepared from caliche, containing sodium nitrate as its essential ingredient   | 15 % N<br>Nitrogen expressed as nitric nitrogen  |   | Nitric nitrogen  |
| 3(a) | Calcium cyanamide   | Chemically obtained product containing calcium cyanamide as its essential ingredient, calcium oxide and possibly small quantities of ammonium salts and urea                         | 18 % N<br>Nitrogen expressed as total nitrogen, at least 75 % of the nitrogen declared being bound in the form of cyanamide  |   | Total nitrogen   |
| 3(b) | Nitrogenous calcium cyanamide                             | Chemically obtained product containing calcium cyanamide as its essential ingredient, and calcium oxide and possibly small quantities of ammonium salts and urea, plus added nitrate | 18 % N<br>Nitrogen expressed as total nitrogen, at least 75 % of the non-nitric nitrogen declared being bound in the form of cyanamide. Nitric nitrogen content:<br>- minimum: 1 % N<br>- maximum: 3 % N |   | Total nitrogen<br>Nitric nitrogen  |
| 4    | Sulphate of ammonia                                       | Chemically obtained product containing ammonium sulphate as its essential ingredient   | 20 % N<br>Nitrogen expressed as ammoniacal nitrogen  |   | Ammoniacal nitrogen  |

Wednesday 10 April 2002

| No | Type designation                             | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements   | Other data on the type of designation  | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria  |
|----|--|---|--|--|---|
| 1  | 2  | 3   | 4  | 5  | 6   |
| 5  | Ammonium nitrate or calcium ammonium nitrate | Chemically obtained product containing ammonium nitrate as its essential ingredient, which may contain fillers such as ground limestone, calcium sulphate, ground dolomite, magnesium sulphate, kieserite | 20 % N<br>Nitrogen expressed as nitric nitrogen and ammoniacal nitrogen, each of these two forms of nitrogen accounting for about half the nitrogen present.<br>See Annexes III.1 and III.2 of this regulation, if required. | The designation 'calcium ammonium nitrate' is exclusively reserved for a fertilizer containing only calcium carbonate (for instance limestone) and/or magnesium carbonate and calcium carbonate (for instance dolomite) in addition to ammonium nitrate. The minimum content of these carbonates must be 20 % and their purity level at least 90 % | Total nitrogen<br>Nitric nitrogen<br>Ammoniacal nitrogen  |
| 6  | Ammonium sulphate-nitrate                    | Chemically obtained product containing as essential ingredients ammonium nitrate and ammonium sulphate  | 25 % N<br>Nitrogen expressed as ammoniacal and nitric nitrogen. Minimum nitric nitrogen content: 5 %   |  | Total nitrogen<br>Ammoniacal nitrogen<br>Nitric nitrogen  |
| 7  | Magnesium sulphonitrate                      | Chemically obtained product containing ammonium nitrate, ammonium sulphate and magnesium sulphate as essential ingredients  | 19 % N<br>Nitrogen expressed as ammoniacal and nitric nitrogen. Minimum nitric nitrogen content: 6 % N<br><br>5 % MgO<br>Magnesium in the form of water-soluble salts expressed as magnesium oxide                           |  | Total nitrogen<br>Ammoniacal nitrogen<br><br>Nitric nitrogen<br>Water-soluble magnesium oxide                                     |
| 8  | Magnesium ammonium nitrate                   | Chemically obtained product containing ammonium nitrates and magnesium compound salts (dolomite magnesium carbonate and/or magnesium sulphate) as essential ingredients                                   | 19 % N<br>Nitrogen expressed as ammoniacal nitrogen and nitric nitrogen. Minimum nitric nitrogen content 6 % N<br><br>5 % MgO<br>Magnesium expressed as total magnesium oxide  |  | Total nitrogen<br>Ammoniacal nitrogen<br>Nitric nitrogen<br><br>Total magnesium oxide and possibly, water-soluble magnesium oxide |
| 9  | Urea   | Chemically obtained product containing carbonyl diamide (carbamide) as its essential ingredient   | 44 % N<br>Total ureic nitrogen (including biuret). Maximum biuret content: 1,2 %   |  | Total nitrogen, expressed as ureic nitrogen   |
| 10 | Crotonylidene diurea                         | Product obtained by reaction of urea with crotonaldehyde<br>Monomeric compound  | 28 % N<br>Nitrogen expressed as total nitrogen<br>At least 25 % N from the crotonylidene diurea<br>Maximum ureic nitrogen content: 3 %   |  | Total nitrogen<br>Ureic nitrogen where this is at least 1 % by weight<br>Nitrogen from crotonylidene diurea                       |

Wednesday 10 April 2002

| No | Type designation                                       | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements   | Other data on the type of designation | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria  |
|----|--|---|--|---------------------------------------|---|
| 1  | 2  | 3   | 4  | 5                                     | 6   |
| 11 | Isobutylidene diurea                                   | Product obtained by reaction of urea with isobutyraldehyde<br>Monomeric compound  | 28 % N<br>Nitrogen expressed as total nitrogen<br>At least 25 % N from isobutylidene diurea<br>Maximum ureic nitrogen content: 3 %   |                                       | Total nitrogen<br>Ureic nitrogen where this is at least 1 % by weight<br>Nitrogen from isobutylidene diurea   |
| 12 | Urea formaldehyde                                      | Product obtained by reaction of urea with formaldehyde and containing as its essential ingredients molecules of urea formaldehyde<br>Polymeric compound | 36 % N total nitrogen<br>Nitrogen expressed as total nitrogen<br>At least 3/5 of the declared total nitrogen content must be soluble in hot water<br>At least 31 % N from urea formaldehyde<br>Maximum ureic nitrogen content: 5 %   |                                       | Total nitrogen<br>Ureic nitrogen where this is at least 1 % by weight<br>Nitrogen from formaldehyde urea that is soluble in cold water<br>Nitrogen from formaldehyde urea that is only soluble in hot water   |
| 13 | Nitrogenous fertilizer containing crotonylidene diurea | Product obtained chemically containing crotonylidene diurea and a straight nitrogen fertilizer<br>[List A-1, excluding products 3(a), 3(b) and 5]       | 18 % N expressed as total nitrogen<br>At least 3 % nitrogen in ammoniacal and/or nitric and/or ureic form<br>At least 1/3 of the declared total nitrogen content must be derived from crotonylidene diurea<br>Maximum biuret content: (ureic N + crotonylidene diurea N) $\times$ 0,026  |                                       | Total nitrogen<br>For each form amounting to at least 1 %:<br>nitric nitrogen<br>ammoniacal nitrogen<br>ureic nitrogen<br>Nitrogen from crotonylidene diurea  |
| 14 | Nitrogenous fertilizer containing isobutylidene diurea | Product obtained chemically containing isobutylidene diurea and a straight nitrogenous fertilizer<br>[List A-1, excluding products 3(a), 3(b) and 5]    | 18 % N expressed as total nitrogen<br>At least 3 % nitrogen in ammoniacal and/or nitric and/or ureic form<br>At least 1/3 of the declared total nitrogen content must derive from isobutylidene diurea<br>Maximum biuret content: (Ureic N + isobutylidene diurea N) $\times$ 0,026  |                                       | Total nitrogen<br>For each form amounting to at least 1 %:<br>nitric nitrogen<br>ammoniacal nitrogen<br>ureic nitrogen<br>Nitrogen from isobutylidene diurea  |
| 15 | Nitrogenous fertilizer containing urea formaldehyde    | Product obtained chemically containing urea formaldehyde and a straight nitrogenous fertilizer<br>[List A-1, excluding products 3(a), 3(b) and 5]       | 18 % N expressed as total nitrogen<br>At least 3 % nitrogen in ammoniacal and/or nitric and/or ureic form<br>At least 1/3 of the declared total nitrogen content must derive from urea formaldehyde<br>The nitrogen from the urea formaldehyde must contain at least 3/5 nitrogen that is soluble in hot water<br>Maximum biuret content: (Ureic N + urea formaldehyde) $\times$ 0,026 |                                       | Total nitrogen<br>For each form amounting to at least 1 %:<br>nitric nitrogen<br>ammoniacal nitrogen<br>ureic nitrogen<br>Nitrogen from urea formaldehyde<br>Nitrogen from urea formaldehyde that is soluble in cold water<br>Nitrogen from urea formaldehyde that is only soluble in hot water |

Wednesday 10 April 2002

| No | Type designation  | Data on method of production and essential ingredients                          | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements  | Other data on the type of designation | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria  |
|----|---|---|---|---------------------------------------|---|
| 1  | 2   | 3   | 4   | 5                                     | 6   |
| 16 | Ammonium sulphate with nitrification inhibitor (dicyandiamide)      | Chemically obtained product containing ammonium sulphate and dicyandiamide      | 20 % N<br>Nitrogen expressed as total nitrogen<br>Minimum ammoniacal nitrogen content: 18 %<br>Minimum content of nitrogen from dicyandiamide: 1,5 %  |                                       | Total nitrogen<br>Ammoniacal nitrogen<br>Nitrogen from dicyandiamide<br>Technical information <sup>(4)</sup>                    |
| 17 | Ammonium sulphonitrate with nitrification inhibitor (dicyandiamide) | Chemically obtained product containing ammonium sulphonitrate and dicyandiamide | 24 % N<br>Nitrogen expressed as total nitrogen<br>Minimum nitric nitrogen content: 3 %<br>Minimum content of nitrogen from dicyandiamide: 1,5 %   |                                       | Total nitrogen<br>Nitric nitrogen<br>Ammoniacal nitrogen<br>Nitrogen from dicyandiamide<br>Technical information <sup>(4)</sup> |
| 18 | Urea — ammonium sulphate  | Product obtained chemically from urea and ammonium sulphate                     | 30 % N<br>Nitrogen expressed as ammoniacal and ureic nitrogen<br>Minimum ammoniacal nitrogen content: 4 %<br>Minimum sulphur content expressed as sulphur trioxide: 12 %<br>Maximum biuret content: 0,9 % |                                       | Total nitrogen<br>Ammoniacal nitrogen<br>Ureic nitrogen<br>Water-soluble sulphur trioxide                                       |

<sup>(4)</sup> Technical information as complete as possible must be provided with each package or bulk consignment by the person responsible for marketing. This information must in particular enable the user to determine the rates and timing of application in relation to the crop being grown.

## A.2. Phosphatic fertilizers

Where a particle size criterion is prescribed for the basic constituent materials of fertilizers sold in granular form (fertilizers 1, 3, 4, 5, 6 and 7), it will be established by an appropriate analytical method.

| No | Type designation                                    | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements  | Other data on the type of designation | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria   |
|----|---|---|---|---------------------------------------|--|
| 1  | 2   | 3   | 4   | 5                                     | 6  |
| 1  | Basic slag:<br>- Thomas phosphates<br>- Thomas slag | Product obtained in iron-smelting by treatment of the phosphorus melts and containing calcium silicophosphates as its essential ingredients | 12 % P <sub>2</sub> O <sub>5</sub><br>Phosphorus expressed as phosphorus pentoxide soluble in mineral acids, at least 75 % of the declared content of phosphorus pentoxide being soluble in 2 % citric acid, or 10 % P <sub>2</sub> O <sub>5</sub><br>Phosphorus expressed as phosphorus pentoxide soluble in 2 % citric acid<br>Particle size:<br>- at least 75 % able to pass through a sieve with a mesh of 0,160 mm<br>- at least 96 % able to pass through a sieve with a mesh of 0,630 mm |                                       | Total phosphorus pentoxide (soluble in mineral acids)<br>75 % of which (to be indicated as percentage by weight) is soluble in 2 % citric acid (for marketing in France, Italy, Spain, Portugal and Greece)<br>Total phosphorus pentoxide (soluble in mineral acids) and phosphorus pentoxide soluble in 2 % citric acid (for marketing in the United Kingdom)<br>Phosphorus pentoxide soluble in 2 % citric acid (for marketing in Germany, Belgium, Denmark, Ireland, Luxembourg, the Netherlands and Austria) |

Wednesday 10 April 2002

| No   | Type designation                     | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements  | Other data on the type of designation | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria       |
|------|--------------------------------------|---|---|---------------------------------------|--|
| 1    | 2                                    | 3   | 4   | 5                                     | 6  |
| 2(a) | Single super-phosphate               | Product obtained by reaction of ground mineral phosphate with sulphuric acid and containing mono-calcium phosphate as an essential ingredient as well as calcium sulphate   | 16 % $P_2O_5$<br>Phosphorus expressed as $P_2O_5$ soluble in neutral ammonium citrate, at least 93 % of the declared content of $P_2O_5$ being water-soluble<br>Test sample: 1 g  |                                       | Phosphorus pentoxide soluble in neutral ammonium citrate<br>Water-soluble phosphorus pentoxide |
| 2(b) | Concentrated superphosphate          | Product obtained by reaction of ground mineral phosphate with sulphuric acid and phosphoric acid and containing monocalcium phosphate as an essential ingredient as well as calcium sulphate                        | 25 % $P_2O_5$<br>Phosphorus expressed as $P_2O_5$ soluble in neutral ammonium citrate, at least 93 % of the declared content of $P_2O_5$ being water-soluble<br>Test sample: 1 g  |                                       | Phosphorus pentoxide soluble in neutral ammonium citrate<br>Water-soluble phosphorus pentoxide |
| 2(c) | Triple super-phosphate               | Product obtained by reaction of ground mineral phosphate with phosphoric acid and containing monocalcium phosphate as its essential ingredient  | 38 % $P_2O_5$<br>Phosphorus expressed as $P_2O_5$ soluble in neutral ammonium citrate, at least 93 % of the declared content of $P_2O_5$ being water-soluble<br>Test sample: 3 g  |                                       | Phosphorus pentoxide soluble in neutral ammonium citrate<br>Water-soluble phosphorus pentoxide |
| 3    | Partially solubilised rock phosphate | Product obtained by partial solubilisation of ground rock phosphate with sulphuric acid or phosphoric acid and containing as essential ingredients monocalcium phosphate, tricalcium phosphate and calcium sulphate | 20 % $P_2O_5$<br>Phosphorus expressed as $P_2O_5$ soluble in mineral acids, at least 40 % of the declared content of $P_2O_5$ being water-soluble<br>Particle size:<br>- at least 90 % able to pass through a sieve with a mesh of 0,160 mm<br>- at least 98 % able to pass through a sieve with a mesh of 0,630 mm |                                       | Total phosphorus pentoxide (soluble in mineral acids)<br>Phosphorus pentoxide soluble in water |
| 4    | Dicalcium phosphate                  | Product obtained by precipitation of solubilised phosphoric acid from mineral phosphates or bones, and containing dicalcium phosphate dihydrate as its essential ingredient   | 38 % $P_2O_5$<br>Phosphorus expressed as $P_2O_5$ soluble in alkaline ammonium citrate (Petermann)<br>Particle size:<br>- at least 90 % able to pass through a sieve with a mesh of 0,160 mm<br>- at least 98 % able to pass through a sieve with a mesh of 0,630 mm  |                                       | Phosphorus pentoxide soluble in alkaline ammonium citrate                                      |

Wednesday 10 April 2002

| No | Type designation            | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements  | Other data on the type of designation | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria  |
|----|-----------------------------|---|---|---------------------------------------|---|
| 1  | 2                           | 3   | 4   | 5                                     | 6   |
| 5  | Calcined phosphate          | Product obtained by heat treatment of ground rock phosphate with alkaline compounds and silicic acid, and containing alkaline calcium phosphate and calcium silicate as essential ingredients | 25 % $P_2O_5$<br>Phosphorus expressed as $P_2O_5$ soluble in alkaline ammonium citrate (Petermann)<br>Particle size:<br>- at least 75 % able to pass through a sieve with a mesh of 0,160 mm<br>- at least 96 % able to pass through a sieve with a mesh of 0,630 mm  |                                       | Phosphorus pentoxide soluble in alkaline ammonium citrate   |
| 6  | Aluminium-calcium phosphate | Product obtained in amorphous form by heat treatment and grinding, containing aluminium and calcium phosphates as essential ingredients   | 30 % $P_2O_5$<br>Phosphorus expressed as $P_2O_5$ soluble in mineral acids, at least 75 % of the declared content of $P_2O_5$ being soluble in alkaline ammonium citrate (Joulie)<br>Particle size:<br>- at least 90 % able to pass through a sieve with a mesh of 0,160 mm<br>- at least 98 % able to pass through a sieve with a mesh of 0,630 mm |                                       | Total phosphorus pentoxide (soluble in mineral acids)<br>Phosphorus pentoxide soluble in alkaline ammonium citrate  |
| 7  | Soft ground rock phosphate  | Product obtained by grinding soft mineral phosphates and containing tricalcium phosphate and calcium carbonate as essential ingredients   | 25 % $P_2O_5$<br>Phosphorus expressed as $P_2O_5$ soluble in mineral acids, at least 55 % of the declared content of $P_2O_5$ being soluble in 2 % formic acid<br>Particle size:<br>- at least 90 % able to pass through a sieve with a mesh of 0,063 mm<br>- at least 99 % able to pass through a sieve with a mesh of 0,125 mm                    |                                       | Total phosphorus pentoxide (soluble in mineral acids)<br>Phosphorus pentoxide soluble in 2 % formic acid<br>Percentage by weight of material able to pass through a sieve with a mesh of 0,063 mm |

## A.3. Potassic fertilizers

| No | Type designation | Data on method of production and essential ingredients | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements  | Other data on the type of designation | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria |
|----|------------------|--|---|---------------------------------------|--|
| 1  | 2                | 3  | 4   | 5                                     | 6  |
| 1  | Kainit           | Product obtained from crude potassium salts            | 10 % $K_2O$<br>Potassium expressed as water-soluble $K_2O$<br>5 % $MgO$<br>Magnesium in the form of water-soluble salts, expressed as magnesium oxide | Usual trade names may be added        | Water-soluble potassium oxide<br>Water-soluble magnesium oxide                           |

Wednesday 10 April 2002

| No | Type designation                              | Data on method of production and essential ingredients   | Minimum content of nutrients (percentage by weight); data on the expression of nutrients; other requirements   | Other data on the type of designation | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria                                 |
|----|---|--|--|---------------------------------------|--|
| 1  | 2   | 3  | 4  | 5                                     | 6  |
| 2  | Enriched kainit salt                          | Product obtained from crude potassium salts enriched by blending with potassium chloride   | 18 % K <sub>2</sub> O<br>Potassium expressed as water-soluble K <sub>2</sub> O   | Usual trade names may be added        | Water-soluble potassium oxide<br>Optional mention of the water-soluble magnesium oxide content where higher than 5 % MgO |
| 3  | Muriate of potash                             | Product obtained from crude potassium salts and containing potassium chloride as its essential ingredient  | 37 % K <sub>2</sub> O<br>Potassium expressed as water-soluble K <sub>2</sub> O   | Usual trade names may be added        | Water-soluble potassium oxide  |
| 4  | Potassium chloride containing magnesium salts | Product obtained from crude potassium salts with added magnesium salts and containing potassium chloride and magnesium salts as essential ingredients                          | 37 % K <sub>2</sub> O<br>Potassium expressed as water-soluble K <sub>2</sub> O<br>5 % MgO<br>Magnesium in the form of water-soluble salts, expressed as magnesium oxide  |                                       | Water-soluble potassium oxide<br>Water-soluble magnesium oxide   |
| 5  | Sulphate of potash                            | Product obtained chemically from potassium salts and containing potassium sulphate as its essential ingredient   | 47 % K <sub>2</sub> O<br>Potassium expressed as water-soluble K <sub>2</sub> O. Maximum chloride content: 3 % Cl   |                                       | Water-soluble potassium oxide<br>Optional mention of the chloride content  |
| 6  | Sulphate of potash containing magnesium salt  | Product obtained chemically from potassium salts, possibly with addition of magnesium salts, and containing potassium sulphate and magnesium sulphate as essential ingredients | 22 % K <sub>2</sub> O<br>Potassium expressed as water-soluble K <sub>2</sub> O<br>8 % MgO<br>Magnesium in the form of water-soluble salts, expressed as magnesium oxide. Maximum chloride content: 3 % Cl      | Usual trade names may be added        | Water-soluble potassium oxide<br>Water-soluble magnesium oxide<br>Optional mention of the chloride content               |
| 7  | Kieserite with potassium sulphate             | Product obtained from Kieserite with potassium sulphate added  | 8 % MgO<br>Magnesium expressed as water-soluble MgO<br>6 % K <sub>2</sub> O<br>Potassium expressed as water-soluble K <sub>2</sub> O<br>Total MgO + K <sub>2</sub> O: 20 %<br>Maximum chloride content: 3 % Cl | Usual trade names may be added        | Water-soluble magnesium oxide<br>Water-soluble potassium oxide<br>Optional mention of the chloride content               |

## B. Inorganic compound primary nutrient fertilizers

## B.1. NPK fertilizers

|        |  |  |
|--------|--|--|
| B.1.1. | Type designation:                                    | NPK fertilizers.   |
|        | Data on method of production:                        | Product obtained chemically or by blending, without addition of organic nutrients of animal or vegetable origin.   |
|        | Minimum content of nutrients (percentage by weight): | - Total: 20 % (N + P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O);<br>- For each of the nutrients: 3 % N, 5 % P <sub>2</sub> O <sub>5</sub> , 5 % K <sub>2</sub> O. |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size      |  |                                | Data for identification of the fertilizers;<br>other requirements   |   |   |
|--|--|--------------------------------|---|---|---|
| N  | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O               | N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O  |
| 1  | 2  | 3                              | 4   | 5   | 6   |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen<br>(5) Cyanamide nitrogen | (1) Water-soluble P <sub>2</sub> O <sub>5</sub><br>(2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate<br>(3) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and in water<br>(4) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids only<br>(5) P <sub>2</sub> O <sub>5</sub> soluble in alkaline ammonium citrate (Petermann)<br>(6a) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids, of which at least 75 % of the declared P <sub>2</sub> O <sub>5</sub> content is soluble in 2 % citric acid | Water soluble K <sub>2</sub> O | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (5) amounts to at least 1 % by weight, it must be declared<br>(3) If above 28 %, see Annex III.2 | 1. An NPK fertilizer free from Thomas slag, calcined phosphate, aluminium-calcium phosphate, partially solubilised rock phosphate and soft ground rock phosphate must be declared in accordance with solubilities (1), (2) or (3):<br>- when the water-soluble P <sub>2</sub> O <sub>5</sub> does not amount to 2 %, solubility (2) only shall be declared;<br>- when the water-soluble P <sub>2</sub> O <sub>5</sub> is at least 2 %, solubility (3) shall be declared, and the water-soluble P <sub>2</sub> O <sub>5</sub> content must be indicated [solubility (1)].<br>The P <sub>2</sub> O <sub>5</sub> content soluble in mineral acids only must not exceed 2 %.<br>For this type 1, the test sample for determining solubilities (2) and (3) shall be 1 g.   | 1. Water-soluble potassium oxide<br>2. The indication 'low in chloride' is linked to a maximum content of 2 % Cl<br>3. Chloride content may be declared |
|  | (6b) P <sub>2</sub> O <sub>5</sub> soluble in 2 % citric acid<br>(7) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids, of which at least 75 % of the declared P <sub>2</sub> O <sub>5</sub> content is soluble in alkaline ammonium citrate (Joulie)<br>(8) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids, of which at least 55 % of the declared P <sub>2</sub> O <sub>5</sub> content is soluble in 2 % formic acid   |                                |   | 2(a) An NPK fertilizer containing soft ground rock phosphate or partially solubilised rock phosphate must be free from Thomas slag, calcined phosphate and aluminium-calcium phosphate. It shall be declared in accordance with solubilities (1), (3) and (4)<br>This type of fertilizer must contain:<br>- at least 2 % P <sub>2</sub> O <sub>5</sub> soluble in mineral acids only [solubility (4)];<br>- at least 5 % P <sub>2</sub> O <sub>5</sub> soluble in water and neutral ammonium citrate [solubility (3)];<br>- at least 2.5 % water-soluble P <sub>2</sub> O <sub>5</sub> [solubility (1)].<br>This type of fertilizer must be marketed under the designation 'NPK fertilizer containing soft ground rock phosphate' or 'NPK fertilizer containing partially solubilised rock phosphate'. For this type 2(a), the test sample for determining solubility (3) shall be 3 g. |   |



Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |                               |  | Data for identification of the fertilizers;<br>other requirements |   |                  |
|---|-------------------------------|--|---|---|------------------|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O   | N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O |
| 1   | 2                             | 3  | 4   | 5   | 6                |
|   |                               |  |   | <p>2(b) An NPK fertilizer containing aluminium-calcium phosphate must be free from Thomas slag, calcined phosphate, soft ground rock phosphate and partially solubilised rock phosphate. It shall be declared in accordance with solubilities (1) and (7), the latter applying after deduction of the solubility in water. This type of fertilizer must contain:</p> <ul style="list-style-type: none"> <li>- at least 2 % of water-soluble P<sub>2</sub>O<sub>5</sub> [solubility (1)];</li> <li>- at least 5 % of P<sub>2</sub>O<sub>5</sub> according to solubility (7).</li> </ul> <p>This type of fertilizer must be marketed under the designation 'NPK fertilizer containing aluminium-calcium phosphate'.</p> |                  |
| Particle size of the basic phosphatic ingredients   |                               |  |   |   |                  |
| Thomas slag:  |                               | at least 75 % able to pass through a sieve with a mesh of 0,160 mm |   |   |                  |
| Aluminium-calcium phosphate:  |                               | at least 90 % able to pass through a sieve with a mesh of 0,160 mm |   |   |                  |
| Calcined phosphate:   |                               | at least 75 % able to pass through a sieve with a mesh of 0,160 mm |   |   |                  |
| Soft ground rock phosphate:   |                               | at least 90 % able to pass through a sieve with a mesh of 0,063 mm |   |   |                  |
| Partially solubilised rock phosphate:   |                               | at least 90 % able to pass through a sieve with a mesh of 0,160 mm |   |   |                  |
|   |                               |  |   | <p>3. In the case of NPK fertilizers containing only one of the following types of phosphatic fertilizer: Thomas slag, calcined phosphate, aluminium-calcium phosphate, soft ground rock phosphate, the type designation must be followed by an indication of the phosphate ingredient. The declaration of the solubility of the P<sub>2</sub>O<sub>5</sub> must be given in accordance with the following solubilities:</p> <ul style="list-style-type: none"> <li>- for fertilizers based on Thomas slag: solubility (6a) (France, Italy, Spain, Portugal, Greece), (6b) (Germany, Belgium, Denmark, Ireland, Luxembourg, Netherlands, United-Kingdom and Austria);</li> </ul>                                      |                  |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |                               |                  | Data for identification of the fertilizers;<br>other requirements |   |                  |
|---|-------------------------------|------------------|---|---|------------------|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O |
| 1   | 2                             | 3                | 4   | 5   | 6                |
|   |                               |                  |   | <ul style="list-style-type: none"> <li>- for fertilizers based on calcined phosphate: solubility (5);</li> <li>- for fertilizers based on aluminium-calcium phosphate: solubility (7);</li> <li>- for fertilizers based on soft ground rock phosphate: solubility (8).</li> </ul> |                  |

## B.1. NPK fertilizer (continued)

|        |  |   |
|--------|--|---|
| B.1.2. | Type designation:                                    | NPK fertilizer containing crotonylidene diurea or isobutylidene diurea or urea formaldehyde (as appropriate).   |
|        | Data on method of production:                        | Product obtained chemically without addition of organic nutrients of animal or vegetable origin and containing crotonylidene diurea or isobutylidene diurea or urea formaldehyde.   |
|        | Minimum content of nutrients (percentage by weight): | <ul style="list-style-type: none"> <li>- Total: 20 % (N + P<sub>2</sub>O<sub>5</sub> + K<sub>2</sub>O);</li> <li>- For each of the nutrients: <ul style="list-style-type: none"> <li>- 5 % N. At least 1/4 of the declared content of total nitrogen must derive from nitrogen form (5) or (6) or (7). At least 3/5 of the declared nitrogen content (7) must be soluble in hot water,</li> <li>- 5 % P<sub>2</sub>O<sub>5</sub>,</li> <li>- 5 % K<sub>2</sub>O.</li> </ul> </li> </ul> |

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size   |  |                                | Data for identification of the fertilizers;<br>other requirements   |  |   |
|---|--|--------------------------------|---|--|---|
| N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O               | N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O  |
| 1   | 2  | 3                              | 4   | 5  | 6   |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen<br>(5) Nitrogen from crotonylidene diurea<br>(6) Nitrogen from isobutylidene diurea<br>(7) Nitrogen from urea formaldehyde<br>(8) Nitrogen from urea formaldehyde that is only soluble in hot water<br>(9) Nitrogen from urea formaldehyde that is soluble in cold water | Water-soluble P <sub>2</sub> O <sub>5</sub><br>P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate<br>P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and in water | Water-soluble K <sub>2</sub> O | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (4) amounts to at least 1 % by weight, it must be declared<br>(3) One of the forms of nitrogen (5) to (7) (as appropriate). Nitrogen form (7) must be declared in the form of nitrogen (8) and (9) | An NPK fertilizer free from Thomas slag, calcined phosphate, aluminium-calcium phosphate, partially solubilised rock phosphate and rock phosphate must be declared in accordance with solubilities (1), (2) or (3): <ul style="list-style-type: none"> <li>- when the water-soluble P<sub>2</sub>O<sub>5</sub> does not amount to 2 %, solubility (2) only shall be declared,</li> <li>- when the water-soluble P<sub>2</sub>O<sub>5</sub> is at least 2 %, solubility (3) shall be declared, and the water-soluble P<sub>2</sub>O<sub>5</sub> content must be indicated [solubility (1)].</li> </ul> The P <sub>2</sub> O <sub>5</sub> content soluble in mineral acids only must not exceed 2 %.<br>The test sample for determining solubilities (2) and (3) shall be 1 g. | Water-soluble potassium oxide<br>The indication 'low in chloride' is linked to a maximum content of 2 % Cl<br>Chloride content may be declared. |

Wednesday 10 April 2002

## B.2. NP fertilizers

|        |  |  |
|--------|--|--|
| B.2.1. | Type designation:                                    | NP fertilizers.  |
|        | Data on method of production:                        | Product obtained chemically or by blending without addition of organic nutrients of animal or vegetable origin.                |
|        | Minimum content of nutrients (percentage by weight): | - Total: 18 % (N + P <sub>2</sub> O <sub>5</sub> );<br>- For each of the nutrients: 3 % N, 5 % P <sub>2</sub> O <sub>5</sub> . |

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size      |  |                  | Data for identification of the fertilizers;<br>other requirements   |  |                  |
|--|--|------------------|---|--|------------------|
| N  | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O | N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O |
| 1  | 2  | 3                | 4   | 5  | 6                |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen<br>(5) Cyanamide nitrogen | (1) Water-soluble P <sub>2</sub> O <sub>5</sub><br>(2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate<br>(3) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and in water<br>(4) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids only<br>(5) P <sub>2</sub> O <sub>5</sub> soluble in alkaline ammonium citrate (Petermann)<br>(6a) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids, of which at least 75 % of the declared P <sub>2</sub> O <sub>5</sub> content is soluble in 2 % citric acid |                  | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (5) amounts to at least 1 % by weight, it must be declared | 1. An NP fertilizer free from Thomas slag, calcined phosphate, aluminium-calcium phosphate, partially solubilised rock phosphate and soft ground rock phosphate must be declared in accordance with solubilities (1), (2) or (3):<br>- when the water-soluble P <sub>2</sub> O <sub>5</sub> does not amount to 2 %, solubility (2) only shall be declared;<br>- when the water-soluble P <sub>2</sub> O <sub>5</sub> is at least 2 %, solubility (3) shall be declared, and the water-soluble P <sub>2</sub> O <sub>5</sub> content must be indicated [solubility (1)].<br>The P <sub>2</sub> O <sub>5</sub> content soluble in mineral acids only must not exceed 2 %.<br>For this type 1, the test sample for determining solubilities (2) and (3) shall be 1 g. |                  |
|  | (6b) P <sub>2</sub> O <sub>5</sub> soluble in 2 % citric acid<br>(7) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids of which at least 75 % of the declared P <sub>2</sub> O <sub>5</sub> content is soluble in alkaline ammonium citrate (Joulie)<br>(8) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids of which at least 55 % of the declared P <sub>2</sub> O <sub>5</sub> content is soluble in 2 % formic acid   |                  |   | 2(a) A NP fertilizer containing soft ground rock phosphate or partially solubilised rock phosphate must be free from Thomas slag, calcined phosphate and aluminium-calcium phosphate.<br>It shall be declared in accordance with solubilities (1), (3) and (4).<br>This type of fertilizer must contain:<br>- at least 2 % P <sub>2</sub> O <sub>5</sub> soluble in mineral acids only [solubility (4)];<br>- at least 5 % P <sub>2</sub> O <sub>5</sub> soluble in water and neutral ammonium citrate [solubility (3)];   |                  |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |                               |  | Data for identification of the fertilizers;<br>other requirements |   |                  |
|---|-------------------------------|--|---|---|------------------|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O   | N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O |
| 1   | 2                             | 3  | 4   | 5   | 6                |
|   |                               |  |   | - at least 2,5 % water soluble P <sub>2</sub> O <sub>5</sub> [solubility (1)]. This type of fertilizer must be marketed under the designation 'NP fertilizer containing soft ground rock phosphate' or 'NP fertilizer containing partially solubilised rock phosphate'. For this type 2(a), the test sample for determining solubility (3) shall be 3 g.  |                  |
|   |                               |  |   | 2(b) A NP fertilizer containing aluminium-calcium phosphate, must be free from Thomas slag, calcined phosphate, soft ground rock phosphate and partially solubilised rock phosphate. It shall be declared in accordance with solubilities (1) and (7), the latter applying after deduction of the solubility in water. This type of fertilizer must contain: <ul style="list-style-type: none"> <li>- at least 2 % water-soluble P<sub>2</sub>O<sub>5</sub> [solubility (1)];</li> <li>- at least 5 % P<sub>2</sub>O<sub>5</sub> according to solubility (7).</li> </ul> This type of fertilizer must be marketed under the designation 'NP fertilizer containing aluminium-calcium phosphate'. |                  |
| Particle size of the basic phosphatic ingredients:  |                               |  |   |   |                  |
| Thomas slag:  |                               | at least 75 % able to pass through a sieve with a mesh of 0,160 mm |   |   |                  |
| Aluminium-calcium phosphate   |                               | at least 90 % able to pass through a sieve with a mesh of 0,160 mm |   |   |                  |
| Calcined phosphate  |                               | at least 75 % able to pass through a sieve with a mesh of 0,160 mm |   |   |                  |
| Soft ground rock phosphate  |                               | at least 90 % able to pass through a sieve with a mesh of 0,063 mm |   |   |                  |
| Partially solubilised rock phosphate  |                               | at least 90 % able to passthrough a sieve with a mesh of 0.160 mm  |   |   |                  |
|   |                               |  |   | 3. In the case of NP fertilizers containing only one of the following types of phosphatic fertilizer: Thomas slag, calcined phosphate, aluminium-calcium phosphate, soft ground rock phosphate, the type designation must be followed by an indication of the phosphate ingredient.   |                  |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |                               |                  | Data for identification of the fertilizers;<br>other requirements |  |                  |
|---|-------------------------------|------------------|---|--|------------------|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O |
| 1   | 2                             | 3                | 4   | 5  | 6                |
|   |                               |                  |   | <p>The declaration of the solubility of the P<sub>2</sub>O<sub>5</sub> must be given in accordance with the following solubilities:</p> <ul style="list-style-type: none"> <li>- for fertilizers based on Thomas slag: solubility (6a) (France, Italy, Spain, Portugal, Greece), (6b) (Germany, Belgium, Denmark, Ireland, Luxembourg, Netherlands, United Kingdom and Austria);</li> <li>- for fertilizers based on calcined phosphate: solubility (5);</li> <li>- for fertilizers based on aluminium-calcium phosphate: solubility (7);</li> <li>- for fertilizers based on soft ground rock phosphate: solubility (8).</li> </ul> |                  |

## B.2. NP fertilizers (continued)

|        |  |  |
|--------|--|--|
| B.2.2. | Type designation:                                    | NP fertilizer containing crotonylidene diurea or isobutylidene diurea or urea formaldehyde (as appropriate)  |
|        | Data on method of production:                        | Product obtained chemically without addition of organic nutrients of animal or vegetable origin and containing crotonylidene diurea or isobutylidene diurea or urea formaldehyde   |
|        | Minimum content of nutrients (percentage by weight): | <ul style="list-style-type: none"> <li>- Total: 18 % (N + P<sub>2</sub>O<sub>5</sub>);</li> <li>- For each of the nutrients: <ul style="list-style-type: none"> <li>- 5 % N.</li> <li>- At least 1/4 of the declared content of total nitrogen must derive from nitrogen form (5) or (6) or (7). At least 3/5 of the declared nitrogen content (7) must be soluble in hot water,</li> <li>- 5 % P<sub>2</sub>O<sub>5</sub>,</li> </ul> </li> </ul> |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size   |  |                  | Data for identification of the fertilizers;<br>other requirements   |  |                  |
|---|--|------------------|---|--|------------------|
| N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O | N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O |
| 1   | 2  | 3                | 4   | 5  | 6                |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen<br>(5) Nitrogen from crotonylidene diurea<br>(6) Nitrogen from isobutylidene diurea<br>(7) Nitrogen from urea formaldehyde<br>(8) Nitrogen from urea formaldehyde that is only soluble in hot water<br>(9) Nitrogen from urea formaldehyde that is soluble in cold water | (1) Water-soluble P <sub>2</sub> O <sub>5</sub><br>(2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate<br>(3) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and in water |                  | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (4) amounts to at least 1 % by weight, it must be declared<br>(3) One of the forms of nitrogen (5) to (7) (as appropriate). Nitrogen form (7) must be declared in the form of nitrogen (8) and (9) | An NP fertilizer free of Thomas slag, calcined phosphate, aluminium-calcium phosphate, partially solubilised rock phosphate and rock phosphate must be declared in accordance with solubilities (1), (2) or (3):<br>- when the water-soluble P <sub>2</sub> O <sub>5</sub> does not amount to 2 %, solubility (2) only shall be declared;<br>- when the water-soluble P <sub>2</sub> O <sub>5</sub> is at least 2 %, solubility (3) shall be declared, and the water-soluble P <sub>2</sub> O <sub>5</sub> content must be indicated [solubility (1)].<br>The P <sub>2</sub> O <sub>5</sub> content soluble in mineral acids only must not exceed 2 %.<br>The test sample for determining solubilities (2) and (3) shall be 1 g. |                  |

## B.3. NK fertilizers

|        |  |  |
|--------|--|--|
| B.3.1. | Type designation:                                    | NK fertilizers.  |
|        | Data on method of production:                        | Product obtained chemically or by blending, without addition of organic nutrients of animal or vegetable origin. |
|        | Minimum content of nutrients (percentage by weight): | - Total: 8 % (N + K <sub>2</sub> O);<br>- For each of the nutrients: 3 % N, 5 % K <sub>2</sub> O.                |

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size      |                               |                                | Data for identification of the fertilizers;<br>other requirements   |                               |  |
|--|-------------------------------|--------------------------------|---|-------------------------------|--|
| N  | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O               | N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O   |
| 1  | 2                             | 3                              | 4   | 5                             | 6  |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen<br>(5) Cyanamide nitrogen |                               | Water-soluble K <sub>2</sub> O | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (5) amounts to at least 1 % by weight, it must be declared |                               | (1) Water-soluble potassium oxide<br>(2) The indication 'low in chloride' is linked to a maximum content of 2 % Cl<br>(3) Chloride content may be declared |

Wednesday 10 April 2002

## B.3. NK fertilizers (continued)

|        |  |  |
|--------|--|--|
| B.3.2. | Type designation:                                    | NK fertilizer containing crotonylidene diurea or isobutylidene diurea or urea formaldehyde (as appropriate).   |
|        | Data on method of production:                        | Product obtained chemically without addition of organic nutrients of animal or vegetable origin and containing crotonylidene diurea or isobutylidene diurea or urea formaldehyde.  |
|        | Minimum content of nutrients (percentage by weight): | <ul style="list-style-type: none"> <li>- Total: 18 % (N + K<sub>2</sub>O);</li> <li>- For each of the nutrients: <ul style="list-style-type: none"> <li>- 5 % N<br/>At least 1/4 of the declared content of total nitrogen must derive from nitrogen form (5) or (6) or (7).<br/>At least 3/5 of the declared nitrogen content (7) must be soluble in hot water,</li> <li>- 5 % K<sub>2</sub>O.</li> </ul> </li> </ul> |

| Forms, solubilities and nutrient content to be declared as specified in columns 4, 5 and 6; particle size   |                               |                                | Data for identification of the fertilizers; other requirements   |                               |  |
|---|-------------------------------|--------------------------------|--|-------------------------------|--|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O               | N  | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O   |
| 1   | 2                             | 3                              | 4  | 5                             | 6  |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen<br>(5) Nitrogen from crotonylidene diurea<br>(6) Nitrogen from isobutylidene diurea<br>(7) Nitrogen from urea formaldehyde<br>(8) Nitrogen from urea formaldehyde that is only soluble in hot water<br>(9) Nitrogen from urea formaldehyde that is soluble in cold water |                               | Water-soluble K <sub>2</sub> O | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (4) amounts to at least 1 % by weight, it must be declared<br>One of the forms of nitrogen (5) to (7) (as appropriate).<br>(3) Nitrogen form (7) must be declared in the form of nitrogen (8) and (9) |                               | (1) Water-soluble potassium oxide<br>(2) The indication 'low in chloride' is linked to a maximum content of 2 % Cl.<br>(3) Chloride content may be declared. |

## B.4. PK fertilizers

|  |  |
|--|--|
| Type designation:                                    | PK fertilizers.  |
| Data on method of production:                        | Product obtained chemically or by blending, without addition of organic nutrients of animal or vegetable origin.   |
| Minimum content of nutrients (percentage by weight): | <ul style="list-style-type: none"> <li>- Total: 18 % (P<sub>2</sub>O<sub>5</sub> + K<sub>2</sub>O);</li> <li>- For each of the nutrients: 5 % P<sub>2</sub>O<sub>5</sub>, 5 % K<sub>2</sub>O.</li> </ul> |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |  |                                | Data for identification of the fertilizers;<br>other requirements |  |   |
|---|--|--------------------------------|---|--|---|
| N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O               | N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O  |
| 1   | 2  | 3                              | 4   | 5  | 6   |
|   | <p>(1) Water-soluble P<sub>2</sub>O<sub>5</sub></p> <p>(2) P<sub>2</sub>O<sub>5</sub> soluble in neutral ammonium citrate</p> <p>(3) P<sub>2</sub>O<sub>5</sub> soluble in neutral ammonium citrate and in water</p> <p>(4) P<sub>2</sub>O<sub>5</sub> soluble in mineral acids only</p> <p>(5) P<sub>2</sub>O<sub>5</sub> soluble in alkaline ammonium citrate (Petermann)</p> <p>(6a) P<sub>2</sub>O<sub>5</sub> soluble in mineral acids, of which at least 75 % of the declared P<sub>2</sub>O<sub>5</sub> content is soluble in 2 % citric acid</p> | Water soluble K <sub>2</sub> O |   | <p>1. A PK fertilizer free from Thomas slag, calcined phosphate, aluminium-calcium phosphate, partially solubilised rock phosphate and soft ground rock phosphate must be declared in accordance with solubilities (1), (2) or (3):</p> <ul style="list-style-type: none"> <li>- when the water-soluble P<sub>2</sub>O<sub>5</sub> does not amount to 2 % solubility (2) only shall be declared;</li> <li>- when the water-soluble P<sub>2</sub>O<sub>5</sub> is at least 2 % solubility (3) shall be declared and the water-soluble P<sub>2</sub>O<sub>5</sub> content must be indicated [solubility (1)].</li> </ul> <p>The P<sub>2</sub>O<sub>5</sub> content soluble in mineral acids only must not exceed 2 %.</p> <p>For this type 1, the test sample for determining solubilities (2) and (3) shall be 1 g.</p>   | <p>(1) Water-soluble potassium oxide</p> <p>(2) The indication 'low in chloride' is linked to a maximum content of 2 % Cl</p> <p>(3) Chloride content may be declared</p> |
|   | <p>(6b) P<sub>2</sub>O<sub>5</sub> soluble in 2 % citric acid</p> <p>(7) P<sub>2</sub>O<sub>5</sub> soluble in mineral acids of which at least 75 % of the declared P<sub>2</sub>O<sub>5</sub> content is soluble in alkaline ammonium citrate (Joulie)</p> <p>(8) P<sub>2</sub>O<sub>5</sub> soluble in mineral acids, of which at least 55 % of the declared P<sub>2</sub>O<sub>5</sub> content is soluble in 2 % formic acid</p>  |                                |   | <p>2(a) A PK fertilizer containing soft ground rock phosphate or partially solubilised rock phosphate must be free from Thomas slag, calcined phosphate and aluminium-calcium phosphate.</p> <p>It shall be declared in accordance with solubilities (1), (3) and (4)</p> <p>This type of fertilizer must contain:</p> <ul style="list-style-type: none"> <li>- at least 2 % P<sub>2</sub>O<sub>5</sub> soluble in mineral acids only [solubility (4)];</li> <li>- at least 5 % P<sub>2</sub>O<sub>5</sub> soluble in water and neutral ammonium citrate [solubility (3)];</li> <li>- at least 2,5 % water-soluble P<sub>2</sub>O<sub>5</sub> [solubility (1)].</li> </ul> <p>This type of fertilizer must be marketed under the designation 'PK fertilizer containing soft ground rock phosphate' or 'PK fertilizer containing partially solubilised rock phosphate'.</p> <p>For this type 2(a), the test sample for determining solubility (3) shall be 3 g.</p> |   |



Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |                               |  | Data for identification of the fertilizers;<br>other requirements |  |                  |
|---|-------------------------------|--|---|--|------------------|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O   | N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O |
| 1   | 2                             | 3  | 4   | 5  | 6                |
|   |                               |  |   | <p>2(b) A PK fertilizer containing aluminium-calcium phosphate must be free from Thomas slag, calcined phosphate and partially solubilised rock phosphate. It shall be declared in accordance with solubilities (1) and (7), the latter applying after deduction of the solubility in water. This type of fertilizer must contain:</p> <ul style="list-style-type: none"> <li>- at least 2 % water-soluble P<sub>2</sub>O<sub>5</sub> [solubility (1)];</li> <li>- at least 5 % P<sub>2</sub>O<sub>5</sub> according to solubility (7).</li> </ul> <p>This type of fertilizer must be marketed under the designation 'PK fertilizer containing aluminium-calcium phosphate'.</p> |                  |
| Particle size of the basic phosphatic ingredients   |                               |  |   |  |                  |
| Thomas slag:  |                               | at least 75 % able to pass through a sieve with a mesh of 0,160 mm |   |  |                  |
| Aluminium-calcium phosphate   |                               | at least 90 % able to pass through a sieve with a mesh of 0,160 mm |   |  |                  |
| Calcined phosphate  |                               | at least 75 % able to pass through a sieve with a mesh of 0,160 mm |   |  |                  |
| Soft ground rock phosphate  |                               | at least 90 % able to passthrough a sieve with a mesh of 0,063 mm  |   |  |                  |
| Partially solubilised rock phosphate  |                               | at least 90 % able to passthrough a sieve with a mesh of 0,160 mm  |   |  |                  |
|   |                               |  |   | <p>3. In the case of PK fertilizers containing only one of the following types of phosphatic fertilizer: Thomas slag, calcined phosphate, aluminium-calcium phosphate, soft ground rock phosphate, the type designation must be followed by an indication of the phosphate ingredient. The declaration of the solubility of the P<sub>2</sub>O<sub>5</sub> must be given in accordance with the following solubilities:</p> <ul style="list-style-type: none"> <li>- for fertilizers based on Thomas slag: solubility (6a) (France, Italy, Spain, Portugal, Greece), (6b) (Germany, Belgium, Denmark, Ireland, Luxembourg, Netherlands, United Kingdom and Austria);</li> </ul>  |                  |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |                               |                  | Data for identification of the fertilizers;<br>other requirements |   |                  |
|---|-------------------------------|------------------|---|---|------------------|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O |
| 1   | 2                             | 3                | 4   | 5   | 6                |
|   |                               |                  |   | <ul style="list-style-type: none"> <li>- for fertilizers based on calcined phosphate: solubility (5);</li> <li>- for fertilizers based on aluminium-calcium phosphate: solubility (7);</li> <li>- for fertilizers based on soft ground rock phosphate: solubility (8).</li> </ul> |                  |

## C. Inorganic fluid fertilizers

## C.1. Straight fluid fertilizers

| No | Type designation                          | Data on method of production and essential ingredients   | Minimum content of nutrients (percentage by weight) data on the expression of nutrients; other requirements   | Other data or type of designation  | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria   |
|----|---|--|---|--|--|
| 1  | 2   | 3  | 4   | 5  | 6  |
| 1. | Nitrogen fertilizer solution              | Product obtained chemically and by dissolution in water, in a form stable at atmospheric pressure, without addition of organic nutrients of animal or vegetable origin | 15 % N<br>Nitrogen expressed as total nitrogen or, if there is only one form, nitric nitrogen or ammoniacal nitrogen or ureic nitrogen<br>Maximum biuret content: ureic N × 0,026 |  | Total nitrogen and, for any form that amounts to not less than 1 %, nitric nitrogen, ammoniacal nitrogen and/or ureic nitrogen<br>If the biuret content is less than 0,2 %, the words 'low in biuret' may be added |
| 2. | Urea Ammonium nitrate fertilizer solution | Product obtained chemically and by dissolution in water, containing ammonium nitrate and urea  | 26 % N<br>Nitrogen expressed as total nitrogen, where the ureic nitrogen accounts for about half of the nitrogen present<br>Maximum biuret content: 0,5 %                         |  | Total nitrogen<br>Nitric nitrogen, ammoniacal nitrogen and ureic nitrogen<br>If the biuret content is less than 0,2 %, the words 'low in biuret' may be added  |
| 3. | Calcium nitrate solution                  | Product obtained by dissolving calcium nitrate in water  | 8 % N<br>Nitrogen expressed as nitrogen in nitric form with a maximum 1 % nitrogen as ammonia<br>Calcium expressed as water-soluble CaO   | The type designation may be followed, as appropriate, by one of the following indications:<br>- for foliar application;<br>- for making nutrient solutions;<br>- for ferti-irrigation. | Total nitrogen<br>Water-soluble calcium oxide for the uses stipulated in column 5<br>Optionally:<br>- nitrogen in nitric form;<br>- nitrogen as ammonia.   |
| 4. | Magnesium nitrate solution                | Product obtained chemically and by dissolving magnesium nitrate in water   | 6 % N<br>Nitrogen expressed as nitric nitrogen<br>9 % MgO<br>Magnesium expressed as water-soluble magnesium oxide<br>Minimum pH: 4  |  | Nitric nitrogen<br>Water-soluble magnesium oxide   |

Wednesday 10 April 2002

| No | Type designation                                      | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight) data on the expression of nutrients; other requirements   | Other data or type of designation  | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria   |
|----|---|---|---|--|--|
| 1  | 2   | 3   | 4   | 5  | 6  |
| 5. | Calcium nitrate suspension                            | Product obtained by suspension of calcium nitrate in water  | 8 %N<br>Nitrogen expressed as total nitrogen or nitric and ammoniacal nitrogen<br>maximum content of ammoniacal nitrogen: 1,0 %<br>14 % CaO<br>Calcium expressed as water soluble CaO   | The type designation may be followed by one of the following indications:<br>- for foliar application;<br>- for making nutrient solutions and suspensions;<br>- for fertigation. | Total nitrogen<br>Nitric nitrogen<br>Water soluble calcium oxide for the uses stipulated in column 5   |
| 6. | Nitrogen fertilizer solution with urea formaldehyde   | Product obtained chemically or by dissolution in water of urea formaldehyde and a nitrogenous fertilizer from list A-1 in this regulation, excluding products 3(a), 3(b), and 5 | 18 % N expressed as total nitrogen<br>At least 1/3 of the declared total nitrogen content must derive from urea formaldehyde<br>Maximum biuret content: (ureic N + urea formaldehyde N) × 0,026   |  | Total nitrogen<br>For each form amounting to at least 1 %:<br>- Nitric nitrogen;<br>- Ammoniacal nitrogen;<br>- Ureic nitrogen.<br>Nitrogen from urea formaldehyde   |
| 7. | Nitrogen fertilizer suspension with urea formaldehyde | Product obtained chemically or by suspension in water of urea formaldehyde and a nitrogenous fertilizer from list A-1 in this regulation, excluding products 3(a), 3(b), and 5  | 18 % N expressed as total nitrogen<br>At least 1/3 of the declared total nitrogen content must derive from urea formaldehyde of which at least three fifths has to be soluble in hot water<br>Maximum biuret content: (ureic N + urea formaldehyde N) × 0,026 |  | Total nitrogen<br>For each form amounting to at least 1 %:<br>- Nitric nitrogen;<br>- Ammoniacal nitrogen;<br>- Ureic nitrogen.<br>Nitrogen from urea formaldehyde<br>Nitrogen from urea formaldehyde that is soluble in cold water<br>Nitrogen from urea formaldehyde that is only soluble in hot water |

## C.2. Compound fluid fertilizers

|        |   |   |
|--------|---|---|
| C.2.1. | Type designation:   | NPK-fertilizer solution.  |
|        | Data on method of production:   | Product obtained chemically and by dissolution in water, in a form stable at atmospheric pressure, without addition of organic nutrients of animal or vegetable origin.   |
|        | Minimum content of nutrients (percentage by weight) and other requirements: | - Total: 15 %, (N + P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O);<br>- For each of the nutrients: 2 % N, 3 % P <sub>2</sub> O <sub>5</sub> , 3 % K <sub>2</sub> O;<br>- Maximum biuret content: ureic N × 0,026. |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |   |                                | Data for identification of the fertilizers;<br>other requirements  |   |  |
|---|---|--------------------------------|--|---|--|
| N   | P <sub>2</sub> O <sub>5</sub>               | K <sub>2</sub> O               | N  | P <sub>2</sub> O <sub>5</sub>               | K <sub>2</sub> O   |
| 1   | 2   | 3                              | 4  | 5   | 6  |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen                      | Water-soluble P <sub>2</sub> O <sub>5</sub> | Water-soluble K <sub>2</sub> O | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (4) amounts to not less than 1 % by weight, it must be declared<br>(3) If the biuret content is less than 0,2 %, the words 'low in biuret' may be added | Water-soluble P <sub>2</sub> O <sub>5</sub> | (1) Water-soluble potassium oxide<br>(2) The words 'low in chloride' may be used only where the Cl content does not exceed 2 %<br>(3) The chloride content may be declared |

## C.2. Compound fluid fertilizers (continued)

|        |   |   |
|--------|---|---|
| C.2.2. | Type designation:   | NPK-fertilizer suspension.  |
|        | Data on method of production:   | Product in liquid form, in which the nutrients are derived from substances both in suspension in the water and in solution without addition of organic nutrients of animal or vegetable origin.                       |
|        | Minimum content of nutrients (percentage by weight) and other requirements: | - Total: 20 %, (N + P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O);<br>- For each of the nutrients: 3 % N, 4 % P <sub>2</sub> O <sub>5</sub> , 4 % K <sub>2</sub> O;<br>- Maximum biuret content: ureic N × 0,026. |

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |   |                                | Data for identification of the fertilizers;<br>other requirements  |   |  |
|---|---|--------------------------------|--|---|--|
| N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O               | N  | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O   |
| 1   | 2   | 3                              | 4  | 5   | 6  |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen                      | (1) Water-soluble P <sub>2</sub> O <sub>5</sub><br>(2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate<br>(3) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and water | Water-soluble K <sub>2</sub> O | (1) Total nitrogen<br>(2) If any of the forms of nitrogen 2 to 4 amounts to not less than 1 % by weight, it must be declared<br>(3) If the biuret content is less than 0,2 %, the words 'low in biuret' may be added | The fertilizers must not contain Thomas slag, aluminium calcium phosphate, calcined phosphates, partially solubilised phosphates or rock phosphates<br>(1) If the water-soluble P <sub>2</sub> O <sub>5</sub> is less than 2 %, only solubility 2 shall be declared<br>(2) If the water-soluble P <sub>2</sub> O <sub>5</sub> is at least 2 %, solubility 3 and the water-soluble P <sub>2</sub> O <sub>5</sub> content shall be declared | (1) Water-soluble potassium oxide<br>(2) The words 'low in chloride' may be used only where the Cl content does not exceed 2 %<br>(3) The chloride content may be declared |

## C.2. Compound fluid fertilizers (continued)

|        |  |  |
|--------|--|--|
| C.2.3. | Type designation:                                    | NP-fertilizer solution.  |
|        | Data on method of production:                        | Product obtained chemically and by dissolution in water, in a form stable at atmospheric pressure, without addition of organic nutrients of animal or vegetable origin.      |
|        | Minimum content of nutrients (percentage by weight): | - Total: 18 %, (N + P <sub>2</sub> O <sub>5</sub> );<br>- For each of the nutrients: 3 % N, 5 % P <sub>2</sub> O <sub>5</sub> .<br>- Maximum biuret content: ureic N × 0,026 |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |   |                  | Data for identification of the fertilizers;<br>other requirements   |   |                  |
|---|---|------------------|---|---|------------------|
| N   | P <sub>2</sub> O <sub>5</sub>               | K <sub>2</sub> O | N   | P <sub>2</sub> O <sub>5</sub>               | K <sub>2</sub> O |
| 1   | 2   | 3                | 4   | 5   | 6                |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen                      | Water-soluble P <sub>2</sub> O <sub>5</sub> |                  | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (4) amounts to not less than 1 % by weight, it must be declared.<br>(3) If the biuret content is less than 0,2 %, the words 'low in biuret' may be added | Water-soluble P <sub>2</sub> O <sub>5</sub> |                  |

## C.2. Compound fluid fertilizers (continued)

|        |  |  |
|--------|--|--|
| C.2.4. | Type designation:                                    | NP-fertilizer suspension.  |
|        | Data on method of production:                        | Product in liquid form, in which the nutrients are derived from substances both in solution and in suspension in the water, without addition of organic nutrients of animal or vegetable origin. |
|        | Minimum content of nutrients (percentage by weight): | - Total: 18 %, (N + P <sub>2</sub> O <sub>5</sub> );<br>- For each of the nutrients: 3 % N, 5 % P <sub>2</sub> O <sub>5</sub> .<br>- Maximum biuret content: ureic N × 0,026                     |

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |   |                  | Data for identification of the fertilizers;<br>other requirements   |   |                  |
|---|---|------------------|---|---|------------------|
| N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O | N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O |
| 1   | 2   | 3                | 4   | 5   | 6                |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen                      | (1) Water-soluble P <sub>2</sub> O <sub>5</sub><br>(2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate<br>(3) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and water |                  | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (4) amounts to not less than 1 % by weight, it must be declared.<br>(3) If the biuret content is less than 0,2 %, the words 'low in biuret' may be added | (1) If the water-soluble P <sub>2</sub> O <sub>5</sub> is less than 2 % only solubility 2 shall be declared<br>(2) If the water-soluble P <sub>2</sub> O <sub>5</sub> is at least 2 %, solubility 3 will be declared and the water-soluble P <sub>2</sub> O <sub>5</sub> content must be stated.<br>The fertilizers may not contain Thomas slag, aluminium calcium phosphate, calcined phosphates, partially solubilised phosphate or rock phosphates |                  |

## C.2. Compound fluid fertilizers (continued)

|        |  |   |
|--------|--|---|
| C.2.5. | Type designation:                                    | NK-fertilizer solution.   |
|        | Data on method of production:                        | Product obtained chemically and by dissolution in water, in a form stable at atmospheric pressure, without addition of organic nutrients of animal or vegetable origin. |
|        | Minimum content of nutrients (percentage by weight): | - Total: 15 % (N + K <sub>2</sub> O);<br>- For each of the nutrients: 3 % N, 5 % K <sub>2</sub> O.<br>- Maximum biuret content: ureic N × 0,026                         |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |                               |                                | Data for identification of the fertilizers;<br>other requirements  |                               |  |
|---|-------------------------------|--------------------------------|--|-------------------------------|--|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O               | N  | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O   |
| 1   | 2                             | 3                              | 4  | 5                             | 6  |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen                      |                               | Water-soluble K <sub>2</sub> O | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (4) amounts to not less than 1 % by weight, it must be declared<br>(3) If the biuret content is less than 0,2 %, the words 'low in biuret' may be added |                               | (1) Water-soluble potassium oxide<br>(2) The words 'low in chloride' may be used only where the Cl content does not exceed 2 %<br>(3) The chloride content may be declared |

## C.2.6. Compound fluid fertilizers (continued)

|        |  |  |
|--------|--|--|
| C.2.6. | Type designation:                                    | NK-fertilizer suspension.  |
|        | Data on method of production:                        | Product in liquid form, in which the nutrients are derived from substances both in solution and in suspension in the water, without addition of organic nutrients of animal or vegetable origin. |
|        | Minimum content of nutrients (percentage by weight): | - Total: 18 % (N + K <sub>2</sub> O);<br>- For each of the nutrients: 3 % N, 5 % K <sub>2</sub> O.<br>- Maximum biuret content: ureic N × 0,026  |

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |                               |                                | Data for identification of the fertilizers;<br>other requirements  |                               |  |
|---|-------------------------------|--------------------------------|--|-------------------------------|--|
| N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O               | N  | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O   |
| 1   | 2                             | 3                              | 4  | 5                             | 6  |
| (1) Total nitrogen<br>(2) Nitric nitrogen<br>(3) Ammoniacal nitrogen<br>(4) Ureic nitrogen                      |                               | Water-soluble K <sub>2</sub> O | (1) Total nitrogen<br>(2) If any of the forms of nitrogen (2) to (4) amounts to not less than 1 % by weight, it must be declared<br>(3) If the biuret content is less than 0,2 %, the words 'low in biuret' may be added |                               | (1) Water-soluble potassium oxide<br>(2) The words 'low in chloride' may be used only where the Cl content does not exceed 2 %<br>(3) The chloride content may be declared |

## C.2.7. Compound fluid fertilizers (continued)

|        |  |   |
|--------|--|---|
| C.2.7. | Type designation:                                    | PK-fertilizer solution.   |
|        | Data on method of production:                        | Product obtained chemically and by dissolution in water, without addition of organic nutrients of animal or vegetable origin.                               |
|        | Minimum content of nutrients (percentage by weight): | - Total: 18 % (P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O);<br>- For each of the nutrients: 5 % P <sub>2</sub> O <sub>5</sub> , 5 % K <sub>2</sub> O. |

Wednesday 10 April 2002

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |   |                                | Data for identification of the fertilizers;<br>other requirements |   |  |
|---|---|--------------------------------|---|---|--|
| N   | P <sub>2</sub> O <sub>5</sub>               | K <sub>2</sub> O               | N   | P <sub>2</sub> O <sub>5</sub>               | K <sub>2</sub> O   |
| 1   | 2   | 3                              | 4   | 5   | 6  |
|   | Water-soluble P <sub>2</sub> O <sub>5</sub> | Water-soluble K <sub>2</sub> O |   | Water-soluble P <sub>2</sub> O <sub>5</sub> | (1) Water-soluble potassium oxide<br>(2) The words 'low in chloride' may be used only where the Cl content does not exceed 2 %<br>(3) The chloride content may be declared |

## C.2. Compound fluid fertilizers (continued)

|        |  |  |
|--------|--|--|
| C.2.8. | Type designation:                                    | NPK-fertilizer suspension.   |
|        | Data on method of production:                        | Product in liquid form, in which the nutrients are derived from substances both in solution and in suspension in water, without addition of organic nutrients of animal or vegetable origin. |
|        | Minimum content of nutrients (percentage by weight): | - Total: 18 % (P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O);<br>- For each of the nutrients: 5 % P <sub>2</sub> O <sub>5</sub> , 5 % K <sub>2</sub> O.                                  |

| Forms, solubilities and nutrient content to be declared<br>as specified in columns 4, 5 and 6;<br>particle size |   |                                | Data for identification of the fertilizers;<br>other requirements |  |  |
|---|---|--------------------------------|---|--|--|
| N   | P <sub>2</sub> O <sub>5</sub>   | K <sub>2</sub> O               | N   | P <sub>2</sub> O <sub>5</sub>  | K <sub>2</sub> O   |
| 1   | 2   | 3                              | 4   | 5  | 6  |
|   | (1) Water-soluble P <sub>2</sub> O <sub>5</sub><br>(2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate<br>(3) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and water | Water-soluble K <sub>2</sub> O |   | (1) If the water-soluble P <sub>2</sub> O <sub>5</sub> is less than 2 % only solubility 2 will be declared<br>(2) If the water-soluble P <sub>2</sub> O <sub>5</sub> is at least 2 % solubility 3 and the water-soluble P <sub>2</sub> O <sub>5</sub> content shall be declared<br>The fertilizers must not contain Thomas slag, aluminium calcium phosphate, calcined phosphates, partially solubilised phosphates or rock phosphates | (1) Water-soluble potassium oxide<br>(2) The words 'low in chloride' may be used only where the Cl content does not exceed 2 %<br>(3) The chloride content may be declared |

Wednesday 10 April 2002

## D. Inorganic secondary nutrient fertilizers

| No  | Type designation                  | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight) data on the expression of nutrients; other requirements  | Other data or type of designation | Nutrient content to be declared; forms and solubilities of the nutrients; other criteria |
|-----|-----------------------------------|---|--|-----------------------------------|--|
| 1   | 2                                 | 3   | 4  | 5                                 | 6  |
| 1   | Calcium sulphate                  | Product of natural or industrial origin containing calcium sulphate at various degrees of hydration | 25 % CaO<br>35 % SO <sub>3</sub><br>Calcium and sulphur expressed as total CaO + SO <sub>3</sub><br>Fineness of grind:<br>- at least 80 % to pass through a sieve with a 2 mm mesh width,<br>- at least 99 % to pass through a sieve with a 10 mm mesh width | Usual trade names may be added    | Total sulphur trioxide<br>Optional: total CaO  |
| 2   | Calcium chloride solution         | Calcium chloride solution of industrial origin  | 12 % CaO<br>Calcium expressed as water-soluble CaO   |                                   | Calcium oxide<br>Optional: for plant spraying  |
| 3   | Elemental sulphur                 | Comparatively refined natural or industrial product   | 98 % S (245 %: SO <sub>3</sub> )<br>Sulphur expressed as total SO <sub>3</sub>   |                                   | Total sulphur trioxide   |
| 4   | Kieserite                         | Product of mineral origin containing monohydrated magnesium sulphate as main component              | 24 % MgO<br>45 % SO <sub>3</sub><br>Magnesium and sulphur expressed as water-soluble magnesium oxide and sulphur trioxide  | Usual trade names may be added    | Water-soluble magnesium oxide<br>Optional: water-soluble sulphur trioxide                |
| 5   | Magnesium sulphate                | Product containing heptahydrated magnesium sulphate as main component                               | 15 % MgO<br>28 % SO <sub>3</sub><br>Magnesium and sulphur expressed as water-soluble magnesium oxide and sulphur trioxide  | Usual trade names may be added    | Water-soluble magnesium oxide<br>Optional: water-soluble sulphur trioxide                |
| 5.1 | Magnesium sulphate solution       | Product obtained by dissolution in water of magnesium sulphate of industrial origin                 | 5 % MgO<br>10 % SO <sub>3</sub><br>Magnesium and sulphur expressed as water-soluble magnesium oxide and water-soluble sulphuric anhydride  | Usual trade names may be added    | Water-soluble magnesium oxide<br>Optionally: water-soluble sulphuric anhydride           |
| 5.2 | Magnesium hydroxide               | Product obtained chemically and having as its essential ingredient magnesium hydroxide              | 60 % MgO<br>Particle size: at least 99 % able to pass through a sieve with a mesh of 0,063 mm  |                                   | Total magnesium oxide  |
| 5.3 | Suspension of magnesium hydroxide | Product obtained by suspension of type 5.2  | 24 % MgO   |                                   | Total magnesium oxide  |
| 6   | Magnesium chloride solution       | Product obtained by dissolving magnesium chloride of industrial origin                              | 13 % MgO<br>Magnesium expressed as magnesium oxide<br>Maximum calcium content: 3 % CaO   |                                   | Magnesium oxide  |

## E. Inorganic micro-nutrient fertilizers

Explanatory note: The following notes are applicable to the whole of Part E.

Note 1: A chelating agent may be designated by means of its initials as set out in E.3

Note 2: If the product leaves no solid residue after being dissolved in water it may be described as 'for dissolution'.



Wednesday 10 April 2002

Note 3: Where a micro-nutrient is present in a chelated form, the pH range guaranteeing acceptable stability of the chelated fraction shall be stated.

### E.1. Fertilizers containing only one micro-nutrient

#### E.1.1. Boron

| No | Type designation                 | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation                               | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria |
|----|----------------------------------|---|--|---|---|
| 1  | 2                                | 3   | 4  | 5   | 6   |
| 1a | Boric acid                       | Product obtained by the action of an acid on a borate   | 14 % water-soluble B   | The usual trade names may be added.                                 | Water-soluble boron (B)   |
| 1b | Sodium borate                    | Chemically obtained product containing as its essential component a sodium borate                     | 10 % water-soluble B   | The usual trade names may be added.                                 | Water-soluble boron (B)   |
| 1c | Calcium borate                   | Product obtained from Colemanite or pandermite containing as its essential ingredient calcium borates | 7 % total B<br>Particle size: at least 98 % passing through a 0,063 mm sieve                                     | The usual trade names may be added.                                 | Total boron (B)   |
| 1d | Boron ethanol amine              | Product obtained by reacting a boric acid with an ethanol amine                                       | 8 % water-soluble B  |   | Water-soluble boron (B)   |
| 1e | Borated fertilizer in solution   | Product obtained by dissolving types 1a and/or 1b and/or 1d   | 2 % water-soluble B  | The designation must include the names of the constituents present. | Water-soluble boron (B)   |
| 1f | Borated fertilizer in suspension | Product obtained by suspending types 1a and/or 1b and/or 1d in water                                  | 2 % water-soluble B  | The designation must include the names of the constituents present. | Water-soluble boron (B)   |

#### E.1.2. Cobalt

| No | Type designation           | Data on method of production and essential ingredients                                      | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation  | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria |
|----|----------------------------|---|--|--|---|
| 1  | 2                          | 3   | 4  | 5  | 6   |
| 2a | Cobalt salt                | Chemically obtained product containing a mineral salt of cobalt as its essential ingredient | 19 % water-soluble Co  | The designation must include the name of the mineral anion   | Water-soluble cobalt (Co)   |
| 2b | Cobalt chelate             | Water-soluble product obtained by combining cobalt chemically with a chelating agent        | 2 % water-soluble Co, at least 8/10 of the declared value of which has been chelated                             | Name of the chelating agent  | Water-soluble cobalt (Co)<br>Chelated cobalt (Co)   |
| 2c | Cobalt fertilizer solution | Product obtained by dissolving types 2a and/or one of the type 2b in water                  | 2 % water-soluble Co   | The designation must include:<br>(1) the name(s) of the mineral anion(s);<br>(2) the name of any chelating agent if present. | Water-soluble cobalt (Co)<br>Chelated cobalt (Co) if present                                  |

Wednesday 10 April 2002

## E.1.3. Copper

| No | Type designation              | Data on method of production and essential ingredients   | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation   | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria   |
|----|-------------------------------|--|--|---|---|
| 1  | 2                             | 3  | 4  | 5   | 6   |
| 3a | Copper salt                   | Chemically obtained product containing a mineral salt of copper as its essential ingredient  | 20 % water-soluble Cu  | The designation must include the name of the mineral anion  | Water-soluble copper (Cu)   |
| 3b | Copper oxide                  | Chemically obtained product containing copper oxide as its essential ingredient  | 70 % total Cu<br>Particle size: at least 98 % passing through a 0,063 mm sieve                                   |   | Total copper (Cu)   |
| 3c | Copper hydroxide              | Chemically obtained product containing copper hydroxide as its essential ingredient  | 45 % total Cu<br>Particle size: at least 98 % passing through a 0,063 mm sieve                                   |   | Total copper (Cu)   |
| 3d | Copper chelate                | Water-soluble product obtained by combining copper chemically with a chelating agent   | 9 % water-soluble Cu, at least 8/10 of the declared value of which has been chelated                             | Name of the chelating agent   | Water-soluble copper (Cu)<br>Chelated copper (Cu)   |
| 3e | Copper-based fertilizer       | Product obtained by mixing types 3a and/or 3b and/or 3c and/or a single one of type 3d and, if required, filler that is neither nutrient nor toxic | 5 % total Cu   | The designation must include:<br>(1) the name(s) of the copper components;<br>(2) the name of any chelating agent if present. | Total copper (Cu)<br>Water-soluble copper (Cu) if this accounts for at least 1/4 of the total copper<br>Chelated copper (Cu) if present |
| 3f | Copper fertilizer solution    | Product obtained by dissolving types 3a and/or one of the type 3d in water   | 3 % water-soluble Cu   | The designation must include:<br>(1) the name(s) of the mineral anion(s);<br>(2) the name of any chelating agent if present.  | Water-soluble copper (Cu)<br>Chelated copper (Cu) if present  |
| 3g | Copper oxychloride            | Chemically obtained product containing copper oxychloride $[\text{Cu}_2\text{Cl}(\text{OH})_3]$ as an essential ingredient                         | 50 % total Cu<br>Particle size: at least 98 % passing through a 0,063 mm sieve                                   |   | Total copper (Cu)   |
| 3h | Copper oxychloride suspension | Product obtained by suspension of type 3g  | 17 % total Cu  |   | Total copper (Cu)   |

## E.1.4 Iron

| No | Type designation | Data on method of production and essential ingredients                                 | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation                      | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria |
|----|------------------|--|--|--|---|
| 1  | 2                | 3  | 4  | 5  | 6   |
| 4a | Iron salt        | Chemically obtained product containing a mineral iron salt as its essential ingredient | 12 % water-soluble Fe  | The designation must include the name of the mineral anion | Water-soluble iron (Fe)   |
| 4b | Iron chelate     | Water-soluble product obtained by combining iron chemically with a chelating agent     | 5 % water-soluble Fe, at least 8/10 of the declared value of which has been <b>chelated</b>                      | Name of the chelating agent                                | Water-soluble iron (Fe)<br>Chelated iron (Fe)   |

Wednesday 10 April 2002

| No | Type designation         | Data on method of production and essential ingredients                     | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation  | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria |
|----|--------------------------|--|--|--|---|
| 1  | 2                        | 3  | 4  | 5  | 6   |
| 4c | Iron fertilizer solution | Product obtained by dissolving types 4a and/or one of the type 4b in water | 2 % water-soluble Fe   | The designation must include:<br>(1) the name(s) of the mineral anion(s);<br>(2) the name of any chelating agent if present. | Water-soluble iron (Fe)<br>Chelated iron (Fe) if present                                      |

## E.1.5. Manganese

| No | Type designation                    | Data on method of production and essential ingredients  | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation  | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria                 |
|----|-------------------------------------|---|--|--|---|
| 1  | 2                                   | 3   | 4  | 5  | 6   |
| 5a | Manganese salt                      | Chemically obtained product containing a mineral manganese salt (Mn II) as its essential ingredient | 17 % water-soluble Mn  | The designation must include the name of the combined anion.   | Water-soluble manganese (Mn)  |
| 5b | Manganese chelate                   | Water-soluble product obtained by combining manganese chemically with a chelating agent             | 5 % water-soluble Mn, at least 8/10 of the declared value of which has been chelated                             | Name of the chelating agent  | Water-soluble manganese (Mn)<br>Chelated manganese (Mn)   |
| 5c | Manganese oxide                     | Chemically obtained product containing manganese oxides as essential ingredients                    | 40 % total Mn<br>Particle size: at least 80 % passing through a 0,063 mm sieve                                   |  | Total manganese (Mn)  |
| 5d | Manganese-based fertilizer          | Product obtained by mixing types 5a and 5c  | 17 % total Mn  | The designation must include the name of the manganese components  | Total manganese (Mn)<br>Water-soluble manganese (Mn) if this accounts for at least 1/4 of the total manganese |
| 5e | Manganese-based fertilizer solution | Product obtained by dissolving types 5a and/or one of the type 5b in water                          | 3 % water-soluble Mn   | The designation must include:<br>(1) the name(s) of the mineral anion(s);<br>(2) the name of any chelating agent if present. | Water-soluble manganese (Mn)<br>Chelated manganese (Mn) if present  |

## E.1.6. Molybdenum

| No | Type designation | Data on method of production and essential ingredients                              | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria |
|----|------------------|---|--|---------------------------------------|---|
| 1  | 2                | 3   | 4  | 5                                     | 6   |
| 6a | Sodium molybdate | Chemically obtained product containing sodium molybdate as its essential ingredient | 35 % water-soluble Mo  |                                       | Water-soluble molybdenum (Mo)   |

**Wednesday 10 April 2002**

| No | Type designation                     | Data on method of production and essential ingredients                                 | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation                                   | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria |
|----|--------------------------------------|--|--|---|---|
| 1  | 2                                    | 3  | 4  | 5   | 6   |
| 6b | Ammonium molybdate                   | Chemically obtained product containing ammonium molybdate as its essential ingredients | 50 % water-soluble Mo  |   | Water-soluble molybdenum (Mo)   |
| 6c | Molybdenum-based fertilizer          | Product obtained by mixing types 6a and 6b   | 35 % water-soluble Mo  | The designation must include the names of the molybdenum components     | Water-soluble molybdenum (Mo)   |
| 6d | Molybdenum-based fertilizer solution | Product obtained by dissolving types 6a and/or one of the type 6b in water             | 3 % water-soluble Mo   | The designation must include the name(s) of the molybdenum component(s) | Water-soluble molybdenum (Mo)   |

**E.1.7. Zinc**

| No | Type designation               | Data on method of production and essential ingredients                                    | Minimum content of nutrients (percentage by weight)<br>Data on the expression of nutrients<br>Other requirements | Other data on the type of designation  | Nutrient content to be declared<br>Forms and solubilities of the nutrients;<br>Other criteria       |
|----|--------------------------------|---|--|--|---|
| 1  | 2                              | 3   | 4  | 5  | 6   |
| 7a | Zinc salt                      | Chemically obtained product and having as its essential ingredient a mineral salt of zinc | 15 % water-soluble Zn  | The designation must include the name of the mineral anion   | Water-soluble zinc (Zn)   |
| 7b | Zinc chelate                   | Water-soluble product obtained by combining zinc chemically with a chelating agent        | 5 % water-soluble Zn, at least 8/10 of the declared content of which has been chelated                           | Name of the chelating agent  | Water-soluble zinc (Zn)<br>Chelated zinc (Zn)   |
| 7c | Zinc oxide                     | Chemically obtained product and having as its essential ingredient zinc oxide             | 70 % total Zn<br>Particle size: at least 80 % passing through a 0,063 mm sieve                                   |  | Total zinc (Zn)   |
| 7d | Zinc-based fertilizer          | Product obtained by mixing types 7a and 7c  | 30 % total Zn  | The designation must include the name of the zinc components present   | Total zinc (Zn)<br>Water-soluble zinc (Zn) if this accounts for at least 1/4 of the total zinc (Zn) |
| 7e | Zinc-based fertilizer solution | Product obtained by dissolving types 7a and/or one of type 7b in water                    | 3 % water-soluble Zn   | The designation must include:<br>(1) the name(s) of the mineral anion(s);<br>(2) the name of any chelating agent if present. | Water-soluble zinc (Zn)<br>Chelated zinc (Zn) if present  |

Wednesday 10 April 2002

## E.2. Minimum micro-nutrient content, percentage weight of fertilizer

## E.2.1. Solid or fluid mixtures of micro-nutrient

|                       | Where the micro-nutrient is present in a form that is |                       |
|-----------------------|---|-----------------------|
|                       | exclusively mineral                                   | chelated or complexed |
| For a micro-nutrient: |   |                       |
| Boron (B)             | 0,2   | 0,2                   |
| Cobalt (Co)           | 0,02  | 0,02                  |
| Copper (Cu)           | 0,5   | 0,1                   |
| Iron (Fe)             | 2,0   | 0,3                   |
| Manganese (Mn)        | 0,5   | 0,1                   |
| Molybdenum (Mo)       | 0,02  | -                     |
| Zinc (Zn)             | 0,5   | 0,1                   |

Minimum total of micro-nutrient in a solid mixture: 5 % by mass of the fertilizer.

Minimum total of micro-nutrient in a fluid mixture: 2 % by mass of the fertilizer.

## E.2.2. EEC fertilizers containing primary and/or secondary nutrient with micro-nutrient applied to the soil

|                 | For crops<br>or grassland | For horticultural use |
|-----------------|---------------------------|-----------------------|
| Boron (B)       | 0,01                      | 0,01                  |
| Cobalt (Co)     | 0,002                     | -                     |
| Copper (Cu)     | 0,01                      | 0,002                 |
| Iron (Fe)       | 0,5                       | 0,02                  |
| Manganese (Mn)  | 0,1                       | 0,01                  |
| Molybdenum (Mo) | 0,001                     | 0,001                 |
| Zinc (Zn)       | 0,01                      | 0,002                 |

## E.2.3. EEC fertilizers containing primary and/or secondary nutrient with micro-nutrients for leaf sprays

|                 |       |
|-----------------|-------|
| Boron (B)       | 0,010 |
| Cobalt (Co)     | 0,002 |
| Copper (Cu)     | 0,002 |
| Iron (Fe)       | 0,020 |
| Manganese (Mn)  | 0,010 |
| Molybdenum (Mo) | 0,001 |
| Zinc (Zn)       | 0,002 |

## E.3. List of authorised organic chelating and complexing agents for micro-nutrients

## Authorised products

## E.3.1. Chelating agents

Sodium, potassium or ammonium acid or salts of:

|  |        |                         |
|--|--------|-------------------------|
| ethylene diamine tetraacetic acid:                           | EDTA   | $C_{10}H_{16}O_8N_2$    |
| diethylene triamine pentaacetic acid:                        | DTPA   | $C_{14}H_{23}O_{10}N_3$ |
| ethylene diamine-di (O-hydroxyphenyl acetic) acid:           | EDDHA  | $C_{18}H_{20}O_6N_2$    |
| hydroxy-2ethyl ethylene diamine triacetic acid:              | HEEDTA | $C_{10}H_{18}O_7N_2$    |
| ethyldiamine-di (O-hydroxy P-methyl phenyl) acetic acid:     | EDDHMA | $C_{20}H_{24}O_6N_2$    |
| ethylene diamine-di (5-carboxy-2-hydroxyphenyl) acetic acid: | EDDCHA | $C_{20}H_{20}O_{10}N_2$ |

## E.3.2. Complexing agents

List to be drawn up