

- (a) the minimum content of each element in column 1 of Table 8 is that specified in columns 2, 3 and 4 of Table 8;
- (b) the minimum total micro-element content:
 - (i) is 50 g per kg for powders/granules;
 - (ii) is 20 g per kg for liquid mixtures.

(2) The total elements and water soluble content of each element must be provided in terms of Regulation 9(3)(c) as well as instructions for use as approved by the Registrar.

Addition of macro- and micro-elements

34. (1) Macro- and micro-elements may be added to chemically composed, mixed or liquid fertilizers provided that:

- (a) such macro- and micro-elements are registered in terms of the Regulations;
 - (b) such additions must be approved by the Registrar; and
 - (c) the added macro- and micro-elements must be indicated in terms of Regulation 9(3)(c).
- (2) If micro-elements are added to inorganic fertilizers they must:
- (a) be registered in terms of the regulations;
 - (b) be supported by written proof that justifies such addition;
 - (c) not be added in lesser amounts than in Table 9;
 - (d) be printed on the label and invoice in terms of Regulation 9(3)(c); and
 - (e) be accompanied by instructions for approval by the Registrar on the label.

Compost

35. (1) A compost as defined in Regulation 1, whether in bulk or bagged, may only be sold if registered and it meets the following requirements:

- (a) it must be fine enough for one hundred per cent thereof to pass through a 12 mm standard sieve;
 - (b) the ash content thereof does not exceed 670 g/kg on a dry matter basis;
 - (f) the moisture content does not exceed 400 g/kg;
 - (g) it meets the requirements of Table 12 relating to Potentially Harmful Elements;
 - (h) it does not contain any visibly undecomposed organic or other foreign material; and
 - (i) at least 80% of seeds that are planted under controlled conditions germinate normally and exhibit normal growth when the compost is added to a growth medium as prescribed by the holder of the registration or manufacturer of such fertilizer.
- (2) No macro- or micro-element may be added to compost without the written approval of the Registrar.

Municipal compost

36. (1) A municipal compost as defined in Regulation 1, that consists of urban waste may only be sold if registered and it meets the following requirements:

(a) the requirements set out in Regulation 35 (1) (a) to (f); and

(2) No macro- or micro-element may be added to municipal compost without the written approval of the Registrar.

Sewage sludge

37. (1) A sewage sludge as defined in Regulation 1 may only be sold if registered and it meets the following requirements:

(a) Guidelines for the utilisation and disposal of wastewater sludge: volume 2, requirements for the agricultural use of sludge of the Department of Water and Sanitation;

(b) the requirements for inorganic content as given in Table 12;.

(c) the requirements of Regulation 35 (1) (a) to (f); and

(d) it must be certified to comply with the following quality requirements:

(i) Stabilised – should not cause odour nuisances or fly-breeding

(ii) Contains no viable *Ascaris ova*

(iii) Contains no *Salmonella* organisms

(iv) Contains a maximum 1000 Faecal coliform per 10 g dry sludge immediately after treatment (disinfection or sterilisation)

(2) No macro- or micro-elements may be added to the sewage sludge without the written approval of the Registrar.

Mixture of municipal compost and sewage sludge

38. (1) A compost that consists of a mixture of municipal compost and sewage sludge may only be sold if registered and it meets the following requirements:

(a) the Department of Water and Sanitation requirements for sewage sludge;

(b) the requirements for total inorganic content as given in Table 12;.

(c) the requirements of Regulation 35 (1) (a) to (f); and

(d) it must be certified to comply with the following quality requirements;

(i) Stabilised- should not cause odour nuisances of fly-breeding;

(ii) Contains no viable *Ascaris ova*;

(iii) Maximum 0 *salmonella* organisms per 10g dry sludge; and

(iv) Maximum 1000 *Faecal coliform* per 10g dry sludge immediately after treatment (disinfection/sterilisation)

(2) No macro- or micro-elements may be added to a mixture of municipal compost and sewage sludge without the written approval of the Registrar.

Composted poultry manure, kraal manure and other manures

39. (1) An organic fertilizer that consists of composted poultry manure, kraal manure or any other excretions of animals, with the exception of bat manure and guano, may only be sold if registered and it meets the requirements of Regulation 35 (1) (a) to (f); on condition that:

- (a) the ash content does not exceed 670 g/kg on a dry matter basis; and
- (b) no macro- or micro-elements may be added without the written approval of the Registrar.

Bat manure

40. (1) An organic fertilizer that consists of bat manure may only be sold if registered and it meets the following requirements:

- (a) the minimum total nitrogen content is 20 g/kg;
 - (b) the minimum phosphorus content soluble in 2% citric acid is 18 g/kg;
 - (c) the total content of nitrogen and phosphorus is a minimum of 60 g/kg; and
 - (d) it is sterilised by any method approved in writing by the Registrar that eliminates organisms that could be harmful to man, animal or the environment.
- (2) No macro- or micro-elements may be added without the written approval of the Registrar.

Guano, carcass, hoof, horn and bone meal

41. (1) A product specified in column 1 of Table 13 may only be sold if registered and it meets the following requirements:

- (a) the total nitrogen content is as specified in column 2 of Table 13;
- (b) the sum total of the nitrogen content, phosphorus content and potassium content is as given in column 3 of Table 13; and
- (c) it furthermore meets the requirements given in column 4 of Table 13.

(2) The details specified in column 5 of Table 13 must be provided in terms of Regulation 9(4)(a) in respect of the fertilizers.

(3) The fertilizers mentioned in Regulation 43 with the exception of guano must furthermore meet the requirement in sub-regulation (1) (c) above.

(4) No macro- or micro-elements may be added to a fertilizer without the written approval of the Registrar.

Organic or enriched organic fertilizer mixtures

42. (1) An enriched organic fertilizer mixture as defined in Regulation 1, may only be sold if registered under a name approved by the Registrar, and it meets the following requirements:

- (a) the nitrogen content is as specified in column 4 of Table 14 and conforms to clause 30 (l) (d)
- (b) the sum of the nitrogen, total phosphorus and potassium content is as specified in column 3 of Table 14.
- (c) product must comply must comply with explosives act (Act 26 of 1956)

(2) An organic fertilizer mixture as described in Regulation 1 may only be sold if approved and registered and it meets the following requirements:

- (a) the sum of the nitrogen, total phosphorus and potassium content is as specified in column 3 of Table 14; and
- (b) other requirements of Table 14.

Micro-elements in organic fertilizers and enriched organic fertilizer mixtures

43. (1) Where micro-elements are added to an organic fertilizer mixture or enriched organic fertilizer mixture:

- (a) such micro-element must be registered in terms of the Act;
- (b) written proof must be supplied that justifies such addition;
- (c) it must not be in lesser amounts than stipulated in Table 9;
- (d) it must be indicated on the label or invoice in terms of Regulation 9(3)(c); and
- (e) instruction for use approved by the Registrar must be printed on the label or invoice if it is a home or garden fertilizer.

(2) If the natural micro-element content of an organic fertilizer or an enriched organic fertilizer mixture is printed on the label as intended in Regulation 9(3)(c):

- (a) it must not be for amounts lower than specified in Table 9; and
- (d) the micro-element content must meet the solubility criteria specified in Table 7.

Liming materials

44. (1) A liming material may only be sold if registered as a fertilizer and it meets the following requirements:

- (a) the requirements set out in Table 15.
- (b) the fineness thereof with the exception of shell lime is as follows:
 - (i) that at least 50% thereof passes through a 250 micron sieve (0,25 mm); and
 - (ii) that at least 100% thereof passes through a 1700 micron sieve (1,7 mm); provided that a finer grade may be registered.
- (e) the fineness of shell lime is as follows:
 - (i) that at least 60% thereof passes through a 500 micron sieve (0,5 mm); and
 - (ii) that at least 100% thereof passes through a 1700 micron sieve (1,7 mm); provided that a finer grade may be registered.
- (c) The maximum moisture content thereof on an oven dry basis at 105°C is 150 g/kg and the maximum moisture content of a liming material referred to in subparagraph (2) does not exceed 200 g/kg.

(2) A liming material may be registered as microfine if at least 95% thereof passes through a 250 micron sieve and at least 80% thereof passes through a 106 micron sieve.

(3) The details in columns 1 to 8 of Table 15 must be given in terms of Regulation 9 in respect of the liming materials, as well as the following information:

- (a) CCE values, according to the strong acid and Relative Resin Suspension methods;
- (b) Moisture content; and
- (c) Sieve test.

Custom mixes

45. (1) A person managing the undertaking where custom mixes are manufactured for specific clients, shall, in respect of each batch or series of the different custom mixes, manufactured, controlled, packed, marked or labelled thereof, keep comprehensive records of:—

- (a) the results of quality checks made on the registered raw materials used as ingredients in the manufacture of the custom mix comprising each such custom mix;
- (b) each date on which a quantity of the custom mix was sold, the names and addresses of the purchaser to whom each such quantity was sold, and the quantity thereof which was sold to each such person;
- (c) the name and address of the person on whose behalf the custom mix was prepared;
- (f) the composition/nutrients, as well as the purpose for which it is needed;
- (g) registration details of all raw materials;
- (h) registration details of all the sources of the raw materials
- (i) consent letter (s) from the supplier of the all the raw materials
- (g) the quantity mixed; and
- (h) the signature of and date on which the qualified person on whose behalf the custom mix was prepared, submitted a request.

(2) Where the custom mixes are not sold in containers, the label or invoice shall contain the following information:

- (a) name and address of the person who placed the order;
- (b) the words "not for general public sale";
- (c) the name of the product or for which purpose the product is intended;
- (d) the plant nutrients present in such fertilizer
- (e) the mass of the product; and
- (f) the name and address of the manufacturer.

(3) A person manufacturing a custom mix shall keep a reference sample for at least six months after the date of the delivery.

(4) If for any reason a custom mix must be stored it must be clearly labelled (clearly legible) with the following information:-

- (a) Name of client;
- (b) Order or invoice number;

- (c) Date of manufacture;
- (d) Product name and /or composition;
- (e) Mass or volume produced.

Permissible deviations in components / nutrients / micro-element contents

46. (1) Notwithstanding anything to the contrary contained in these regulations, a fertilizer shall not be deemed to deviate in its registered components/ nutrients or micro-elements contents as long as it:
- (a) is within the limits set out in Table 16 and does not deviate more than 1.4% in absolute terms of its registered value for the total nutrients (fertilizer mixture);
 - (b) is within the limits set out in Table 17 (chemically compounded fertilizer);
 - (c) is within the limits set out in Table 18 (fertilizer mixture or chemically compounded fertilizer with micro elements); and
 - (d) does not deviate by more than 7% on a dry mass basis (liming material).

Potentially harmful elements

47. (1) **All fertilizers** must meet the requirements as specified in Table 12. The levels of potentially harmful elements may not exceed the limit indicted in Table 12.
- (2) Each application must be accompanied by a certificate of analysis on the potentially harmful elements contained in such fertilizer.
- (3) The Registrar may request the applicant to conduct further analysis of potentially harmful elements at any time after the registration of any such fertilizers.

ANNEXURE A


**agriculture,
forestry & fisheries**

Department:
Agriculture, forestry & fisheries
REPUBLIC OF SOUTH AFRICA

Republic of South Africa
Registrar: Act 36/1947
Private Bag X343
0001 Pretoria

**FERTILIZERS, FARM FEEDS, AGRICULTURAL REMEDIES AND STOCK REMEDIES ACT, 1947
(ACT No. 36 OF 1947), AS AMENDED**

APPLICATION FOR THE REGISTRATION OF A FERTILIZER

INFORMATION FOR APPLICANTS

1. The application form must be duly completed in all respects. Where applicable, the requested information can be submitted as separate numbered attachments.
2. The application and draft label must be submitted in duplicate with an explanatory covering letter.
3. The application must be submitted to the Registrar: Act 36 of 1947, Private Bag X343, Pretoria, 0001.
4. Every application must be accompanied by the prescribed registration fee.
5. For further information visit our website at www.daff.gov.za

Indicate as appropriate:

| | | |
|--|------|-----|
| New Registration: | | |
| Minor Registration: | | |
| Amendments to an existing registration: | | |
| Other: - | | |
| Will product be marketed/distributed under own label: | YES: | NO: |
| If the answer is no to the above, please indicate the name of the marketer/ distributor: | | |

| 1. APPLICANT | | |
|---|----------------------|---|
| Identification: | Details of applicant | Details of distributor/agent in country: (List of additional distributors/agents can be attached). |
| Company name and company registration number: | | |
| Physical address: | | |
| Postal address: (and postal code) | | |
| Telephone: (and area code) | | |
| Fax: (and area code) | | |
| E-mail: | | |

| 2. INDICATE THE FOLLOWING | | | | | | |
|---|--------------|-------------|---------|--------------|----------------|-------|
| Is the applicant the | Importer | | | | | |
| | Manufacturer | | | | | |
| | Blender | | | | | |
| | Seller | | | | | |
| 3. DETAILS OF THE MANUFACTURE | | | | | | |
| 3.1. Name of manufacturer (s) if more than one, provide an Annexure | | | | | | |
| 3.2. Postal address | | | | | | |
| 3.3. Physical address (street address) | | | | | | |
| 3.4. Telephone Number: | | | | | | |
| 3.5. Fax Number | | | | | | |
| 3.6. E-mail address | | | | | | |
| 3.7. Establishment and sterilizing plant (where applicable). | | | | | | |
| Registration number (where applicable) | | | | | | |
| 3.8. Initials and Surname(s) of person(s) responsible for formulation | | | | | | |
| 3.9. Qualifications | | | | | | |
| 4. PARTICULARS OF PRODUCT | | | | | | |
| 4.1. Trade mark (acknowledged or registered in terms of Trade Marks Act (Act 62 of 1963) (if any) | | | | | | |
| 4.2. Trade name: | | | | | | |
| 4.3. Fertilizer group | Group 1 | | Group 2 | | Group 3 | |
| | | | | | | |
| 4.4. How will the product be sold | Bulk | | | Containers | | |
| | | | | | | |
| 4.5. Type and size of container | Polyprop bag | Plastic bag | Drum | Glass bottle | Plastic bottle | Other |

| 10. DECLARATION BY APPLICANT OR THE DULY APPOINTED REPRESENTATIVE | |
|---|--|
| Trade name of product: | |
| <p>For and on behalf of:</p> <p>I hereby certify that the information furnished in this application and data provided in support is to the best of my knowledge true, correct, complete and complies with the requirements of Act No. 36 of 1947; acknowledge my responsibilities in terms of the Act; and grant permission to the Registrar of Act No.36/1947 to cancel this registration in terms of <i>Section 4</i> of the Act should it be established that the information supplied in this application and with this application is not true and does not comply with the requirements of the Act.</p> | |
| <p>.....</p> <p>Name in full (printed)</p> | <p>.....</p> <p>Signature</p> |
| <p>.....</p> <p>Date</p> | <p>.....</p> <p>Official Title</p> |
| <p>Official Stamp of Applicant / Company</p> | <p>FOR OFFICIAL USE</p> <p>Registration is: Recommended <input type="checkbox"/> Not Recommended <input type="checkbox"/></p> <p>Technical Adviser:</p> |
| | <p>Date</p> |

ANNEXURE B

TABLE 1

NITROGEN FERTILIZERS

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|-------------------|--|---|---|--|---|
| | NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS | |
| 1 | Ammonium sulphate | Chemically derived product that contains ammonium sulphate as essential component | 200 g/kg N Nitrogen present as ammonium nitrogen | 1. Total N 2. Ammonium - N 3. Nitrate - N 4. Amine - N 5. Cyanamide - N 6. Ureaformaldehyde 6a. Luke warm water-soluble N 6b. Hot water-soluble- N 7. Total calcium 8. Total magnesium 9. Sulphites | Solubility (1); Solubility (2) optional; Sulphur optional, as long as at least 10 g/kg | |
| 2 | Sodium nitrate | Chemically derived product that contains sodium nitrate as essential component | 150 g/kg N Nitrogen present as nitrate nitrogen | | Solubility (1); Solubility (3) optional | |
| 3 | Calcium nitrate | Chemically derived product that contains calcium nitrate as essential component and possibly ammonium nitrate | 119 g/kg N (solid) 170 g/kg Ca (solid) 80 g/kg N (liquid) 110 g/kg Ca (liquid) | | Solubility (1) and (7); Solubility (3) optional | |
| 4 | Calcium cyanamide | Chemically derived product that contains calcium cyanamide as essential component, calcium oxide and possibly small amounts of ammonium salts and urea | 180 g/kg N (dry or liquid) Nitrogen present as total nitrogen and at least 75% to be declared bound in the form of cyanamide | | Solubility (1); Solubility (5) optional | |
| 5 | Urea | Chemically derived product that contains carbonyl diamide (carbamide) as essential component | 450 g/kg N (solid) Total amine nitrogen (biuret included) | Same as for ammonium sulphate 1 - 8 | Solubility (1) | |
| 6 | Low biurette urea | Chemically derived product that contains carbonyl diamide | 450 g/kg N (solid) Total amine nitrogen (biuret) | | Solubility (1) | |

| 1 | NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS |
|----|----------------------------|---|--|---|--|
| 2 | | 3 | 4 | 5 | 6 |
| 7 | Limestone ammonium nitrate | (carbamide) as essential component Intimately mixed product of powdered lime and ammonium nitrate granules or prill. | included) Biuret content lower than 0.5% 270 g/kg N The minimum content of calcitic or dolomitic lime shall be 150 g/kg with a purity level of at least 900 g/kg. Must meet the requirements of the Explosives Act, Act 26 of 1956 and the regulations thereof. | | Solubility (1); Solubility (2) and (3) optional; Sulphur content optional, provided at least 10 g/kg |
| 8 | Ammonium sulphate nitrate | Mixture of ammonium nitrate and ammonium sulphate | 250 g/kg N (solid) 180 g/kg N (liquid) 50 g/kg nitrate-N (solid) 40 g/kg nitrate-N (liquid) Must meet the requirements of the Explosives Act, Act 26 of 1956 and the regulations thereof. | | Solubility (1); Solubility (2) and (3) optional; Sulphur content optional provided at least 10 g/kg |
| 9 | Aqua ammonia | Mixed product of water and ammonia | 150 g/kg N | Same as for ammonium sulphate 1 - 8 | Solubility (1) |
| 10 | Urea formaldehyde | Reaction production of urea and formaldehyde | 320 g/kg N 10 - 13% soluble in luke warm water (25°C) 15 - 16,5% insoluble in luke warm water (25°C) but soluble in hot water 8,5 - 13% insoluble in boiling water | | Solubility (1) 6(a) and 6(b) |
| 11 | Ammonium chloride | Chemically derived product that contains ammonium chloride as essential component | 240 g/kg N | | Solubility (1); Solubility (2) optional |
| 12 | Ammonium nitrate solution | Aqueous solution of ammonium nitrate | 100 g/kg N Must meet the requirements of the Explosives Act, Act 26 of 1956 and the regulations thereof. | | Solubility (1) Solubility (2) and (3) optional |
| 13 | Calcium ammonium nitrate | Mixed product of ammonium and calcium nitrate | 100 g/kg N (solid) 80 g/kg N (liquid) | Same as for ammonium sulphate 1 - 8 | Solubility (1) and (7); Solubility (2) and (3) |

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|--|---|---|--|---|
| NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS | |
| 14 | Urea ammonium nitrate (UAN) solution | Aqueous solution that contains ammonium nitrate and urea as essential components | 210 g/kg N Must meet the requirements of the Explosives Act, Act 26 of 1956 and the regulations thereof. | | Solubility (1); Solubility (2), (3) and (4) optional |
| 15 | Magnesium nitrate | Chemically derived product with magnesium nitrate as essential component | 100 g/kg N (solid) 80 g/kg Mg (solid) 60 g/kg N (liquid) 50 g/kg Mg (liquid) | | Solubility (1) and (8); Solubility (3) optional |
| 16 | Magnesium ammonium nitrate | Chemically derived product with ammonium nitrate and magnesium containing salts (dolomite, magnesium carbonate and/or magnesium sulphate as essential components) | 190 g/kg N 60 g/kg NO ₃ - N 60 g/kg NH ₄ + N 30 g/kg Mg | 1. Total N 2. Ammonium-N 3. Nitrate-N 4. Amine-N 5. Cyanamide-N 6. Urea formaldehyde 6a. Luke warm water-soluble-N | Solubility (1); Solubility (2), (3) and (8) optional |
| 17 | Anhydrous ammonia | Chemically derived product with NH ₃ as essential component | 800 g/kg N | 6b. Hot water-soluble-N 7. Total calcium 8. Total magnesium | Solubility (1) |
| 18 | Urea formaldehyde reaction products: MU – methyleneurea MDU – Methylenediurea DMTU – dimethylene-triurea | Reaction of: Urea and formaldehyde Urea and monomethylolurea Methylenediurea and monomethylolurea | 38% N min, Al < 40 Of the N present: 10 - 13% is cold water-soluble nitrogen (CWSN) - soluble in 25°C, the N is mineralised in about 1 - 4 weeks, 15 - 17% is cold water insoluble nitrogen (VWIN) or hot water-soluble nitrogen (HWSN) at 25°C, the N is mineralised in about 1 - 16 weeks, 7 - 13% is hot water insoluble | | |

| 1 | NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS |
|----|---|--|---|--|---|
| 2 | | 3 | 4 | 5 | 6 |
| 19 | Urea formaldehyde condensates: CDU - Crotonylidendiurea IBDU - isobutylidenediurea | Urea and crotonaldehyde Urea and isobutyraldehyde | nitrogen (HWIN) at 98 -100°C, the N is mineralised in about 1 - 30 weeks 32% N, AI = 99.8 30-31% N, AI = 99 | | |
| 20 | Soluble N sources that gradually decompose: GUAN - guanylurea GUP - guanylurea phosphate GUS - guanylurea sulphate | Acidulation of Calcium Cyanamide | 27.8% N 37% N | | |
| 21 | Sparingly soluble minerals: Magnesium ammonium phosphate | | 57 - 90 g/kg N 126 - 196 g/kg P | Solubility approx. 0.014 g/100 ml at 25°C 1 - 2% water-soluble nitrogen | |

Products 1 - 7, 9 - 12, 15 - 17, 18 - 21 are chemically derived products.
Products 8, 13 and 14 are mixtures.

TABLE 2

PHOSPHORUS FERTILIZERS

| 1 | NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS |
|---|---|---|---|---|--|
| | 2 | 3 | 4 | 5 | 6 |
| 1 | Basic slag | Product derived from iron foundry through treatment of phosphorus melt. Contains calcium silica phosphate as essential component | 40 g/kg P, soluble in 2% citric acid. Particle size: At least 75% capable of passing through a sieve with a mesh of 150 micron; at least 98% capable of passing through a sieve with a mesh of 630 micron. | 1. Water-soluble P 2. P soluble in mineral acid (HNO ₃ + HC1) 3. P soluble in 2% citric acid 4. Total calcium 5. Total sulphur | Solubility (3); Solubility (2) optional |
| 2 | Superphosphate | Product derived from the reaction of milled mineral phosphate with sulphuric acid and/or phosphoric acid, and contains mono calcium phosphate as an essential component together with calcium sulphate | 80 g/kg P, soluble in 2% citric acid, of which at least 80% must be water-soluble. | | Solubility (3); Solubility (1), (4) and (5) Optional provided the calcium and sulphur contents are at least 10 g/kg |
| 3 | Partially dissolved milled sedimentary rock phosphate | Product derived from the partial dissolution of milled sedimentary rock with sulphuric acid, phosphoric acid or nitric acid and contains mono and tri calcium phosphates and calcium sulphate as essential components | 80 g/kg P, soluble in mineral acids, of which at least 25% must be water-soluble. Particle size of phosphate rock: <ul style="list-style-type: none"> • At least 85% capable of passing through a sieve with a mesh of 150 micron; • At least 98% capable of passing through a sieve with a mesh of 630 micron. | | Solubility (1) and (2) Solubility (3), (4) and (5) optional provided the calcium and sulphur contents are at least 10 g/kg |
| 4 | Dicalcium phosphate | Product derived from the precipitation of soluble phosphoric acid with mineral phosphates or bones and contains dicalcium phosphate hydrate as essential | 160 g/kg P, soluble in 2% citric acid. Particle size: At least 80% capable of passing through a sieve with a mesh of 150 micron. | | Solubility (3); Solubility (2) and (4) optional provided the calcium content is at least 10 g/kg |

| NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS |
|--|--|--|---|--|
| 1 | 2 | 3 | 4 | 5 |
| | | | | 6 |
| 5 Super and sedimentary milled phosphate rock | component. Shall consist of a mixture of superphosphate powder and sedimentary milled phosphate rock | 110 g/kg P, soluble in mineral acids, of which at least 25% must be water-soluble. Sedimentary milled phosphate rock: Particle size: • At least 80% capable of passing through a sieve with a mesh of 150 micron. • At least 99% capable of passing through a sieve with a mesh of 300 micron. | | Solubility (1), (2) and (3); Solubility (4) and (5) optional, provided the calcium and sulphur content are at least 10 g/kg |
| 6 Phosphoric acid solution | Chemically derived product that contains phosphoric acid as essential component | 100 g/kg P soluble in mineral acids | | Solubility (2) |
| 7 Sedimentary milled phosphate rock powder | Product derived from milling sedimentary phosphate rock and contains carbonate appetite as essential component | 80 g/kg P soluble in mineral acids, of which at least 20% must be soluble in 2% citric acid and at least 70% must be soluble in four successive extractions with 2% citric acid. Particle size: • At least 80% capable of passing through a sieve with a mesh of 150 micron. • At least 98% capable of passing through a sieve with a mesh of 630 micron. | | Solubility (2); Solubility (3) and (4) optional provided the calcium content is at least 10 g/kg. Declaration of P-component. A phosphate rock of this fineness shall be designated with the word "powder" or the letter "P". |

| | NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS |
|----|--|--|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 8 | Phosphate rock-sedimentary phosphate rock (micro granules) | Product derived through milling sedimentary phosphate rock and contains carbonate appetite as essential component. | 80 g/kg P soluble in mineral acids of which at least 20% must be soluble in 2% citric acid and at least 70% must be soluble in four successive extractions with 2% citric acid. Particle size: <ul style="list-style-type: none"> • At least 20% capable of passing through a sieve with a mesh of 150 micron. • At least 98% capable of passing through a sieve with a mesh of 630 micron. | | Solubility (2) Solubility (3) and (4) optional, provided the calcium content is at least 10 g/kg Declaration of P-component (ex. Sedimentary milled phosphate rock). A phosphate rock of this fineness shall be designated with the word "micro granules" or the letters "µG" (µK) |
| 9 | Fused phosphate | Melted fusion of natural phosphate and magnesium hydro-silicate rock | At least 100 g/kg P soluble in strong acid of which at least 97,4% is soluble in 2% citric acid 60 g/kg Mg soluble in 2% citric acid; 100 g/kg Si soluble in 2% citric acid | 1. P soluble in 3% citric acid. 2. Mg soluble in 2% citric acid. 3. Ca soluble in 2% citric acid. 4. Si soluble in 2% citric acid. | Regulation 5(2) |
| 10 | Diammonium phosphate | Ammonium phosphates produced by reacting ammonia with phosphoric acid | 160 g/kg N 200 g/kg P | 1. P Soluble in mineral acid 2. P soluble in 2% citric acid | Solubility (2) and (3) |
| 11 | Mono ammonium phosphate | Ammonium phosphates produced by reacting ammonia with phosphoric acid | 100g/kg N 200g/kg P | | Solubility (2) and (3) |
| 12 | Mono potassium phosphate | | 220 g/kg P 278 g/kg K | | Solubility (2) and (3) |

TABLE 3
POTASSIUM FERTILIZERS

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|--|---|--|--|---|
| | NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS | |
| 1 | Potassium chloride | Product derived from raw potassium salts, and contains potassium chloride as essential component. | 480 g/kg K (solid) 100 g/kg K (liquid) | 1. Water-soluble potassium 2. Water-soluble magnesium 3. Total sulphur 4. Hot water-soluble magnesium 5. Total calcium 6. Total nitrogen 7. Water-soluble nitrogen 8. Hot water-soluble potassium | Solubility (1) | |
| 2 | Potassium chloride that contains magnesium salts | Product derived from raw potassium salts with added magnesium salts and contains potassium chloride and magnesium salts as essential components. | 150 g/kg K (solid) 30 g/kg Mg (liquid) Magnesium is present as water-soluble salts. | | Solubility (1) and (2); Solubility (3) optional, provided the sulphur content is at least 10 g/kg | |
| 3 | Potassium sulphate | Production chemically derived from potassium salts and contains potassium sulphate as essential component. | 390 g/kg K (solid) 30 g/kg K (liquid) Maximum chloride content: 30 g/kg Cl | | Solubility (1); Solubility (3) optional, provided it contains at least 10 g/kg sulphur. Declaration of "low chlorine" must meet requirements of regulation 9(4)€ | |
| 4 | Potassium magnesium sulphate which occur chemically | Product chemically derived from potassium salts, possibly with addition of magnesium salts and contains potassium sulphate and magnesium sulphate as essential components. | 180 g/kg K (solid) 40 g/kg Mg (liquid) Magnesium in the form of water-soluble salts, present as magnesium. Maximum chloride content: 30 g/kg Cl | Same as for Potassium chloride 1 - 8 | Solubility (1) and (2); Solubility (3) optional, provided it contains at least 10 g/kg sulphur. Declaration of "low chlorine" must meet requirements of regulation (9(4))(e) | |
| 5 | Potassium nitrate | Product chemically derived from potassium salts and contains potassium nitrate as | 300 g/kg K 100 g/kg N | | Solubility (1) and (6) | |

| 1 | NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS |
|---|--|--|---|---|---|
| 2 | | 3 | 4 | 5 | 6 |
| 6 | Sulphomag | essential components. Natural mineral that contains sulphur, magnesium and potassium | 170 g/kg K | | Solubility (4) and (8) Solubility (3) optional, provided it contains at least 10 g/kg sulphur |
| 7 | Potassium magnesium sulphate which occur naturally | A double salt of magnesium sulphate and potassium sulphate with a small amount of sodium chloride. | 180 g/kg K 48 g/kg Mg 220 g/kg S 30 g/kg Cl max. | | Solubility (1) and (2) Solubility (3) optional, provided it contains at least 10 g/kg sulphur Declaration of low chloride must meet requirements of regulation 5(2) |
| * | Cold water-soluble potassium unless specified otherwise. | | | | |
| * | Products 1 - 6 listed are chemically derived products. | | | | |

TABLE 4

FERTILIZERS THAT CONTAIN MAINLY CALCIUM, MAGNESIUM OR SULPHUR

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|--|--|---|--|--|
| NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS | |
| 1 | Calcium sulphate | Product of natural or industrial origin and contains calcium sulphate at different degrees of hydration | 180 g/kg Ca 120 g/kg S Milling Fineness: <ul style="list-style-type: none"> At least 90% to pass through a 2000 micron sieve. At least 50% to pass through a 250 micron sieve. | 1. Total sulphur 2. Total calcium 3. Water-soluble magnesium | Solubility (1) and (2) |
| 2 | Elemental sulphur | Reasonably fine natural or industrial product, in powder or granule form with or without filler material | 900 g/kg S | | Solubility (1) |
| 3 | Magnesium sulphate | Product that contains magnesium sulphate heptahydrate as essential component | 90 g/kg Mg 120 g/kg S | | Solubility (3); Solubility (1) optional |
| 4 | Calcium chloride | | 183 g/kg Ca | | Solubility (2) |
| 5 | Calcium EDTA | Water-soluble product obtained by combining calcium chemically with a chelating agent | 100 g/kg Ca | | Solubility (2) |
| 6 | Magnesium sulphate anhydrous | | 200 g/kg Mg 260 g/kg S | | Solubility (1) and (3) |
| 7 | Magnesium sulphate monohydrate - kieserite | Product of mineral origin containing monohydrated magnesium sulphate as the main component | 175 g/kg Mg 230 g/kg S | | Solubility (1) and (3) |
| 8 | Magnesium sulphate heptahydrate | Product containing heptahydrated magnesium sulphate as the main | 95 g/kg Mg 125 g/kg S | | Solubility (1) and (3) |

| 1 | NAME OF PRODUCT | METHOD OF MANUFACTURING & ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT, FORM, OTHER REQUIREMENTS | FORMS AND SOLUBILITIES TO BE DECLARED IN COLUMN 6 | DECLARATION OF SOLUBILITIES AND OTHER NORMS |
|---|-----------------|--|--|---|---|
| 2 | | 3 | 4 | 5 | 6 |
| 9 | Magnesium EDTA | component Water-soluble product obtained by combining magnesium chemically with a chelating agent | 60 g/kg Mg | | Solubility (3) |

TABLE 5

SOLID FERTILIZER MIXTURES CONTAINING TWO OR MORE MACRO ELEMENTS

| 1 | METHOD OF MANUFACTURE AND ESSENTIAL COMPONENTS | MINIMUM PLANT NUTRIENT CONTENT | | MINIMUM PLANT NUTRIENT PER ELEMENT | | FORMS, SOLUBILITIES AND ELEMENTAL PLANT NUTRIENT CONTENT TO BE DECLARED AS SPECIFIED IN COLUMNS 8, 9 AND 10 | | | DECLARATION OF FORMS, SOLUBILITIES AND OTHER NORMS | | |
|--|---|---|---------|--|--|---|---|--|--|----|--|
| | | TOTAL | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| 1 NPK-, NP-, NK- or PK- fertilizers | 2 Product chemically derived or through mixing without the addition of organic plant nutrients of animal or plant origin | 100 g/kg N + P + K 80 g/kg N + P 80 g/kg N + K 80 g/kg P + K | 10 g/kg | 5 1. Total N 2. Nitrate-N 3. Ammonium-N 4. Amine-N 5. Cyanamide-N 6. Urea formaldehyde | 6 1. Water-soluble P 2. P soluble in mineral acids 3. P soluble in 2% citric acid | 7 Total K | 8 Total N If any of the N forms (2) to (6) are present at, at least 1% may be declared. | 9 1) An NPK-, or PK-fertilizer free of basic slag, calcium magnesium silico phosphate, partially solubilised phosphate rock or sedimentary milled phosphate rock must be declared in terms of solubility (3); solubility (1) and (2) optional. 2) An NPK-, NP- or PK-fertilizer that: (a) contains basic slag or calcium magnesium silico phosphate, must be declared in terms of solubilities (1), (2) and (3); (b) sedimentary milled phosphate rock or partially solubilised sedimentary phosphate rock, must be declared in terms of solubility (2) and | 10 1) Total K 2) Declaration of "low chloride" must meet the requirements of regulation 9 (4) (e) 3) Chloride content may be declared | | |