

## COUNCIL DIRECTIVE

of 18 December 1975

## on the approximation of the laws of the Member States relating to fertilizers

(76/116/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament<sup>(1)</sup>,

Having regard to the opinion of the Economic and Social Committee<sup>(2)</sup>,

Whereas in each Member State fertilizers must display certain technical characteristics laid down by mandatory provisions; whereas these provisions, concerning more particularly the composition and definition of fertilizer types, the designations of these types, their identification and their packaging, differ from one Member State to another; whereas by their disparity they hinder trade within the European Economic Community;

Whereas these obstacles to the establishment and functioning of the common market can be reduced or even removed if the same provisions are adopted by all the Member States, either in addition to or in place of their present laws;

Whereas it is necessary to this end to determine at Community level the designation, definition and composition of the principal straight and compound fertilizers in the Community; whereas it should likewise be provided that fertilizers satisfying the criteria laid down by this Directive be marked 'EEC fertilizer';

Whereas Community rules on the identification and labelling of these fertilizers, and on the closure of the containers, should also be laid down;

Whereas the production of fertilizers is subject to varying degrees of fluctuation due to manufacturing techniques or basic materials; whereas, sampling and analytical procedures may also contain variations; whereas, on these accounts, it is necessary to authorize tolerances on the declared nutrient contents; whereas it is advisable, in the interest of the agricultural user, to keep these tolerances within narrow limits;

Whereas this Directive concerns only straight and compound fertilizers; whereas subsequent Directives will lay down provisions relating, *inter alia*, to liquid fertilizers, secondary elements and trace elements;

Whereas the determination of the sampling techniques and the methods of analysis, as well as any changes or additions to be made thereto in consideration of technical progress, are implementing measures of a technical nature, and whereas it is appropriate to assign their adoption to the Commission in order to simplify and speed up the procedure;

Whereas technical progress necessitates the rapid adaptation of the technical requirements defined in the various Directives relating to fertilizers; whereas, in order to facilitate the implementation of the measures required for this purpose, it is advisable to provide for a procedure establishing close cooperation between the Member States and the Commission within the Committee on the adjustment to technical progress of Directives which concern the abolition of technical barriers to trade in fertilizers,

## HAS ADOPTED THIS DIRECTIVE:

*Article 1*

This Directive shall apply to products which are marketed as fertilizers and designated 'EEC fertilizer'.

*Article 2*

Member States shall take all the necessary measures to ensure that the designation 'EEC fertilizer' may

<sup>(1)</sup> OJ No C 49, 28. 6. 1973, p. 42.

<sup>(2)</sup> OJ No C 123, 27. 11. 1972, p. 34.

only be used for fertilizers belonging to one of the solid fertilizer types listed in Annex I and complying with the conditions laid down by the Directive and Annexes I to III thereto.

### *Article 3*

Member States shall take all the necessary measures to ensure that the fertilizers referred to in Article 1 are provided with identification markings. These identification markings are listed under paragraph 1 of Annex II and the terms and conditions governing the application of these markings are set out under paragraph 2 of the same Annex.

If the fertilizers are packed, these markings must appear on the packages or labels. For containers with a quantity of fertilizer exceeding 100 kg, these markings need appear only on the accompanying documents. If the fertilizers are in bulk, these markings must appear on the accompanying documents.

In order to satisfy the requirements of Annex II, paragraph 1(b) and (c), Member States may prescribe that for fertilizers marketed in their territories, indication of the phosphorus, potassium and magnesium contents shall be expressed:

- solely in the oxide form ( $P_2O_5$ ,  $K_2O$ ,  $MgO$ ),
- or solely in the elemental form (P, K, Mg),
- or in both these forms simultaneously.

Where Member States exercise the option to prescribe that the phosphorus, potassium and magnesium contents be expressed in the form of elements, all references in the Annexes to the oxide form shall be expressed in elemental form and the numerical values converted using the following factors:

phosphorus pentoxide ( $P_2O_5$ )  $\times 0.436$   
= phosphorus (P);

potassium oxide ( $K_2O$ )  $\times 0.83$   
= potassium (K);

magnesium oxide ( $MgO$ )  $\times 0.6$   
= magnesium (Mg).

Member States who have exercised the said option shall make the necessary adaptations to the provisions contained in the Annexes to this Directive.

### *Article 4*

1. Without prejudice to other Community rules, the only markings permitted on the packages, labels

and accompanying documents referred to in Article 3 shall be the following indications relating to fertilizers:

- (a) the compulsory identification markings specified in paragraph 1 of Annex II;
- (b) the optional data listed in Annex I;
- (c) the manufacturer's own mark, the trade mark of the product and the trade description of the product;
- (d) the specific directions for the use, storage and handling of the fertilizer.

The indications referred to in (c) and (d) may not conflict with those referred to in (a) and (b) and must be clearly separated from them.

2. All the markings referred to in paragraph 1 must be clearly separated from any other information on the packages, labels and accompanying documents.

### *Article 5*

Member States may require that in their territory the label, the markings on the package and the accompanying documents should appear in at least their national language or languages.

### *Article 6*

In the case of packaged fertilizers, the package must be closed in such a way or by such a device that, when it is opened, the fastening, fastening seal or the package itself is irreparably damaged.

Valve sacks may be used.

### *Article 7*

Without prejudice to the provisions of other Community Directives, Member States may not on grounds of composition, identification, labelling or packaging, prohibit, restrict or hinder the marketing of fertilizers marked 'EEC fertilizer' which comply with the provisions of this Directive and the Annexes thereto.

### *Article 8*

1. Member States shall take all the necessary measures to ensure that fertilizers marketed with the marking 'EEC fertilizer' are subjected to official

control measures for the purpose of verifying that they comply with this Directive and with Annexes I and II thereto.

2. Compliance with this Directive and with Annexes I and II in respect of conformity to types of fertilizer and compliance with the declared nutrient content and the declared content expressed as forms and/or solubilities of such nutrients may be verified at official inspections only by means of sampling and analysis methods established in accordance with this Directive and taking into account the tolerances specified in Annex III.

3. Member States may take all the necessary measures to ensure that systematic advantage is not taken of the tolerances defined in Annex III.

#### *Article 9*

1. Any amendments which are necessary in order to adjust columns 4, 5 and 6 of Part A and columns 8, 9 and 10 of Part B of Annexes I and III to technical progress shall be adopted in accordance with the procedure laid down in Article 11.

2. Sampling and analysis methods shall likewise be determined in accordance with the said procedure.

#### *Article 10*

1. A committee (hereinafter called 'the committee'), is hereby set up to adjust to technical progress those Directives which concern the abolition of technical barriers to trade in fertilizers. It shall consist of representatives of the Member States with a representative of the Commission as chairman.

2. The committee shall adopt its rules of procedure.

#### *Article 11*

1. Where the procedure laid down in this Article is to be followed, the matter shall be referred to the committee by the chairman, either on his own initiative or at the request of a representative of a Member State.

2. The representative of the Commission shall submit to the committee a draft of the measures to be adopted. The committee shall deliver its opinion on the draft within a period of two months. Opinions shall be adopted by a majority of 41 votes, the votes of the Member States being weighted as provided in Article 148 (2) of the Treaty. The chairman shall not vote.

3. (a) Where the proposed measures are in accordance with the opinion of the committee, the Commission shall adopt them.

(b) Where the proposed measures are not in accordance with the opinion of the committee, or if no opinion is delivered, the Commission shall without delay propose to the Council the measures to be adopted. The Council shall act by a qualified majority.

(c) If, within three months of the proposal being submitted to it, the Council has not acted, the proposed measures shall be adopted by the Commission.

#### *Article 12*

1. Member States shall bring into force the provisions necessary to comply with this Directive within 24 months of its notification and shall forthwith inform the Commission thereof.

2. Member States shall communicate to the Commission the provisions of national law which they adopt in the field covered by this Directive.

#### *Article 13*

This Directive is addressed to the Member States.

Done at Brussels, 18 December 1975.

*For the Council*

*The President*

M. TOROS

## ANNEX I

## A. STRAIGHT FERTILIZERS

## I. 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 designation	Nutrient content to be declared; forms and solubilities of the nutrients; other criteria
					6
1	2	3	4	5	
1 (a)	Calcium nitrate (nitrate of lime)	Chemically obtained product containing calcium nitrate as its essential ingredient and possibly ammonium nitrate	15 % N Nitrogen expressed as total nitrogen or as nitric and ammoniacal nitrogen. Maximum content of ammoniacal nitrogen: 1.5 % N	Total nitrogen <i>Additional optional particulars:</i> Nitric nitrogen 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 Nitrogen expressed as nitric nitrogen. Minimum content of magnesium in the form of water-soluble salts expressed as magnesium oxide: 5 % MgO	Nitric nitrogen Water-soluble magnesium oxide	
2 (a)	Sodium nitrate (nitrate of soda)	Chemically obtained product containing sodium nitrate as its essential ingredient	15 % N Nitrogen expressed as nitric nitrogen	Nitric nitrogen	
2 (b)	Chile nitrate	Product prepared from caliche, containing sodium nitrate as its essential ingredient	15 % N 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 Nitrogen expressed as total nitrogen, at least 75 % of the nitrogen declared being bound in the form of cyanamide	Total nitrogen	

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 designation	Nutrient content to be declared; forms and solubilities of the nutrients; other criteria
1	2	3	4	5	6
3 (b)	<b>Nitrogenous calcium cyanamide</b>	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 Nitrogen expressed as total nitrogen, at least 75 % of the non-nitric nitrogen declared being bound in the form of cyanamide. Nitric nitrogen content: minimum: 1 % N maximum: 3 % N		Total nitrogen Nitric nitrogen
4	<b>Sulphate of ammonia</b>	Chemically obtained product containing ammonium sulphate as its essential ingredient	20 % N Nitrogen expressed as ammoniacal nitrogen		Ammoniacal nitrogen
5	<b>Ammonium nitrate or calcium ammonium nitrate</b>	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 Nitrogen expressed as nitric nitrogen and ammoniacal nitrogen, each of these two forms of nitrogen accounting for about half the nitrogen present	The designation 'calcium ammonium nitrate' is exclusively reserved for a fertilizer containing only calcium carbonate (limestone) and/or magnesia carbonate and calcium carbonate (dolomite) in addition to ammonium nitrate. The minimum content of these carbonates must be 20 % and their purity level at least 90 %	Total nitrogen Nitric nitrogen Ammoniacal nitrogen
6	<b>Ammonium sulphate-nitrate</b>	Chemically obtained product containing as essential ingredients ammonium nitrate and ammonium sulphate	25 % N Nitrogen expressed as ammoniacal and nitric nitrogen. Minimum nitric nitrogen content: 5 %		Total nitrogen Ammoniacal nitrogen Nitric nitrogen

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 designation	Nutrient content to be declared; forms and solubilities of the nutrients; other criteria
1	2	3	4	5	6
7	<b>Magnesium sulphonitrate</b>	Chemically obtained product containing ammonium nitrate, ammonium sulphate and magnesium sulphate as essential ingredients 5 % MgO	19 % N Nitrogen expressed as ammoniacal and nitric nitrogen. Minimum nitric nitrogen content: 6 % N Magnesium in the form of water-soluble salts expressed as magnesium oxide		Total nitrogen Ammoniacal nitrogen Nitric nitrogen Water-soluble magnesium oxide
8	<b>Magnesium ammonium nitrate</b>	Chemically obtained product containing ammonium nitrates and magnesium compound salts (dolomite, magnesium carbonate and/or magnesium sulphate) as essential ingredients	19 % N Nitrogen expressed as ammoniacal nitrogen and nitric nitrogen. Minimum nitric nitrogen content 6 % N Magnesium expressed as total magnesium oxide		Total nitrogen Ammoniacal nitrogen Nitric nitrogen Total magnesium oxide and possibly, water-soluble magnesium oxide
9	<b>Urea</b>	Chemically obtained product containing carbonyl diamide (carbamide) as its essential ingredient	44 % N Total ureic nitrogen (including carbonyl diamide). Maximum biuret content: 1.2 %		Total nitrogen, expressed as ureic nitrogen

## II. 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 designation	Nutrient content to be declared; forms and solubilities of the nutrients; other criteria
			4	5		
1	2	3	6			
1	<b>Basic slag</b> — Thomas phosphates — Thomas slag	Product obtained in iron-smelting by treatment of the phosphorus melts and containing calcium silico-phosphates as its essential ingredients	12 % $P_2O_5$ 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 % $P_2O_5$ Phosphorus expressed as phosphorus pentoxide soluble in 2 % citric acid  Particle size: at least 75 % able to pass through a sieve with a mesh of 0·160 mm, at least 96 % able to pass through a sieve with a mesh of 0·630 mm		Total phosphorus pentoxide (soluble in mineral acids) 75 % of which (to be indicated as % by weight) is soluble in 2 % citric acid (for marketing in France and Italy)  Total phosphorus pentoxide (soluble in mineral acids) and phosphorus pentoxide soluble in 2 % citric acid (for marketing in the United Kingdom)  Phosphorus pentoxide soluble in 2 % citric acid (for marketing in Germany, Belgium, Denmark, Ireland, Luxembourg and the Netherlands)	
2 (a)	<b>Normal superphosphate</b>	Product obtained by reaction of ground mineral phosphate with sulphuric acid and containing monocalcium phosphate as an essential ingredient as well as calcium sulphate	16 % $P_2O_5$ 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  Test sample: 1 g		Phosphorus pentoxide soluble in neutral ammonium citrate Water-soluble phosphorus pentoxide	
2 (b)	<b>Concentrated superphosphate</b>	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 % $P_2O_5$ 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  Test sample: 1 g		Phosphorus pentoxide soluble in neutral ammonium citrate Water-soluble phosphorus pentoxide	

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 designation	Nutrient content to be declared; forms and solubilities of the nutrients; other criteria
1	2	3	4	5	6
2 (c)	<b>Triple superphosphate</b>	Product obtained by reaction of ground mineral phosphate with phosphoric acid and containing monocalcium phosphate as its essential ingredient	38 % $P_2O_5$ 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 Test sample: 3 g		Phosphorus pentoxide soluble in neutral ammonium citrate Water-soluble phosphorus pentoxide
3	<b>Partially solubilized rock phosphate</b>	Product obtained by partial solubilization of ground rock phosphate with sulphuric acid or phosphoric acid and containing as essential ingredients monocalcium phosphate, tricalcium phosphate and calcium sulphate	20 % $P_2O_5$ Phosphorus expressed as $P_2O_5$ soluble in mineral acids, at least 40 % of the declared content of $P_2O_5$ being water-soluble Particle size: — at least 90 % able to pass through a sieve with a mesh of 0·160 mm — at least 98 % able to pass through a sieve with a mesh of 0·630 mm		Total phosphorus pentoxide (soluble in mineral acids) Phosphorus pentoxide soluble in water
4	<b>Dicalcium phosphate</b>	Product obtained by precipitation of solubilized phosphoric acid from mineral phosphates or bones, and containing dicalcium phosphate dihydrate as its essential ingredient	38 % $P_2O_5$ Phosphorus expressed as $P_2O_5$ soluble in alkaline ammonium citrate (Petermann) Particle size: — at least 90 % able to pass through a sieve with a mesh of 0·160 mm — at least 98 % able to pass through a sieve with a mesh of 0·630 mm		Phosphorus pentoxide soluble in alkaline ammonium citrate

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 designation	Nutrient content to be declared; forms and solubilities of the nutrients; other criteria
1	2	3	4	5	6
5	<b>Calcined phosphate</b>	Product obtained by heat treatment of ground rock phosphate with alkaline compounds and silicic acid, and containing calcium phosphate and calcium silicate as essential ingredients	25 % $P_2O_5$ Phosphorus expressed as $P_2O_5$ soluble in alkaline ammonium citrate (Petermann)  Particle size: — at least 75 % able to pass through a sieve with a mesh of 0·160 mm — at least 96 % able to pass through a sieve with a mesh of 0·630 mm		Phosphorus pentoxide soluble in alkaline ammonium citrate
6	<b>Aluminium-calcium phosphate</b>	Product obtained in amorphous form by heat treatment and grinding, containing aluminium and calcium phosphates as essential ingredients	30 % $P_2O_5$ 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)  Particle size: — at least 90 % able to pass through a sieve with a mesh of 0·160 mm — at least 98 % able to pass through a sieve with a mesh of 0·630 mm		Total phosphorus pentoxide (soluble in mineral acids) Phosphorus pentoxide soluble in alkaline ammonium citrate
7	<b>Soft ground rock phosphate</b>	Product obtained by grinding soft mineral phosphates and containing tricalcium phosphate and calcium carbonate as essential ingredients	25 % $P_2O_5$ 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  Particle size: — at least 90 % able to pass through a sieve with a mesh of 0·063 mm — at least 99 % able to pass through a sieve with a mesh of 0·125 mm		Total phosphorus pentoxide (soluble in mineral acids) Phosphorus pentoxide soluble in 2 % formic acid Percentage by weight of material able to pass through a sieve with a mesh of 0·063 mm

## III. 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 designation	Nutrient content to be declared; forms and solubilities of the nutrients; other criteria
					6
1	2	3	4	5	
1	Kainit	Product obtained - from crude potassium salts	10 % K <sub>2</sub> O Potassium expressed as water-soluble K <sub>2</sub> O 5 % MgO Magnesium in the form of water-soluble salts, expressed as magnesium oxide	Usual trade names may be added	Water-soluble potassium oxide Water-soluble magnesium oxide
2	Enriched kainit salt	Product obtained from crude potassium salts enriched by blending with potassium chloride	18 % K <sub>2</sub> O Potassium expressed as water-soluble K <sub>2</sub> O	Usual trade names may be added	Water-soluble potassium oxide 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 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 salt	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 Potassium expressed as water-soluble K <sub>2</sub> O 5 % MgO Magnesium in the form of water-soluble salts, expressed as magnesium oxide		Water-soluble potassium oxide Water-soluble magnesium oxide

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 designation	Nutrient content to be declared; forms and solubilities of the nutrients; other criteria
1	2	3	4	5	6
5	Sulphate of potash	Product obtained chemically from potassium salts and containing potassium sulphate as its essential ingredient	47 % K <sub>2</sub> O Potassium expressed as water-soluble K <sub>2</sub> O. Maximum chlorine content: 3 % Cl		Water-soluble potassium oxide Optional mention of the chlorine content where lower than 3 % Cl
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 Potassium expressed as water-soluble K <sub>2</sub> O 8 % MgO Magnesium in the form of water-soluble salts, expressed as magnesium oxide. Maximum chlorine content: 3 % Cl	Usual trade names may be added	Water-soluble potassium oxide Water-soluble magnesium oxide Optional mention of the chlorine content where lower than 3 % Cl

## B. LIST OF COMPOUND FERTILIZER TYPES

## 1. NPK FERTILIZERS

Type designation	Data on method of production	Minimum content (percentage by weight)		Forms, solubilities and nutrient content to be declared as specified in columns 8, 9 and 10; particle size		Data for identification of the fertilizers; other requirements			
		Total	For each of the nutrients	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	7	8	9	10
NPK Fertilizer	Product obtained chemically or by blending, without addition of organic nutrients of animal or vegetable origin	20 % (N + P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O)	3 % N 5 % P <sub>2</sub> O <sub>5</sub> 5 % K <sub>2</sub> O	(1) Total nitrogen (2) Nitric nitrogen	(1) Water-soluble P <sub>2</sub> O <sub>5</sub> (2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate	(1) Total nitrogen (2) If any of the forms of nitrogen (2) to (5) amounts to at least 1% by weight, it must be declared	1. An NPK fertilizer free from Thomas slag, calcined phosphate, aluminum-calcium phosphate, partially solubilized rock phosphate and soft ground rock phosphate must be declared in accordance with solubilities (1), (2) or (3): — when the water-soluble P <sub>2</sub> O <sub>5</sub> does not amount to 2%, solubility (2) only shall be declared; — 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)).	(1) Water-soluble phosphate, aluminum-calcium oxide	(1) Water-soluble potassium oxide

- (2) The indication 'low in chlorine' is linked to a maximum content of 2% Cl.
- (3) Chlorine content may be declared
- (4) An NPK fertilizer containing soft ground rock phosphate or partially solubilized rock phosphate must be free from Thomas slag, calcined phosphate and aluminum-calcium phosphate. It shall be declared in accordance with solubilities (1), (3) and (4).
- (5) The P<sub>2</sub>O<sub>5</sub> content soluble in mineral acids only must not exceed 2%. For this type 1, the test sample for determining solubilities (2) and (3) shall be 1 g.
- (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
- (6b) P<sub>2</sub>O<sub>5</sub> soluble in 2% citric acid

Type designation	Data on method of production		Minimum content (percentage by weight)			Forms, solubilities and nutrient content to be declared as specified in columns 8, 9 and 10, particle size			Data for identification of the fertilizers; other requirements		
	Total	For each of the nutrients	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	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
1	2	3	4	5	6	7	8	9	10		

(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 (Joule)

(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

This type of fertilizer must contain:

- at least 2% P<sub>2</sub>O<sub>5</sub> soluble in mineral acids only (solubility (4));
- at least 5% P<sub>2</sub>O<sub>5</sub> soluble in water and neutral ammonium citrate (solubility (3));
- 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 'NPK fertilizer containing soft ground rock phosphate' or 'NPK fertilizer containing partially solubilized rock phosphate'. For this type 2 (a), the test sample for determining solubility (3) shall be 3 g.

2. (b) An NPK fertilizer containing aluminium-calcium phosphate must be free from Thomas slag, calcined phosphate, soft ground rock phosphate and partially solubilized rock phosphate.

It shall be declared in accordance with solubilities (1) and (7), the latter applying after deduction of the solubility in water.

*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 solubilized rock phosphate: at least 90% able to pass through a sieve with a mesh of 0.160 mm

Type designation	Data on method of production	Minimum content of nutrients (percentage by weight)		Forms, solubilities and nutrient contents, to be declared as specified in columns 8, 9 and 10; particle size				Data for identification of the fertilizers; other requirements		
		Total	For each of the nutrients	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	N
1	2	3	4	5	6	7	8	9	10	

This type of fertilizer must contain:

- at least 2 % of water-soluble P<sub>2</sub>O<sub>5</sub> (solubility (1));
- at least 5 % of P<sub>2</sub>O<sub>5</sub> according to solubility (7).

This type of fertilizer must be marked under the designation 'NPK fertilizer containing aluminium-calcium phosphate'.

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:

- for fertilizers based on Thomas slag: solubility (6a) (France, Italy), (6b) (Germany, Belgium, Denmark, Ireland, Luxembourg, Netherlands, United Kingdom);
- for fertilizers based on calcined phosphate: solubility (5);
- for fertilizers based on aluminium-calcium phosphate: solubility (7);
- for fertilizers based on soft ground rock phosphate: solubility (8).

## 2. NP FERTILIZERS

Type designation	Data on method of production	Minimum content of nutrients (percentage by weight)		Forms, solubilities and nutrient content to be declared as specified in columns 8, 9 and 10; particle size				Data for identification of the fertilizers; other requirements				
		Total	For each of the nutrients	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	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
1	NP fertilizer Product obtained chemically or by blending without addition of organic nutrients of animal or vegetable origin	18 % (N + P <sub>2</sub> O <sub>5</sub> )	3 % N 5 % P <sub>2</sub> O <sub>5</sub>	(1) Total nitrogen (2) Nitric nitrogen (3) Ammoniacal nitrogen (4) Ureic nitrogen (5) Cyanamide nitrogen	(1) Water-soluble P <sub>2</sub> O <sub>5</sub> (2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate (3) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and in water (4) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids only (5) P <sub>2</sub> O <sub>5</sub> soluble in alkaline ammonium citrate (Petermann) (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 (6b) P <sub>2</sub> O <sub>5</sub> soluble in 2 % citric acid	7	8	9	9	9	9	10

Type designation	Data on method of production	Forms, solubilities and nutrient contents, to be declared as specified in columns 8, 9 and 10; particle size				Data for identification of the fertilizers; other requirements			
		Total	For each of the nutrients	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	N
1	2	3	4	5	6	7	8	9	10
				(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 (Joule);					
				(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					

**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 solubilized rock phosphate: at least 90% able to pass through a sieve with a mesh of 0-160 mm

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:

- at least 2% P<sub>2</sub>O<sub>5</sub> soluble in mineral acids only (solubility (4));
- at least 5% P<sub>2</sub>O<sub>5</sub> soluble in water and neutral ammonium citrate (solubility (3));
- 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 solubilized rock phosphate'.

For this type 2 (a), the test sample for determining solubility (3) shall be 3 g.

2(b). An NP fertilizer containing aluminium-calcium phosphate, must be free from Thomas slag, calcined phosphate, soft ground rock phosphate and partially solubilized 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:

- at least 2% water-soluble P<sub>2</sub>O<sub>5</sub> (solubility (1));
- at least 5% P<sub>2</sub>O<sub>5</sub> according to solubility (7).

Type designation	Data on method of production	Maximum content of nutrients (percentage by weight)						Forms, solubilities and nutrient contents, to be declared as specified in columns 8, 9 and 10; particle size			Data for identification of the fertilizers; other requirements		
		Total	For each of the nutrients	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	7	8	9	10				

This type of fertilizer must be marketed under the designation 'NP fertilizer containing aluminium-calcium phosphate'.

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.

The declaration of the solubility of the P<sub>2</sub>O<sub>5</sub> must be given in accordance with the following solubilities:

- for fertilizers based on Thomas slag: solubility (6a) (France, Italy), (6b) (Germany, Belgium, Denmark, Ireland, Luxembourg, Netherlands, United Kingdom);
- for fertilizers based on calcined phosphate: solubility (5);
- for fertilizers based on aluminium-calcium phosphate: solubility (7);
- for fertilizers based on soft ground rock phosphate: solubility (8).

## 3. NK FERTILIZERS

Type designation	Data on method of production	Minimum content (percentage by weight)		Forms, solubilities and nutrient contents, to be declared as specified in columns 8, 9 and 10; particle size			Data for identification of the fertilizers; other requirements		
		Total	For each of the nutrients	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	7	8	9	10
NK fertilizer	Product obtained chemically or by blending, without addition of organic nutrients of animal or vegetable origin	18% (N + K <sub>2</sub> O)	3% N 5% K <sub>2</sub> O	(1) Total nitrogen  (2) Nitric nitrogen  (3) Ammoniacal nitrogen  (4) Ureic nitrogen  (5) Cyanamide-nitrogen	Water-soluble K <sub>2</sub> O	(1) Total nitrogen  (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  (2) The indication 'low in chlorine' is linked to a maximum content of 2% Cl  (3) Chlorine content may be declared		

## 4. PK FERTILIZERS

Type designation	Date on method of production	Minimum content of nutrients (percentage by weight)		Forms, solubilities and nutrient contents, to be declared as specified in columns 8, 9 and 10; particle size				Data for identification of the fertilizers; other requirements		
		Total	For each of the nutrients	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	10
PK fertilizer	Product obtained chemically or by blending, without addition of organic nutrients of animal or vegetable origin	18 % P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O	5 % P <sub>2</sub> O <sub>5</sub> 5 % K <sub>2</sub> O		(1) Water-soluble P <sub>2</sub> O <sub>5</sub>  (2) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate  (3) P <sub>2</sub> O <sub>5</sub> soluble in neutral ammonium citrate and in water  (4) P <sub>2</sub> O <sub>5</sub> soluble in mineral acids only  (5) P <sub>2</sub> O <sub>5</sub> soluble in alkaline ammonium citrate (Petermann)	Water-soluble K <sub>2</sub> O	7	8	9	

(1) A PK fertilizer free from Thomas slag, calcined phosphate, aluminium-calcium phosphate, partially solubilized rock phosphate and soft ground rock phosphate must be declared in accordance with solubilities (1), (2) or (3):

- when the water-soluble P<sub>2</sub>O<sub>5</sub> does not amount to 2 % solubility (2) only shall be declared;
- 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)).

The P<sub>2</sub>O<sub>5</sub> content soluble in mineral acids only must not exceed 2 %.

For this type 1, the test sample for determining solubilities (2) and (3) shall be 1 g.

(2) The indication 'low chlorine content' is linked to a maximum content of 2 % Cl

(3) Chlorine content may be declared

(4) A PK fertilizer containing soft ground rock phosphate or partially solubilized 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).

(5) P<sub>2</sub>O<sub>5</sub> soluble in 2 % citric acid

(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

(6b) P<sub>2</sub>O<sub>5</sub> soluble in 2 % citric acid

Type designation	Data on method of production		Minimum content of nutrients (percentage by weight)		Forms, solubilities and nutrient contents, to be declared as specified in columns 8, 9 and 10; particle size		Data for identification of the fertilizers; other requirements			
	Total	For each nutrient		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	7	8	9	10	
					(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)					This type of fertilizer must contain: — at least 2% P <sub>2</sub> O <sub>5</sub> soluble in mineral acids only (solubility (4)); — at least 5% P <sub>2</sub> O <sub>5</sub> soluble in water and neutral ammonium citrate (solubility (3)); — at least 2.5% water-soluble P <sub>2</sub> O <sub>5</sub> (solubility (1)).
					(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					This type of fertilizer must be marketed under the designation 'PK fertilizer containing soft ground rock phosphate' or 'PK fertilizer containing partially solubilized rock phosphate'. For this type 2(a), the test sample for determining solubility (3) shall be 3 g.
										2(b). A PK fertilizer containing aluminium-calcium phosphate must be free from Thomas slag, calcined phosphate and partially solubilized 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: — at least 2% water-soluble P <sub>2</sub> O <sub>5</sub> (solubility (1)); — at least 5% P <sub>2</sub> O <sub>5</sub> according to solubility (7).
										<i>Particle size of the basic phosphatic ingredients:</i> 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 solubilized rock phosphate: at least 90% able to pass through a sieve with a mesh of 0.160 mm

Type designation	Minimum content of nutrients (percentage by weight)		Forms, solubilities and nutrient contents, to be declared as specified in columns 8, 9 and 10; particle size					Data for identification of the fertilizers; other requirements		
	Total	For each nutrient	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	9	10
1	2	3	4	5	6	7	8			

This type of fertilizer must be marketed under the designation 'PK fertilizer containing aluminium-calcium phosphate'.

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:

- for fertilizers based on Thomas slag: solubility (6a) (France, Italy), (6b) (Germany, Belgium, Denmark, Ireland, Luxembourg, Netherlands, United Kingdom);
- for fertilizers based on calcined phosphate: solubility (5);
- for fertilizers based on aluminium-calcium phosphate: solubility (7);
- for fertilizers based on soft ground rock phosphate: solubility (8).

**ANNEX II****PROVISIONS CONCERNING IDENTIFICATION AND LABELLING****1. Compulsory identification markings**

- (a) The words 'EEC FERTILIZER' in capital letters.
- (b) The designation of the type of fertilizer, in accordance with Annex I, and the numbers indicating the nutrient content which, for compound fertilizers, should be in the order laid down by the said designation.
- (c) The declared content in respect of each nutrient; and the declared content expressed as forms and/or solubilities where those are specified in Annex I.

The nutrient content for straight and compound fertilizers must be given as a percentage by weight, as whole numbers or, where necessary, to one decimal place and for compound fertilizers in the following order: N, P<sub>2</sub>O<sub>5</sub> and/or P, K<sub>2</sub>O and/or K.

The forms and solubilities of the nutrients must also be expressed as a percentage by weight of fertilizer, except where Annex I explicitly provides that this content shall be otherwise expressed.

Nutrients must be indicated both in words and by the appropriate chemical symbols (e.g. nitrogen (N), phosphorus (P), phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>), potassium (K), potassium oxide (K<sub>2</sub>O), magnesium (Mg), magnesium oxide (MgO)).

- (d) Guaranteed net or gross weight.

If the gross weight is given, the tare weight must be indicated beside it.

- (e) The name or trade name or trademark and the address of the person responsible for marketing the fertilizer, established within the Community.

**2. Labelling requirements**

- (a) The labels or markings printed on the package and giving the particulars mentioned under 1 must be placed in a conspicuous position. Attached labels must be held in place by whatever system is used for closing the package. If this system consists of a lead or other type of seal, the seal must bear the name or mark of the person responsible referred to under 1 (e).
- (b) The markings referred to in paragraph 1 must be and must remain indelible and clearly legible.
- (c) In the cases referred to in Article 3, a copy of the documents containing the identification markings must accompany the goods and be accessible for inspection purposes.

**ANNEX III****TOLERANCES**

- (a) The tolerances given in this Annex are the permitted deviation of the measured value of a nutrient from its declared value.
- (b) They are intended to accommodate variations in manufacturing, sampling and analysis.
- (c) No tolerances are allowed in respect of the minimum and maximum contents specified in Annex I.
- (d) Where no maximum is given there are no restrictions on an excess of nutrient above the declared amount.
- (e) The tolerance allowed in respect of the declared nutrient contents in the various types of fertilizer are as follows:

**A. STRAIGHT FERTILIZERS**

*absolute value in percentage by weight  
expressed as N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O, MgO, Cl*

**I. Nitrogenous fertilizers**

calcium nitrate	0·4
calcium — magnesium nitrate	0·4
sodium nitrate	0·4
chile nitrate	0·4
calcium cyanamide	1·0
nitrogenous calcium cyanamide	1·0
ammonium sulphate	0·3
Ammonium nitrate or calcium ammonium nitrate:	
— up to and including 32 %	0·8
— more than 32 %	0·6
ammonium sulphate-nitrate	0·8
magnesium sulphonitrate	0·8
magnesium ammonium nitrate	0·8
urea	0·4

**II. Phosphatic fertilizers****Thomas slag:**

— declaration expressed as a range of 2 % by weight	0
— declaration expressed as a single number	1·0

**Other phosphatic fertilizers**

P <sub>2</sub> O <sub>5</sub> solubility in:	(number of fertilizer in Annex I)	
— mineral acid	(3, 6, 7)	0·8
— formic acid	(7)	0·8
— neutral ammonium citrate	(2a, 2b, 2c.)	0·8
— alkaline ammonium citrate	(4, 5, 6)	0·8
— water	(2a, 2b, 3) (2c)	0·9 1·3

**III. Potassic fertilizers**

kainit	1·5
enriched kainit salt	1·0

muriate of potash:	
— up to and including 55 %	1·0
— more than 55 %	0·5
potassium chloride containing magnesium salt	1·5
sulphate of potash	0·5
sulphate of potash containing magnesium salt	1·5

**Other components**

magnesium oxide	0·9
chlorine	0·2

**B. COMPOUND FERTILIZERS****1. Nutrient elements**

— N	1·1
— P <sub>2</sub> O <sub>5</sub>	1·1
— K <sub>2</sub> O	1·1

**2. Total negative deviations from the declared value**

— binary fertilizers	1·5
— ternary fertilizers	1·9

- (f) The tolerance allowed in respect of the declared content for the various forms of nitrogen or the declared solubilities of phosphorus pentoxide is one-tenth of the overall content of the nutrient concerned with a maximum of 2 % by weight, provided that the overall content of that nutrient remains within the limits specified in Annex I and the tolerances specified in paragraph (e) above.