

COMMISSION REGULATION (EU) No 223/2012

of 14 March 2012

amending Regulation (EC) No 2003/2003 of the European Parliament and of the Council relating to fertilisers for the purposes of adapting Annexes I and IV thereto to technical progress

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers ⁽¹⁾, and in particular Article 31(1) and (3) thereof,

Whereas:

- (1) Article 3 of Regulation (EC) No 2003/2003 provides that a fertiliser belonging to a type of fertiliser listed in Annex I thereto and complying with the conditions laid down in that Regulation may be designated EC fertiliser.
- (2) The fertiliser types listed in Annex I to Regulation (EC) No 2003/2003 include some types that may be sold only in the form of fine powders, and other types that may also be sold in the form of suspensions. Fertilisers in the form of suspensions pose less risk to the health of farmers when used in conditions under which the use of fine powders would result in the inhalation of dusts. To reduce the exposure of farmers to dusts, the option of using suspensions should be extended to include manganese micronutrient fertiliser types, and the range of ingredients permitted in existing boron and copper fertiliser suspensions should also be extended.
- (3) Regulation (EC) No 2003/2003 foresees the use of complexing agents as ingredients in micro-nutrient fertilisers. However, no such fertilisers have been designated EC fertiliser because no list of authorised complexing agents has yet been established in Annex I to that Regulation and because there are no type designations for fertiliser containing complexing agents. Given that suitable complexing agents (lignosulfonic acid salts – hereinafter ‘LS’) are now available, they should be added to the list of authorised complexing agents and corresponding type designations should be created. Existing type designations for fertiliser solutions should also be adapted to allow the use of complexing agents, but each such solution should not contain more than one complexing agent to facilitate official controls.
- (4) The new rules for micronutrient solutions and suspensions require relabelling of those fertiliser types.

However, fertilisers labelled according to the old rules will remain in stock for some time. Manufacturers should therefore be allowed sufficient time to prepare new labels and to sell off all existing stocks.

- (5) Regulation (EC) No 2003/2003 provides a set of rules for the labelling of mixed micro-nutrient fertilisers but does not provide for the corresponding type designations in its Annex I. Regulation (EU) No 137/2011 introduced Table E.2.4 in Section E.2 of Annex I to Regulation (EC) No 2003/2003 containing the corresponding type designations and clearer rules for mixtures of micro-nutrient fertilisers. However, Table E.2.4 requires some labelling information, which in certain cases would not be in conformity with that required by Articles 6(6) and 23(2) of Regulation (EC) No 2003/2003. Table E.2.4 should therefore be amended accordingly. A transitional period should be granted to allow economic operators to adapt to the new rules and sell off their stocks of mixed micro-nutrient fertilisers.
- (6) N,N'-di(2-hydroxybenzyl)ethylenediamine-N,N'-diacetic acid (hereinafter ‘HBED’) is an organic chelating agent for micro-nutrients. In particular, iron chelated with HBED is used to correct iron shortages and to remedy ferric chlorosis for a large variety of fruit trees. The elimination of ferric chlorosis and its symptoms ensures green foliage, good growth and development of the fruit. The iron chelated form of HBED has been authorised in Poland without any damage for the environment. HBED should therefore be added to the list of authorised organic chelating agents for micro-nutrients in Annex I to Regulation (EC) No 2003/2003. However, it is appropriate to provide for a transitional period so that HBED is authorised after the publication of the corresponding EN Standard.
- (7) Dicyandiamide/1,2,4 triazole (hereinafter ‘DCD/TZ’) and 1,2,4 triazole/3-methylpyrazole (hereinafter ‘TZ/MP’) are nitrification inhibitors that are used in combination with fertilisers containing the nutrient nitrogen in the form of urea and/or ammonium salts. Those inhibitors prolong the availability of nitrogen to crops, reduce nitrate leaching, and reduce emissions of nitrous oxide to the atmosphere.
- (8) N-(2-nitrophenyl)phosphoric triamide (hereinafter ‘2-NPT’) is a urease inhibitor designed for urea-containing nitrogen fertilisers to increase the availability of nitrogen to plants while reducing emissions of ammonia to the atmosphere.

⁽¹⁾ OJ L 304, 21.11.2003, p. 1.

- (9) DCD/TZ, TZ/MP and 2-NPT have been used in Germany and DCD/TZ and TZ/MP in the Czech Republic for many years where they have been shown to be efficient and to pose no risk to the environment. DCD/TZ, TZ/MP and 2-NPT should therefore be added to the list of authorized nitrification and urease inhibitors in Annex I to Regulation (EC) No 2003/2003 to make them more widely available to farmers throughout the Union.
- (10) Regulation (EC) No 2003/2003 requires the control of EC fertilisers in accordance with the methods of sampling and analysis that are described in Annex IV thereto. However, some of those methods are not internationally recognised and should be replaced by EN standards recently developed by the European Committee for Standardisation.
- (11) EN standards are usually validated by means of an inter-laboratory comparison to quantify the reproducibility and repeatability of the analytical methods. A distinction between validated EN Standards and non-validated methods should therefore be made to identify those EN Standards which have proven statistical reliability.
- (12) To simplify legislation and facilitate future revision, it is appropriate to replace the full text of the analytical methods in Annex IV to Regulation (EC) No 2003/2003 with references to the EN standards published by the European Committee for Standardisation.
- (13) Regulation (EC) No 2003/2003 should therefore be amended accordingly.
- (14) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 32 of Regulation (EC) No 2003/2003,

HAS ADOPTED THIS REGULATION:

Article 1

Amendments

1. Annex I to Regulation (EC) No 2003/2003 is amended in accordance with Annex I to this Regulation.
2. Annex IV to Regulation (EC) No 2003/2003 is amended in accordance with Annex II to this Regulation.

Article 2

Entry into force

This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

Point (1)(a), points (b)(i), (c)(i), (c)(ii), (d)(i), (e)(i), (f)(i) and point (2) of Annex I shall apply by 4 April 2013.

Annex I, point (3) entry 11 shall apply from 4 July 2012.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 14 March 2012.

For the Commission

The President

José Manuel BARROSO

Annex I to Regulation (EC) No 2003/2003 is amended as follows:

(1) Section E.1 is amended as follows:

(a) In Section E.1.1, entry 1f is replaced by the following:

'1f	Borated fertiliser in suspension	Product obtained by suspending types 1a and/or 1b and/or 1c and/or 1d in water	2 % total B	The designation must include the names of the constituents present	Total boron (B) Water-soluble boron (B) if present'
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(b) Section E.1.2 is amended as follows:

(i) entry 2c is replaced by the following:

'2c	Cobalt fertiliser solution	Aqueous solution of types 2a and/or 2b or 2d	2 % water-soluble Co When types 2a and 2d are mixed, the complexed fraction must be at least 40 % of the water-soluble Co	The designation must include: (1) the name(s) of the mineral anion(s), if present (2) the name of any authorised chelating agent that chelates at least 1 % water-soluble cobalt if present and that can be identified and quantified by a European standard or the name of the authorised complexing agent that can be identified by a European standard, if present	Water-soluble cobalt (Co) Cobalt (Co) chelated by each authorised chelating agent that chelates at least 1 % water-soluble cobalt and that can be identified and quantified by a European standard Cobalt (Co) complexed by the authorised complexing agent that can be identified by a European Standard Optional: total cobalt (Co) chelated by authorised chelating agent(s)'
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(ii) the following entry 2d is added:

'2d	Cobalt complex	Water-soluble product containing cobalt chemically combined with one authorised complexing agent	5 % of water-soluble Co and the complexed fraction must be at least 80 % of the water-soluble cobalt	The designation must include the name of the authorised complexing agent that can be identified by a European Standard	Water-soluble cobalt (Co) Total cobalt (Co) complexed'
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(c) Section E.1.3 is amended as follows:

(i) entry 3f is replaced by the following:

'3f	Copper fertiliser solution	Aqueous solution of types 3a and/or 3d or 3i	2 % water-soluble Cu When types 3a and 3i are mixed, the complexed fraction must be at least 40 % of the water-soluble Cu	The designation must include: (1) the name(s) of the mineral anion(s), if present (2) the name of any authorised chelating agent that chelates at least 1 % water-soluble copper if present and that can be identified and quantified by a European standard or the name of the authorised complexing agent that can be identified by a European standard	Water-soluble copper (Cu) Copper (Cu) chelated by each authorised chelating agent that chelates at least 1 % water-soluble copper and that can be identified and quantified by a European standard Copper (Cu) complexed by the authorised complexing agent that can be identified by a European Standard Optional: Total copper (Cu) chelated by authorised chelating agent(s)'
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(ii) entry 3h is replaced by the following:

'3h	Copper fertiliser in suspension	Product obtained by suspending types 3a and/or 3b and/or 3c and/or 3d and/or 3g in water	17 % total Cu	The designation must include: (1) the name(s) of the anions, if present (2) the name of any authorised chelating agent that chelates at least 1 % water-soluble copper if present and that can be identified and quantified by a European standard	Total copper (Cu) Water-soluble copper (Cu) if present Copper (Cu) chelated by each authorised chelating agent that chelates at least 1 % water-soluble copper and that can be identified and quantified by a European standard'
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(iii) the following entry 3i is added:

'3i	Copper complex	Water-soluble product containing copper chemically combined with one authorised complexing agent	5 % of water-soluble Cu and the complexed fraction must be at least 80 % of the water-soluble copper	The designation must include the name of the authorised complexing agent that can be identified by a European Standard	Water-soluble copper (Cu) Total copper (Cu) complexed'
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(d) Section E.1.4 is amended as follows:

(i) entry 4c is replaced by the following:

'4c	Iron fertiliser solution	Aqueous solution of types 4a and/or 4b or 4d	2 % water-soluble Fe When types 4a and 4d are mixed, the complexed fraction must be at least 40 % of the water-soluble Fe	The designation must include: (1) the name(s) of the mineral anion(s), if present (2) the name of any authorised chelating agent that chelates at least 1 % water-soluble iron if present and that can be identified and quantified by a European standard or the name of the authorised complexing agent that can be identified by a European standard	Water-soluble iron (Fe) Iron (Fe) chelated by each authorised chelating agent that chelates at least 1 % water-soluble iron and that can be identified and quantified by a European standard Iron (Fe) complexed by the authorised complexing agent that can be identified by a European Standard Optional: total iron (Fe) chelated by authorised chelating agent(s)'
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(ii) the following entry 4d is added:

'4d	Iron complex	Water-soluble product containing iron chemically combined with one authorised complexing agent	5 % of water-soluble Fe and the complexed fraction must be at least 80 % of the water-soluble iron	The designation must include the name of the authorised complexing agent that can be identified by a European Standard	Water-soluble iron (Fe) Total iron (Fe) complexed'
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(e) Section E.1.5 is amended as follows:

(i) entry 5e is replaced by the following:

'5e	Manganese fertiliser solution	Aqueous solution of types 5a and/or 5b or 5g	2 % water-soluble Mn When types 5a and 5g are mixed, the complexed fraction must be at least 40 % of the water-soluble Mn	The designation must include: (1) the name(s) of the mineral anion(s), if present (2) the name of any authorised chelating agent that chelates at least 1 % water-soluble manganese if present and that can be identified and quantified by a European standard or the name of the authorised complexing agent that can be identified by a European standard	Water-soluble manganese (Mn) Manganese (Mn) chelated by each authorised chelating agent that chelates at least 1 % water-soluble manganese and that can be identified and quantified by a European standard Manganese (Mn) complexed by the authorised complexing agent that can be identified by a European Standard Optional: total manganese (Mn) chelated by authorised chelating agent(s)'
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(ii) the following entries 5f and 5g are added:

‘5f	Manganese fertiliser in suspension	Product obtained by suspending types 5a and/or 5b and/or 5c in water	17 % total Mn	The designation must include: (1) the name(s) of the anions, if present (2) the name of any authorised chelating agent that chelates at least 1 % water-soluble manganese if present and that can be identified and quantified by a European standard	Total manganese (Mn) Water-soluble manganese (Mn) if present Manganese (Mn) chelated by each authorised chelating agent that chelates at least 1 % water-soluble manganese and that can be identified and quantified by a European standard
5g	Manganese complex	Water-soluble product containing manganese chemically combined with one authorised complexing agent	5 % of water-soluble Mn and the complexed fraction must be at least at least 80 % of the water-soluble manganese	The designation must include the name of the authorised complexing agent that can be identified by a European Standard	Water-soluble manganese (Mn) Total manganese (Mn) complexed’

(f) Section E.1.7 is amended as follows:

(i) entry 7e is replaced by the following:

‘7e	Zinc fertiliser solution	Aqueous solution of types 7a and/or 7b or 7g	2 % water-soluble Zn When types 7a and 7g are mixed, the complexed fraction must be at least 40 % of the water-soluble Zn	The designation must include: (1) the name(s) of the mineral anion(s), if present (2) the name of any authorised chelating agent that chelates at least 1 % water-soluble zinc if present and that can be identified and quantified by a European standard or the name of the authorised complexing agent that can be identified by a European standard	Water-soluble zinc (Zn) Zinc (Zn) chelated by each authorised chelating agent that chelates at least 1 % water-soluble zinc and that can be identified and quantified by a European standard Zinc (Zn) complexed by the authorised complexing agent that can be identified by a European Standard Optional: total zinc (Zn) chelated by authorised chelating agent(s)’
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(ii) the following entry 7g is added:

‘7g	Zinc complex	Water-soluble product containing zinc chemically combined with one authorised complexing agent	5 % of water-soluble zinc and the complexed fraction must be at least 80 % of the water-soluble zinc	The designation must include the name of the authorised complexing agent that can be identified by a European Standard	Water-soluble zinc (Zn) Total zinc (Zn) complexed’
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(2) in Section E.2, Table E.2.4 is replaced by the following:

No	Type designation	Data on method of production and essential requirements	Minimum content of nutrients (percentage by weight) Data on expression of nutrients Other requirements	Other data on the type designation	Nutrient content to be declared Forms and solubilities of the micro-nutrients Other criteria
1	2	3	4	5	6
1	Mixture of micro-nutrients	Product obtained by mixing two or more E.1 types of fertiliser or obtained by dissolving and/or suspending two or more E.1 types of fertiliser in water	(1) 5 % total content for a solid mixture or (2) 2 % total content for a fluid mixture Individual micro-nutrients according to Section E.2.1	Name of each micronutrient and its chemical symbol present listed in alphabetical order of their chemical symbols followed by the name(s) of its counter-ion(s) immediately after the type designation.	Total content of each micro-nutrient expressed as percentage of the fertiliser by mass, except where a micro-nutrient is totally water-soluble. Water-soluble content of each micro-nutrient expressed as percentage of the fertiliser by mass where the soluble content is at least half of the total content. Where a micro-nutrient is totally water-soluble, only the water-soluble content shall be declared. Where a micro-nutrient is chemically linked with an organic molecule, the micro-nutrient shall be declared immediately following the water-soluble content as a percentage of the fertiliser by mass, followed by one of the terms “chelated by” or “complexed by” with the name of each authorised chelating or complexing agent(s) as set out in Section E.3. The name of the organic molecule may be replaced by its initials. The following statement below the compulsory and optional declarations: “To be used only where there is a recognised need. Do not exceed the appropriate dose rate”.

(3) Section E.3.1 is replaced by the following:

E.3.1. Chelating agents ⁽¹⁾

Acids, or sodium, potassium or ammonium salts of:

No	Designation	Alternative designation	Chemical formula	CAS number of the acid ⁽¹⁾
1	Ethylenediaminetetraacetic acid	EDTA	C ₁₀ H ₁₆ O ₈ N ₂	60-00-4
2	2-hydroxyethylethylenediaminetriacetic acid	HEEDTA	C ₁₀ H ₁₈ O ₇ N ₂	150-39-0
3	diethylenetriaminepentaacetic acid	DTPA	C ₁₄ H ₂₃ O ₁₀ N ₃	67-43-6
4	ethylenediamine- N,N'-di[(ortho-hydroxyphenyl)acetic acid]	[o,o] EDDHA	C ₁₈ H ₂₀ O ₆ N ₂	1170-02-1
5	ethylenediamine- N-[(ortho-hydroxyphenyl)acetic acid]- N'-[(para-hydroxyphenyl)acetic acid]	[o,p] EDDHA	C ₁₈ H ₂₀ O ₆ N ₂	475475-49-1
6	ethylenediamine- N,N'-di[(ortho-hydroxy-methylphenyl)acetic acid]	[o,o] EDDHMA	C ₂₀ H ₂₄ O ₆ N ₂	641632-90-8
7	ethylenediamine- N-[(ortho-hydroxy-methylphenyl)acetic acid]- N'-[(para-hydroxy-methylphenyl)acetic acid]	[o,p] EDDHMA	C ₂₀ H ₂₄ O ₆ N ₂	641633-41-2
8	ethylenediamine- N,N'-di[(5-carboxy-2-hydroxyphenyl)acetic acid]	EDDCHA	C ₂₀ H ₂₀ O ₁₀ N ₂	85120-53-2
9	ethylenediamine- N,N'-di[(2-hydroxy-5-sulfophenyl)acetic acid] and its condensation products	EDDHSA	C ₁₈ H ₂₀ O ₁₂ N ₂ S ₂ + n*(C ₁₂ H ₁₄ O ₈ N ₂ S)	57368-07-7 and 642045-40-7
10	Iminodisuccinic acid	IDHA	C ₈ H ₁₁ O ₈ N	131669-35-7
11	N,N'-di(2-hydroxybenzyl)ethylenediamine- N,N'-diacetic acid	HBED	C ₂₀ H ₂₄ N ₂ O ₆	35998-29-9

⁽¹⁾ For information only.;

⁽¹⁾ The chelating agents are to be identified and quantified by the European Standards that cover the mentioned chelating agents.'

(4) Section E.3.2 is replaced by the following:

E.3.2. Complexing agents ⁽¹⁾

The following complexing agents are only permitted in products for fertigation and/or foliar application, except for Zn lignosulfonate, Fe lignosulfonate, Cu lignosulfonate and Mn lignosulfonate that can be applied directly to the soil.

Acids, or sodium, potassium or ammonium salts of:

No	Designation	Alternative designation	Chemical formula	CAS number of the acid ⁽¹⁾
1	Lignosulfonic acid	LS	No chemical formula available	8062-15-5

⁽¹⁾ For information only.

⁽¹⁾ The complexing agents are to be identified by the European Standards that cover the mentioned complexing agents.;

(5) in Section F.1, the following entries are added:

'2	Product containing dicyandiamide (DCD) and 1,2,4-triazole (TZ) EC# EINECS No 207-312-8 EC# EINECS No 206-022-9	Minimum 2,0 Maximum 4,0		Mixture ratio 10:1 (DCD:TZ)
3	Product containing 1,2,4-triazole (TZ) and 3-methylpyrazole (MP) EC# EINECS No 206-022-9 EC# EINECS No 215-925-7	Minimum 0,2 Maximum 1,0		Mixture ratio 2:1 (TZ:MP)

(6) in Section F.2, the following entry is added:

'2	N-(2-nitrophenyl)phosphoric triamide (2-NPT) EC# EINECS No 477-690-9	Minimum 0,04 Maximum 0,15		
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ANNEX II

Section B of Annex IV to Regulation (EC) No 2003/2003 is amended as follows:

(1) methods 3.1.1 to 3.1.4 are replaced by the following:

Method 3.1.1

Extraction of phosphorus soluble in mineral acids

EN 15956: Fertilizers – Extraction of phosphorus soluble in mineral acids

This method of analysis has been ring-tested.

Method 3.1.2

Extraction of phosphorus soluble in 2 % formic acid

EN 15919: Fertilizers – Extraction of phosphorus soluble in 2 % formic acid

This method of analysis has not been ring-tested.

Method 3.1.3

Extraction of phosphorus soluble in 2 % citric acid

EN 15920: Fertilizers – Extraction of phosphorus soluble in 2 % citric acid

This method of analysis has not been ring-tested.

Method 3.1.4

Extraction of phosphorus which is soluble in neutral ammonium citrate

EN 15957: Fertilizers – Extraction of phosphorus which is soluble in neutral ammonium citrate

This method of analysis has been ring-tested.;

(2) methods 3.1.5.1 to 3.1.5.3 are replaced by the following:

Method 3.1.5.1

Extraction of soluble phosphorus according to Petermann at 65 °C

EN 15921: Fertilizers – Extraction of phosphorus according to Petermann at 65 °C

This method of analysis has not been ring-tested.

Method 3.1.5.2

Extraction of the soluble phosphorus according to Petermann at ambient temperature

EN 15922: Fertilizers – Extraction of phosphorus according to Petermann at ambient temperature

This method of analysis has not been ring-tested.

Method 3.1.5.3

Extraction of phosphorus soluble in Joulie's alkaline ammonium citrate

EN 15923: Fertilizers – Extraction of phosphorus in Joulie's alkaline ammonium citrate

This method of analysis has not been ring-tested.;

(3) method 3.1.6 is replaced by the following:

Method 3.1.6

Extraction of water soluble phosphorus

EN 15958: Fertilizers – Extraction of water soluble phosphorus

This method of analysis has been ring-tested.;

- (4) method 3.2 is replaced by the following:

Method 3.2

Determination of extracted phosphorus

EN 15959: Fertilizers – Determination of extracted phosphorus

This method of analysis has been ring-tested.;

- (5) methods 7.1 and 7.2 are replaced by the following:

Method 7.1

Determination of the fineness of grinding (dry procedure)

EN 15928: Fertilizers – Determination of the fineness of grinding (dry procedure)

This method of analysis has not been ring-tested.

Method 7.2

Determination of the fineness of grinding of soft natural phosphates

EN 15924: Fertilizers – Determination of the fineness of grinding of soft natural phosphates

This method of analysis has not been ring-tested.;

- (6) methods 8.1 to 8.5 are replaced by the following:

Method 8.1

Extraction of total calcium, total magnesium, total sodium and total sulphur in the forms of sulphates

EN 15960: Fertilizers – Extraction of total calcium, total magnesium, total sodium and total sulphur in the forms of sulphates

This method of analysis has not been ring-tested.

Method 8.2

Extraction of total sulphur present in various forms

EN 15925: Fertilizers – Extraction of total sulphur present in various forms

This method of analysis has not been ring-tested.

Method 8.3

Extraction of water soluble calcium, magnesium, sodium and sulphur (in the form of sulphates)

EN 15961: Fertilizers – Extraction of water soluble calcium, magnesium, sodium and sulphur (in the form of sulphates)

This method of analysis has not been ring-tested.

Method 8.4

Extraction of water soluble sulphur where the sulphur is in various forms

EN 15926: Fertilizers – Extraction of water soluble sulphur where the sulphur is in various forms

This method of analysis has not been ring-tested.

Method 8.5

Extraction and determination of elemental sulphur

EN 16032: Fertilizers – Extraction and determination of elemental sulphur

This method of analysis has not been ring-tested.;

- (7) the following method 8.11 is inserted:

Method 8.11

Determination of calcium and formate in calcium formate

EN 15909: Fertilizers – Determination of calcium and formate in calcium foliar fertilizers

This method of analysis has been ring-tested.;

- (8) method 11.3 is replaced by the following:

Method 11.3

Determination of iron chelated by o,o-EDDHA, o,o-EDDHMA and HBED

EN 13368-2: Fertilizers – Determination of chelating agents in fertilizers by chromatography. Part 2: Determination of Fe chelated by o,o-EDDHA, o,o-EDDHMA and HBED by ion pair-chromatography

This method of analysis has been ring-tested.;

- (9) the following methods 11.6, 11.7 and 11.8 are inserted:

Method 11.6

Determination of IDHA

EN 15950: Fertilizers – Determination of N-(1,2-dicarboxyethyl)-D,L-aspartic acid (Iminodisuccinic acid, IDHA) using high-performance liquid chromatography (HPLC)

This method of analysis has been ring-tested.

Method 11.7

Determination of lignosulfonates

EN 16109: Fertilizers – Determination of micro-nutrient ions complexed in fertilizers – Identification of lignosulfonates

This method of analysis has been ring-tested.

Method 11.8

Determination of the complexed micro-nutrient content and of the complexed fraction of micro-nutrients

EN 15962: Fertilizers – Determination of the complexed micro-nutrient content and of the complexed fraction of micro-nutrients

This method of analysis has been ring-tested.;

- (10) the following methods 12.3, 12.4 and 12.5 are inserted:

Method 12.3

Determination of 3-methylpyrazole

EN 15905: Fertilizers – Determination of 3-methylpyrazole (MP) using high-performance liquid chromatography (HPLC)

This method of analysis has been ring-tested.

Method 12.4

Determination of TZ

EN 16024: Fertilizers – Determination of 1H,1,2,4-triazole in urea and in fertilizers containing urea – Method using high-performance liquid chromatography (HPLC)

This method of analysis has been ring-tested.

Method 12.5

Determination of 2-NPT

EN 16075: Fertilizers – Determination of N-(2-nitrophenyl)phosphoric triamide (2-NPT) in urea and fertilizers containing urea – Method using high-performance liquid chromatography (HPLC)

This method of analysis has been ring-tested.;
