

(10 September 2012 – to date)

## **FERTILIZERS, FARM FEEDS, AGRICULTURAL REMEDIES AND STOCK REMEDIES ACT 36 OF 1947**

*Government Notice 1239 in Government Gazette 3834 dated 18 June 1947. Commencement date:*

*1 July 1948 [Proc. No. 111, Gazette No. 3977].*

### **REGULATIONS REGARDING FERTILIZERS**

*Government Notice R732 in Government Gazette 35666 dated 10 September 2012. Commencement date:*

*10 September 2012.*

I, Tina Joemat-Pettersson do, under section 23 of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947), made the regulation schedule

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## SCHEDULE

### PART I: GENERAL

#### 1. Definitions

Words and phrases in these regulations shall have the meaning assigned hereto in the Act, and unless the context otherwise indicates -

**"Act"** means the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947);

**"activity index (AI)"** means the amount of cold water insoluble nitrogen (CWIN) which is soluble in hot water in a urea formaldehyde fertilizer and reflects the rate at which CWIN will become available: *[sic]*

**"agricultural liming material"** means substances of which the calcium and magnesium compounds have the ability to reduce soil acidity and contain no harmful elements;

**"amorphous lime"** means soft, porous liming materials originating mainly from secondary deposits (as opposed to crystalline, non-porous liming materials mainly of primary origin);

**"analysis certificate"** means a certificate issued by a ISO 17025 accredited laboratory or AgriLASA **certified for, the relevant analysis**, indicating the full chemical and/or physical composition for the particular fertilizer, as required by the Registrar;

**"application fee"** means monies that, in terms of these regulations, are payable for the registration of fertilizers and the annual renewal of such registrations and also include monies payable for the mixing and sale of prescription mixtures;

**"Ash"** means inorganic substances remaining after all the organic substances have been removed (loss on ignition);

**"blender"** means a manufacturer or person who mixes registered fertilizers for sale or someone who mixes such fertilizers on prescription for someone. **"Mixer"** has the same meaning;

**"bulk blending"** means the mixing of **dry and liquid** fertilizers;

**"bulk"** means the packaging of a fertilizer other than in a sealed container;

**"calcite"** means calcium carbonate as it occurs in nature, with a maximum of 9 g/kg magnesium and a minimum of 380 g/kg calcium;

"**calcium carbonate equivalent (CCE)**" means the acid neutralizing ability of an agricultural liming material expressed as a percentage of the acid neutralising ability of pure calcium carbonate;

"**calcium carbonate**" means the carbonate of calcium that contains 400 g/kg calcium;

"**calcium hydroxide**" means the hydroxide of calcium that contains 530 g/kg calcium;

"**calcium oxide**" means the oxide of calcium that contains 700 g/kg calcium;

"**chelate**" means the product of a chemical reaction between a metal cation and a chelating agent in which the cation is in a normal oxidation state and is attached to the chelating agent through coordinate covalent bonds;

"**chelating agent**" means a molecule having two or more sites which donate electron pairs to a central metal cation and is large enough to form a five or six membered ring structure such as EDTA (ethylenediaminetetraacetic acid), NTA (nitrilo-triacetic acid) and IDS (iminodisuccinic acid);

"**chemically compounded fertilizer**" means a substance which, without it being mixed with another substance, contains one or more of the plant nutrient nitrogen (N), phosphorus (P) or potassium (K), provided that the total plant nutrient content of such fertilizer should be at least 1/3 of the nominal value of a similar pure fertilizer and that all macro-elements that it contains in registerable amounts may be registered;

"**complex**" means the product of a chemical reaction between a metal cation and a complexing agent, such as metal ions with polyphosphates, lignin sulphate and ammonia;

"**complexing agent (sequestering agent)**" means a molecule which reacts with a metal cation to form a product of sufficient stability that the cation does not undergo any of its typical reactions such as precipitation in basic solutions;

"**composite sample**" means the combined incremental samples taken from the same sampled portion;

"**compost**" means a stabilised, homogenous, fully decomposed substance of animal or plant origin to which no plant nutrients have been added and that is free of substances or elements that could be harmful to man, animal, plant or the environment;

"**container**" means the packaging in which a measured amount of a fertilizer is offered for sale;

"**custom mix**" means a mixture compiled on the written advice of a qualified person for a specific client and such mixture must be of registered raw materials mixed at the written request of a specific client. Prescription mixture shall have the same meaning;

**"dry matter basis"** means, in the case of liming materials dried at 105°C to constant mass, provided that in the case of substances that react with carbon dioxide (CO<sub>2</sub>) the atmosphere in the oven be replaced with an inert gas such as nitrogen (N<sub>2</sub>);

**"dry sieving"** means the lime samples screened dry on a sieve shaker according to SABS method;

**"enrich"** means the addition of registered inorganic fertilizers to registered organic fertilizers in order to raise the plant nutrient content of the organic fertilizer, provided that the total N, P and K must be a minimum of 100 g/kg and **"enriched"** has the same meaning;

**"enriched organic fertilizer"** means a mixture of registered organic fertilizer with registered inorganic fertilizer that contains a minimum of 330 g/kg organic fertilizer, excluding urea;

**"fertilizer"** means any substance which is intended or offered to be used for improving or maintaining the growth of plants or the productivity of the soil;

**"fertilizer group"** means the category under which a particular fertilizer falls. Fertilizers are categorised as follows:

**Group 1** which is a fertilizer containing a total equal or greater than 100 g/kg of N, P or K or any combination thereof; **or**

**Group 2** which is a fertilizer containing a total of less than 100 g/kg of N, P or K or any combination thereof or any other recognised plant nutrient(s) in acceptable amounts as indicated in Tables 1 - 9 and 13 - 15;

**Group 3** which is a fertilizer containing natural or synthetic substance(s) or organism(s) that improve(s) or maintain(s) the physical, chemical or biological condition (fertility) of the soil; and **"soil improver"** has the same meaning;

**"fertilizer mixture"** means a physical mixture of two or more chemically compounded fertilizers or organic fertilizers that contain one or more of the plant nutrients nitrogen (N), phosphorus (P) and potassium (K) as indicated in the tables (Annexure A);

**"final samples"** means a replicate representative part of the reduced sample or, where no intermediate reduction is required, the composite sample maybe regarded as identical sub-samples of the sampled portion;

**"fulvic acid"** means the organic substances of composition which remain in solution when an aqueous, alkaline extract of organic matter or soil is acidified;

**"Guaranteed analysis"** means the stated minimum and/or maximum nutrient value of a fertilizer;

**"granules"** means products formed by layering or conglomeration under controlled conditions to form almost spherical particles;

**"guano"** means the excrement of seabirds, as it occurs in nature;

**"qualified person"** means a person registered as Professional Natural Scientist with the South African Council for Natural Scientific Professions. *[sic]*

**"house and garden fertilizer"** means a fertilizer manufactured, recommended, packaged and offered for sale for use on pot plants and in home gardens and not intended for agricultural use;

**"humates"** means salts of humic acids;

**"humic acid"** means a mixture of dark-coloured substances of undefined composition extracted from soil with dilute alkali and precipitated by acidification to a pH of 1-2 as well as similar material in coal deposits and other organic matter;

**"invoice"** means an accompanying letter, delivery note or weighbridge ticket, receipt note or receipt;

**"label"** means any written, printed or graphic representation attached to a container of a fertilizer or produced on a container in any possible manner and which states the details required in terms of these regulations for the particular fertilizers and **"labelled"** has the same meaning;

**"low chlorine"** means a fertilizer mixture with the maximum chloride content as prescribed in regulation 30(2);

**"macro-element"** means any of the elements nitrogen (N), phosphorus (P), potassium (K), calcium (Ca), magnesium (Mg), and sulphur (S);

**"macro-pellet"** means particle sizes that are noticeably larger than those of pellets;

**"magnesite"** means magnesium carbonate, as it occurs in nature, that contains a maximum of 10 g/kg calcium and a minimum of 275 g/kg magnesium;

**"magnesitic"** means magnesium carbonate that contains a minimum of 190 g/kg magnesium;

**"magnesium carbonate"** means the carbonate of magnesium that contains 280 g/kg magnesium and no calcium;

**"magnesium hydroxide"** means the hydroxide of magnesium that contains 410 g/kg magnesium and no calcium;

**"magnesium oxide"** means the oxide of magnesium that contains 600 g/kg magnesium and no calcium;

**"manufacture"** means make, compound, mix, formulate, process, package and label for purpose of sale and **"manufacturing"** or **"manufacturing process"** have a similar meaning;

**"micro-element"** means any of the elements iron (Fe), zinc (Zn), copper (Cu), molybdenum (Mo), manganese (Mn), boron (B);

**"micro-pellet"** means particle sizes that are noticeably smaller than those of pellets;

**"municipal compost"** means the disinfected and stabilised organic fertilizer manufactured by the controlled decomposition of sorted and milled urban waste including fermentable industrial and commercial waste;

**"municipal waste"** means any municipal compost that does not meet the requirements for compost given in these regulations: on the understanding that such waste must meet the minimum requirements for municipal waste as set out in the regulations for the registration of fertilizers;

**"manufacturer"** means an individual or undertaking that manufactures or mixes fertilizers;

**"organic fertilizer"** means a fertilizer manufactured from substances of animal or plant origin, or a mixture of such substances, and that is free of any substances that can be harmful to man, animal, plant or the environment containing at least 40 g/kg prescribed plant nutrients;

**"organic fertilizer mixture"** means a mixture of registered organic fertilizers;

**"pellet"** means elongated cylindrical particles formed from wet cylindrically extruded material, cut to the desired length and then dried. No more than 10% remain on a 4 mm sieve and no more than 10% pass through a 1 mm sieve: provided that 90% fall within the interval of 1 mm to 4 mm and provided that the sieve size on which 10% of the particles remain contains openings that are not more than three times larger than those of the sieve on which 95% of the particles remain; and **"macro granule"** has the same meaning;

**"pelleted"** means the manufacture of a fertilizer in pellet form;

**"physical quality assurance"** means a test carried out to evaluate the fineness of a liming material and the pellet size of chemically compounded fertilizers or mixtures;

**"plant nutrient"** means an essential macro- or micro-element present in a fertilizer;

**"powder"** means particle sizes that are noticeably smaller than those for micro-pellets;

**"reduced samples"** means a representative part of the composite sample obtained from the latter by process of reduction, reduced to a suitable size for final division;

**"registered name"** means the name approved by the Registrar under which a fertilizer is registered and may be sold: provided that in the case of an organic fertilizer such name must reflect the main component of such fertilizer;

**"sampled portion"** means an identified and specified quantity of a material constituting a unit and having characteristics presumed to be uniform;

**"sample splitter"** means an apparatus designed to split a sample into two or more equal parts;

**"scoop"** means a sampling instrument with which samples of fertilizers occurring in bulk can be taken;

**"sealed"** means to close a container in such a visible manner with a mechanism that will break visibly the first time the container is opened;

**"sewage sludge"** means the disinfected and stabilised organic fertilizer manufactured from the treatment of raw sewage sludge;

**"shell lime"** means an agricultural liming material of which the calcium and magnesium carbonate originates exclusively from sea animals;

**"slags"** mean a mixture of the silicates of calcium and magnesium obtained from the iron and steel industry that are capable of reducing soil acidity and that contain a minimum of 300 g/kg silicon oxide ( $\text{SiO}_2$ );

**"slaked calcitic"** means calcium hydroxide with a maximum of 43 g/kg magnesium and a minimum of 700 g/kg as hydroxide;

**"slaked dolomitic"** means the hydroxide of calcium and magnesium with a minimum of 40 g/kg magnesium and a minimum of 700 g/kg hydroxide;

**"slaked magnesitic"** means magnesium hydroxide with a maximum of 40 g/kg calcium and a minimum of 700 g/kg as hydroxide;

**"slaked"** means the hydroxides of calcium and magnesium or a mixture thereof that contains at least 800 g/kg hydroxide;



**"slow release fertilizer"** means a fertilizer containing a plant nutrient in a form which delays its availability for plant uptake and use after application, or which extends its availability to the plant significantly longer than a reference "rapidly available nutrient fertilizer" such as ammonium nitrate or urea, ammonium phosphate or potassium chloride and "controlled release fertilizer" has the same meaning;

**"solution"** means a homogenous liquid containing the plant nutrients in true solution;

**"sterilisation installation"** means an installation used for the sterilisation of substances derived from animals and destined for use as a fertilizer according to a process approved by the Registrar for this purpose;

**"suspension"** means a liquid in which undissolved substances may be present;

**"tolerance"** means the permitted deviation in the natural variation of the stated value of a fertilizer that occurs in manufacture, sampling and chemical analysis, where the deviation is expressed as a percentage of the stated value of the fertilizer;

**"trademark"** means a mark to which the holder of the registration has the right, either as owner or a registered user thereof, to distinguish his fertilizer from that of any other manufacturer but excludes the registered name of a fertilizer as intended in these regulations;

**"total nutrients"** means the total sum of the N-, P- and K-content of a fertilizer;

**"unslaked calcitic"** means calcium oxide with a maximum of 43 g/kg magnesium and a minimum of 700 g/kg as oxides;

**"unslaked dolomitic"** means the oxides of calcium and magnesium with a minimum of 43 g/kg magnesium and a minimum of 700 g/kg oxides;

**"unslaked magnesitic"** means magnesium oxide with a maximum of 43 g/kg calcium and a minimum of 700 g/kg as oxides; and

**"unslaked"** means the oxides of calcium and magnesium or mixtures thereof that contain a minimum of 800 g/kg oxides.

## 2. Registration

- (1) An application in terms of section 3(1) of the Act for registration of a fertilizer, must be made on a form available from the Registrar for the purpose, or a clearly legible facsimile thereof on good quality A4 size paper of the same colour as the form supplied by the Registrar.

Such application must -

- (a) be made by a person residing in the Republic of South Africa or, in the case of a legal person that legal person shall have a registered office in the Republic;
  - (b) signed by an approved person;
  - (c) be accompanied by the prescribed application fee;
  - (d) be accompanied by two copies of a typed version of the details relating to the particular fertilizer that will be marked on the container in which it will be sold, or will be attached to the label of such container;
  - (e) be accompanied by guaranteed analysis from an independent ISO 17025 accredited laboratory or Agri Laboratory Association of Southern Africa (AgriLASA) affiliated laboratories for the product which was obtained in the current year of application for registration;
  - (f) be accompanied by a certificate of analysis from an independent ISO 17025 accredited laboratory or AgriLASA affiliated laboratories indicating maximum levels of potentially harmful elements permitted in fertilizer products as prescribed in table 12; and in case of sludge be accompanied by a certificate of analysis for microbial contaminants as prescribe in regulation 39(1)(d);
  - (g) In *[sic]* the case of Group 3 fertilizers, be accompanied by experimental results conducted under controlled environmental conditions in order to determine the biological efficacy of the particular fertilizer when required; and
  - (h) In *[sic]* the case of Group 3 fertilizers, be accompanied, when required by the Registrar, a risk assessment satisfying that the fertilizer has no adverse effect on animal health, human health or environment.
- (2) In the case where an AgriLASA laboratory, certified for the relevant analysis, is used, the responsibility lies with the laboratory to proof, or present valid AgriLASA certification upon request. Such laboratories must be certified laboratory who participate in the fertilizer proficiency scheme and who had obtained at least a one star (\*) (Z value <  $\pm 2$ ) moving average for the previous year. The Registrar must be supplied with the monthly proficiency audits by AgriLASA. The Registrar must furthermore be given access to the confidential numbers of the participating laboratories in order to access the laboratory's compliancy.

### 3. Period of registration

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- (1) Subject to the provision of sections 4 and 4A of the Act, a fertilizer registration in terms of section 3 of the Act shall be valid for three years.

#### **4. Renewal of registration**

- (1) An application in terms of section 3(4)(a) of the Act for renewal of registration of a fertilizer, must be made on a form available from the Registrar for the purpose, or a clearly legible facsimile thereof on good quality A4 size paper of the same colour as the form supplied by the Registrar.
- (2) Such an application must -
  - (a) depending on the case, be made by the person to whom the applicable registration certificate has been issued;
  - (b) be received no later than the date of lapsing intended in subregulation 3 below; on the proviso that should documentary proof be submitted of the timeous despatch of the application, such application shall be deemed to have been received on time;
  - (c) be accompanied by the prescribed fee;
  - (d) be accompanied by two copies of facsimiles of all labels used in connection with the sale of the fertilizer: provided that the Registrar may, depending on the circumstances, exempt the applicant from the provisions of this regulation; and
  - (e) be accompanied by a guaranteed analysis from an independent ISO 17025 accredited laboratory or AgriLASA certified, for the relevant analyses, and;
  - (f) be accompanied by a certificate of analysis from an independent ISO 17025 accredited laboratory, or AgriLASA certified for the relevant analyses indicating maximum levels of potentially harmful elements permitted in fertilizer products as prescribed in table 12; and in case of sludge be accompanied by a certificate of analysis for microbial contaminants as prescribe in regulation 38(1)(d).
- (3) Where AgriLASA laboratories are used, the provisions of regulation 2(2) must also be complied with.
- (4) Apart from the determinations of subregulation 2(b) above, an application in terms of subregulation 4(1) received by the Registrar after 31 January of a particular year will not be considered and a new application must be made for the registration of the respective fertilizer in terms of regulation 2: Provided that the Registrar may grant exemption from submission of the application form as intended in subregulation 2(1).

- (5) Anyone applying for renewal of a registration in terms of this regulation must submit a sworn statement that the information he supplies with such application for the particular fertilizer, or a label used in connection therewith, does not deviate in any respect from the comparable details that have already been registered or approved with respect to that fertilizer or label. Only the original of each application can be so declared or confirmed.

## **5. Conditions for certain registrations and renewal of certain registrations**

A registration and the renewal of a registration of a fertilizer, in terms of section 3 of the Act, is granted on condition that during the period of registration or a renewal or registration -

- (a) the composition of the particular fertilizer does not deviate by more than the allowable deviations under which it was registered;
- (b) the details approved for use on a label or container for sale of the particular fertilizer may not be altered without the prior written approval of the Registrar; and
- (c) the particular registration may not be transferred in any manner or aspect to anyone else.

## **6. Application for amendment of certain registrations and approved labels**

- (1) Should anyone in whose favour a fertilizer is registered, contemplate any alteration to its registered composition or a change to the details approved for use on a label, he should apply to the Registrar in the manner intended in regulation 2.
- (2) Such application should be accompanied by the applicable documentation, the current registration certificate and application fee stated in regulation 2(1)(c): Provided that the Registrar may waive the application fee should the particular change or alteration be in the public interest.

## **7. Return of registration certificate**

A registration certificate that is returned in terms of Section 4A(3) of the Act, should reach the Registrar within 14 days of the day on which -

- (a) the person to whom the particular registration certificate has been issued is informed in writing in terms of Section 5 of the Act of the reason for cancellation of such registration; or
- (b) the registration of the fertilizer has lapsed in terms of Section 4A(2) of the Act.

## **8. Containers of fertilizers**

- (1) A fertilizer shall be sold:

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- (a) in containers which are sound; and
  - (b) subject to the provisions of the Trade Metrology Act, 1973 (Act No. 77 of 1973), in containers that have been sealed or closed in a manner allowed by the nature of the fertilizer and containers shall be labelled or marked in terms of the provisions of Regulation 9 below.
- (2) Notwithstanding the provisions of subregulation (1), a fertilizer may be sold in a manner other than in containers if:
- (a) it is the same in all respects with the product that is sold in containers; and
  - (b) the requirements of these regulations are met.

## **9. Labelling of containers**

- (1) No person may sell any fertilizer in a container without an approved label.
- (2) A container of fertilizer shall not be labelled with any marks or signs other than the prescribed details in the labelling requirements, or in terms of a provision of any law, or / and which was approved by the Registrar.
- (3) The following details relating to a fertilizer must be printed on a label affixed to a container of such a fertilizer or marked on such container and such details should appear in the following order:
- (a) The registered trade mark, if applicable, and the trade name under which such fertilizer has been registered;
  - (b) The registered name of such fertilizer;
  - (c) The registered plant nutrient present in such fertilizer, expressed in the form and manner intended in subregulation (4);
  - (d) The registration number of such fertilizer together with a reference to the Act, expressed as "Reg Nr. .... Act No. 36 of 1947";
  - (e) The mass in the case of a solid and the volume or mass in the case of a liquid of such fertilizer at the time of packaging thereof, notwithstanding the provisions of the Trade Metrology Act, 1973 (Act No. 77 of 1973);
  - (f) The batch number of the fertilizer; and

- (g) The name, address and contact details of the registration holder.
- (4) The details referred to in subregulation 3(c) above are those that, in terms of these regulations are required or approved to be indicated, and
- (a) the element symbol of the particular plant nutrient must be followed by the registered content of the plant nutrient expressed in g/kg for macronutrients and mg/kg for micronutrients, rounded off to the lower whole number;
  - (b) should more than one plant nutrient require to be indicated, the details given in subregulation 4(a) above should be given with respect to each such plant nutrient in the order required or approved;
  - (c) besides the details in subregulation 3(a) and (b), the details in regulations 26 to 47 should be given;
  - (d) should the sum of the total plant nutrients be given, it should be given between brackets after the details indicated in subregulations 4(a), (b) and (c). Such sum must be given as a percentage; and
  - (e) in the case of a low chlorine mixture indicating the potassium carrier is optional.
- (5) The details mentioned in subregulations (1) and (2) must be given on one label that is affixed to one side of the container of the particular fertilizer or given on one side of such container and such details shall be clearly legible symbols, letters and figures. Print size of 8 points is recommended where applicable.
- (6) Instructions for use in respect of a fertilizer must appear on a label that is affixed to the container of such a fertilizer or if space on such label is limited on the back of the container or on a pamphlet placed in such container or accompanying the invoice as intended in regulation 10 provided that instructions for use are compulsory in the following cases:
- (a) if such a fertilizer has been registered to be applied by foliar application;
  - (b) if such a fertilizer is also registered as an animal feed, agricultural product or animal product in terms of the Act;
  - (c) if such a fertilizer is intended for use in hydroponics; and
  - (d) if such a fertilizer is a home or garden fertilizer. *[sic]*
  - (e) if in a container less than 20kg or 20 litres.

- (7) The instructions for use in subregulation (6) or those that may be used optionally must be as approved by the Registrar.
- (8) A container in which an imported fertilizer for sale in the Republic is packaged must, in addition to any details that the Registrar may approve, be marked or labelled with the details that a comparable fertilizer, manufactured in the Republic, would be required to have.

## **10. Supply of invoices**

- (1) Should a fertilizer with the exception of a prescription mixture be sold loose:
  - (a) the invoice must contain the details required in Regulation 9;
  - (b) a sample of the fertilizer, excluding agricultural lime and organic fertilizers, shall be taken provided that such sample:
    - (i) is taken by a method described in Annexure E; and
    - (ii) it is divided into two containers of at least 250 g or 250 cm<sup>3</sup> that are sealed and labelled in such a manner that the fertilizer can easily be identified as that described in the invoice;
  - (c) one container of sample referred to in subparagraph 1(b)(ii) must accompany the invoice and the other be retained by the seller for at least 6 months.
- (2) On delivery, an invoice must be handed over to the person to whom the fertilizer is delivered or his representative: provided that such a person acknowledges receipt of same in writing.

## **11. Invoices for bulk fertilizers or custom fertilizer mixtures**

- (1) The seller of a bulk fertilizer or a custom fertilizer mixture is to ensure that the invoice or delivery docket in relation to the fertilizer is: -
  - (a) handed to the purchaser or person authorized by the purchaser; or
  - (b) left in a safe and conspicuous position, at the place of dealing; or
  - (c) posted to the purchaser.
- (2) If the invoice or delivery docket is left in accordance with subregulation (1)(b), the seller is to post a copy of the invoice or delivery docket to the purchaser within 14 days of the delivery of the fertilizer.

## 12. Advertisements

- (1) No advertisement shall be published, screened or broadcast without prior approval of the Registrar.
- (2) Advertisements shall conform to the approved registration as well as the standards of the Advertising Standards Authority of South Africa or any relevant legislation.
- (3) Specific scientific claims in an envisaged advertisement must be submitted for approval by the Registrar.
- (4) The advertisement shall have the following details:
  - (a) An advertisement to be published in a newspaper, magazine, or other printed media:
    - (i) furnish the trade mark, if any, and the trade name of the fertilizer;
    - (ii) where it is applicable furnish the hazard statement;
    - (iii) indicate the name of plant nutrients which it contains;
    - (iv) contains the registration number of such fertilizer together with a reference to the Act, expressed as "Reg Nr. Act No. 36 of 1947"; and
    - (v) furnish the name and address of the registration holders.
  - (b) An advertisement to be screened or broadcasted shall at least have those details referred in sub-regulation (4)(a)(i) and (iv).
- (5) Any references in an advertisement to:
  - (a) plant nutrients;
  - (b) the instructions for use, claims, application; and
  - (c) the registration, of the fertilizer in question;shall correspond to those details on the approved label or be based on the data filed in support of the application for registration of the fertilizer being advertised.
- (6) No person may publish or distribute a false or misleading advertisement for a fertilizer.

## 13. Practices to be followed at manufacturing plants

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- (1) The practices relating to the running of an undertaking at a plant and relating to the manufacture, control, packaging, marking or labelling of a fertilizer for the purposes of sale thereof must be such that the composition and efficacy of the particular fertilizer meet the requirements in terms of which it was registered and that it possesses all the chemical, physical and other properties so registered.
- (2) Raw materials used for the manufacture of a fertilizer must be handled and stored such that:
  - (a) they are protected against damage, pollution and deterioration; and
  - (b) access can be reasonably gained to the different raw materials and fertilizers.
- (3) Chemical and physical quality control must be carried out regularly on raw materials used for the manufacture of a fertilizer and of the fertilizer manufactured from such raw materials by the person in whose favour the fertilizer is registered or by an independent laboratory ISO 17025 accredited or AgriLASA certified, for the relevant analyses.
- (4) The person in charge of a plant and responsible for the manufacture, control, packaging, marking or labelling of a fertilizer or liming material must have sufficient knowledge of the practices to be followed in running the manufacturing plant at such a plant and of the provisions of the Act.
- (5) Raw materials either stored loose or in containers and to be used in the manufacture of the fertilizer, must be clearly identifiable.
- (6) In the event that the fertilizer is not packed or labelled immediately after manufacture, its name shall be shown on the containers in which or the place at which it is stored.

#### **14. Requirements for manufacturing plants**

- (1) The premises where a fertilizer is manufactured, controlled, packed, marked, labelled or stored for the purpose of sale shall be kept orderly and clean and shall be duly registered under the Occupational Health and Safety Act, Act No. 85 of 1993.
- (2) The facilities and equipment which are available at an establishment shall be suitable for the purpose for which it is to be used to ensure that the composition of the fertilizer manufactured, controlled, packed, marked, stored or labelled there complies with the particulars registered in respect thereof, and that such fertilizer possesses the chemical, physical and other properties thus registered.
- (3) The area within the facility which is used to carry out a specific function in connection with the manufacture, control, packaging, labelling or warehousing of a fertilizer shall be appropriate for the proper execution of the particular function.

## **15. Records to be kept at manufacturing plants**

- (1) The person managing the plant must keep complete records in respect of each fertilizer that is manufactured, controlled, packaged or labelled including but not limited to:
  - (a) the results of quality control carried out in terms of regulation 13(3) of the raw materials used in the manufacture of the fertilizer and of such fertilizer; and
  - (b) complaints that have been received relating to the composition of the fertilizer or to the chemical, physical or other properties thereof.
- (2) The records kept in terms of subregulation 15(1) as well as the formulation of fertilizers manufactured at the plant, must be kept at such plant or other place approved by the Registrar, for at least two years after the date on which the particular fertilizer was manufactured.

## **16. Taking of samples**

- (1) Samples for the purpose of section 15 of the Act must only be taken by the Registrar or his delegate and any authorised person in terms of the Act and such sample must be taken in accordance with Annexure E.

## **17. Analysis of samples taken**

- (1) The analysis must be done at an independent ISO 17025 accredited laboratory or AgriLASA certified laboratory, appointed by the Minister for the relevant analyses.

## **18. Imports**

No person shall import a fertilizer into the Republic unless such fertilizer is registered, is of the composition quality and efficacy of the particular fertilizer meet the requirements in terms of which it was registered and that it possesses all the chemical, physical and other properties so registered: Provided that the Registrar may permit, in writing, for purposes of experimentation or for some purpose other than the sale of such fertilizer, the importation into the Republic of a specified quantity of a fertilizer which is not registered.

## **19. Ports of entry**

A fertilizer must be imported only through the ports of entry referred to in Annexure C.

## **Appeals**

## **20. Submission of appeals**

Prepared by:

- (1) An appeal in terms of section 6 of the Act must be lodged within 60 days after the date on which the reasons on which the appeal is based have been furnished in terms of section 5 of the Act, to the Director-General: Department of Agriculture, Forestry and Fisheries.
- (2) Such an appeal must:
  - (a) be in the form of a written statement that has been sworn or confirmed by the commissioner of oath;
  - (b) contain the reference number and date of the notification by which such a person or applicant has been informed of that decision;
  - (c) indicate the grounds on which such an appeal is based;
  - (d) be accompanied by the documentation relating to the subject of the appeal; and
  - (e) be accompanied by the applicable fee.
- (3) If such an appeal is made by someone other than the person against whom the decision has been made the specific appeal must be accompanied by a statement indicating the interest of the particular party in that decision or steps.
- (4) The prescribed fee intended in sub-regulation (2)(e) should be paid by cheque, postal order or money order exchange in favour of the Director-General: Department of Agriculture, Forestry and Fisheries: provided that should the particular appeal be delivered by hand such amount may be paid in cash.

## **21. Address for submission of appeals**

An appeal as intended in regulation 20(1) must:

- (a) When sent by post, be addressed to the Director-General: Department of Agriculture, Forestry and Fisheries; Private Bag X343, Pretoria, 0001; and
- (b) When delivered by hand, be delivered to the Director-General: Department of Agriculture, Forestry and Fisheries; Agriculture Place, 20 Beatrix Street, Pretoria.

## **22. Offences**

Anyone who refuses or omits to comply with the provisions of the Regulations is guilty of an offence and on proof of guilt liable to a fine or imprisonment.

## **23. Payment of fees**

- (1) The postal and delivery costs of an application or article submitted in terms of these regulations must be paid by the sender.
- (2) Monies payable in terms of these regulations must be paid by cheque, postal order or money order in favour of the Director-General: Department of Agriculture, Forestry and Fisheries; *[sic]* Provided that if such monies are delivered by hand, they may be paid in cash.
- (3) Monies paid in terms of these regulations, except in terms of Section 6 of the Act, are not refundable.

## **24. Address for submission of documents**

An application or item or anything connected therewith that in terms of these regulations needs to be submitted to the Registrar, must:

- (a) When sent by post, be addressed to the Registrar: Act No. 36 of 1947, Private Bag X343, Pretoria, 0001; and
- (b) When sent by rail or delivered by hand, be addressed to or delivered to the Registrar: Act No. 36 of 1947, Agriculture Place, 20 Beatrix Street, Pretoria.

## **25. Repeal of regulations**

The undermentioned regulations are hereby repealed:

- (1) Government Notice R. 799 of 20 May 1977;
- (2) Government Notice R. 1651 of 26 August 1977
- (3) Government Notice R. 472 of 14 March 1980;
- (4) Government Notice R. 473 of 14 March 1980;
- (5) Government Notice R. 1449 of 1 July 1983 in as much as it refers to fertilizers; and
- (6) Government Notice R. 250 of 23 March 2007.

## **PART II REQUIREMENTS FOR FERTILIZERS**

## **26. Nitrogen fertilizers**

Prepared by:

- (1) A fertilizer that contains nitrogen as main plant nutrient may only be sold if designated and registered under a name in Column 2 of Table 1 and it meets the following requirements:
  - (a) it is chemically composed as indicated in column 3 of Table 1;
  - (b) the nitrogen content thereof meets the requirements of column 4 of Table 1;
  - (c) the relevant requirements in columns 5 and 6 of Table 1; and
  - (d) the information in column 6 of Table 1 is provided in terms of Regulation 9(3)(c).

## **27. Phosphorus fertilizers**

- (1) A fertilizer that contains phosphorus as main plant nutrient may only be sold if designated and registered under a name in Column 2 of Table 2 and it meets the following requirements:
  - (a) it is chemically composed as indicated in column 3 of Table 2;
  - (b) the phosphorus content thereof meets the requirement specified in column 4 of Table 2;
  - (c) further relevant requirements specified in column 5 of Table 2; and
  - (d) the information in column 6 of Table 2 is provided in terms of Regulation 9(3)(c).
- (2) Besides the information in column 6 of Table 2 in terms of Regulation 9(3)(c), the following additional information must be provided in the case of:
  - (a) calcium magnesium phosphate, the expression "pellet" or "powder" immediately after the name "calcium magnesium phosphate" to indicate the form in which it is sold; and
  - (b) raw phosphate, the name of the place of origin as approved by the Registrar must precede the name "raw phosphate".

## **28. Potassium fertilizers**

- (1) A fertilizer that contains potassium as main plant nutrient may only be sold if designated and registered under a name in column 2 of Table 3 and it meets the following requirements:
  - (a) it is chemically composed as indicated in column 3 of Table 3;
  - (b) the potassium content thereof meets the requirements of column 4 of Table 3;

- (c) further relevant requirements specified in column 5 of Table 3; and
- (d) the information in column 6 of Table 3 is provided in terms of Regulation 9(3)(c).

**29. Fertilizers that largely contain calcium, magnesium and sulphur as plant nutrients**

- (1) A fertilizer that contains mainly calcium, magnesium or sulphur as plant nutrients may only be sold if designated and registered under a name in column 2 of Table 4 and it meets the following requirements:
  - (a) it is chemically composed as indicated in column 3 of Table 4;
  - (b) the nutrient content thereof is specified against each name in column 4 of Table 4;
  - (c) further relevant requirements specified in column 5 of Table 4; and
  - (d) the information in column 6 of Table 4 is provided in terms of Regulation 9(3)(c).

**30. Chemically compounded solid fertilizer or a fertilizer mixture that contains nitrogen, phosphorus or potassium fertilizers**

- (1) A fertilizer that is manufactured by mixing different components and that contains more than one of the plant nutrients nitrogen, phosphorus or potassium may only be sold if approved and registered under a name approved by the Registrar and it meets the following requirements:
  - (a) the requirements as specified in columns 2 to 7 of Table 5;
  - (b) the information in columns 8, 9 and 10 in Table 5 is provided in terms of Regulation 9(3)(c);
  - (c) where applicable, the following expression must appear together with the name of the fertilizer: provided that an abbreviation may be used in place of the wording:

WORDING	ABBREVIATION
Granule	GR
Macro granule	SK/ SG
Micro guaranteed analysis granule	MK/ MG
Powder	P
Crystal	C
Suspension	SP
Nitro-phosphate suspension	NSP

WORDING	ABBREVIATION
Solution	OPL/SOL
Chloride	CI Laag/ CI Low
Water soluble	WO/ WS
Clear solution	HO / CS

- (d) where applicable the fertilizer must meet the requirements of the Explosives Act of 2003 (Act No. 15 of 2003) and the regulations issued in terms thereof; and
  - (e) the constituents thereof must not segregate visibly after manufacture.
- (2) A mixed fertilizer shall only be registered and sold as a low Chloride fertilizer where, in the case of fertilizer mixture, the sum of the total plant nutrients is:
- (a) less than 200 g/kg and the Chloride may not be more than 20 g/kg;
  - (b) between 200 g/kg and 290 g/kg and the Chloride content may not be more than 25 g/kg;
  - (c) between 290 g/kg and 390 g/kg and the Chloride content may not be more than 30 g/kg; and
  - (d) higher than 390 g/kg and the Chloride content may not be more than 35 g/kg.

### 31. Liquid/ fluid fertilizers

- (1) A fertilizer manufactured in a liquid/ fluid form that contains more than one of the nutrients nitrogen, phosphorus and potassium may only be sold if approved and registered under a name approved by the Registrar and it meets the following requirements:
- (a) the requirements of columns 2 to 7 of Table 6;
  - (b) the information in columns 8, 9 and 10 is provided in terms of Regulation 9(3)(c);
  - (c) where applicable, the expressions given in Regulation 31(1)(d) are given together with the name of the fertilizer; and
  - (d) the nutrient content is given on a mass: mass basis. It may also be given on a mass: volume basis with specific gravity at 20°C.

### 32. Micro-element fertilizers

- (1) Micro-elements as described in Table 7 may only be sold if registered under a name in column 2 of Table 7 and it meets the following requirements:

- (a) the minimum plant nutrient concentration is as specified against each name in column 3 of Table 7;
- (b) other requirements specified in column 3 of Table 7; and
- (c) the information in column 4 is provided in terms of Regulation 9(3)(c): provided that in the case of organic complexing agents the abbreviation given in Table 15 may be used.

### **33. Micro-element mixtures**

- (1) A fertilizer consisting of a mixture of micro-elements may only be sold if registered and it meets the following requirements:
  - (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.

### **34. Addition of macro- and micro-elements**

- (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-nutrients 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.

### **35. Compost**

- (1) A compost as defined in Regulation 1 may only be sold if registered and it meets the following requirements:
  - (a) it is sold in containers and must be fine enough for one hundred per cent thereof to pass through a 12 mm standard sieve;
  - (b) it is a household and garden fertilizer as intended in Regulation 1. *[sic]*
  - (c) the ash content thereof does not exceed 670 g/kg on a dry matter basis;
  - (d) the moisture content does not exceed 400 g/kg;
  - (e) it does not contain any visibly undecomposed organic or other foreign material; and
  - (f) at least 80% of seeds that are planted under controlled conditions germinate normally and exhibit normal growth when planted in a growth medium as prescribed by the holder of the registration or manufacturer of such fertilizer.

### **36. Municipal compost**

- (1) A municipal compost that consists of urban waste may only be sold if registered and it meets the following requirements:
  - (a) it meets the requirements set out in Regulation 35(1)(a) to (f); and
  - (b) no macro- or micro-element is added to a municipal compost without the written approval of the Registrar.

### **37. Sewage sludge**

- (1) A sewage sludge 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 sludge of the Department of Water Affairs' [sic]
- (b) the requirements for total inorganic content as given in Table 12;. [sic]
- (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 per 10 g dry sludge
  - (iii) Maximum 0 *Salmonella* organisms per 10 g dry sludge
  - (iv) Maximum 1000 *Faecal coliform* per 10 g dry sludge immediately after treatment (disinfection / sterilisation)
- (2) No macro- or micro-elements may be added to the sewage sludge without the written approval of the Registrar.

### **38. Mixture of municipal compost and sewage sludge**

- (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 & Environmental Affairs' requirements for sewage sludge;
  - (b) the requirements for total inorganic content as given in Table 12;. [sic]
  - (c) the requirements of Regulation 35(1)(a) to (f); and
  - (d) it must be certified to comply with the following quality requirements; [sic]
    - (i) Stabilised - should not cause odour nuisances of fly-breeding;
    - (ii) Contains no viable *Ascaris* ova per 10g dry sludge;
    - (iii) Maximum 0 *salmonella* organisms per 10g dry sludge; and
    - (iv) Maximum 1000 *Faecal coliform* per 10g dry sludge immediately after treatment (disinfection/strilisation [sic])

- (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.

#### **39. Composted poultry manure, kraal manure and other manures**

- (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.

#### **40. Bat manure**

- (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.

#### **41. Guano, carcass, hoof, horn and bone meal**

- (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.

#### **42. Organic or enriched organic fertilizer mixtures**

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

#### **43. Micro-elements in organic fertilizers and enriched organic fertilizer mixtures**

- (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
  - (b) the micro-element content must meet the solubility criteria specified in Table 7.

#### **44. Liming materials**

- (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. *[sic]*
  - (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.
  - (c) 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.
  - (d) 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.

#### 45. Custom mixes

- (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 of 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;
  - (c) the composition/nutrients, as well as the purpose for which it is needed;  
*(Publisher's note – Duplication of numbering as per Gazette No. 35666)*
  - (d) registration details of all raw materials;
  - (e) registration details of all the sources of the raw materials
  - (f) consent letter (s) from the supplier of the all the raw materials
  - (e) the quantity mixed; and  
*(Publisher's note – Duplication of numbering as per Gazette No. 35666)*
  - (f) the signature of and date on which the qualified person on whose behalf the custom mix was prepared, submitted a request.  
*(Publisher's note – Duplication of numbering as per Gazette No. 35666)*
- (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 public sale";
  - (g) the name of the product or for which purpose the product is intended;  
*(Publisher's note – Incorrect numbering as per Gazette No. 35666)*

- (h) the plant nutrients present in such fertilizer

*(Publisher's note – Incorrect numbering as per Gazette No. 35666)*

- (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.

#### **46. Permissible deviations in components / nutrients / micro-element contents**

- (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).

#### **47. Harmful elements**

- (1) All fertilizers must meet the requirements as specified in Table 12. The levels of harmful elements may not exceed the limit indicated in Table 12.

- (2) Each application must be accompanied by a certificate of analysis on the harmful elements contained in such fertilizer.
- (3) The Registrar may request the applicant to conduct further analysis of harmful elements at any time after the registration of any such fertilizers.

## **ANNEXURE A**

### **APPLICATION FOR THE REGISTRATION OF A FERTILIZER**

*(Please note that a copy of the above form will be provided upon request. Kindly refer to our website for our contact details.)*

## **ANNEXURE B**

**TABLE 1:** NITROGEN FERTILIZERS

**TABLE 2:** PHOSPHORUS FERTILIZERS

**TABLE 3:** POTASSIUM FERTILIZERS

**TABLE 4:** FERTILIZERS THAT CONTAIN MAINLY CALCIUM, MAGNESIUM OR SULPHUR

**TABLE 5:** SOLID FERTILIZER MIXTURES CONTAINING TWO OR MORE MAIN PLANT NUTRIENTS

**TABLE 6:** LIQUID FERTILIZER MIXTURES CONTAINING 2 OR MORE MAIN PLANT NUTRIENTS

**TABLE 7:** REQUIREMENTS FOR MICRO-NUTRIENT COMPOUNDS THAT ONLY CONTAIN ONE ELEMENT

**TABLE 8:** MICRO-ELEMENT MIXTURES: MINIMUM CONTENT PER ELEMENT IN g/kg

**TABLE 9:** FERTILIZERS THAT CONTAIN BOTH MICRO- AS WELL AS MACRO-ELEMENTS: MINIMUM CONTENT PER MICRO-ELEMENT IN g/kg

**TABLE 10:** APPROVED ORGANIC CHELATING AGENTS

**TABLE 11:** REQUIREMENTS FOR URBAN WASTE

**TABLE 12:** MAXIMUM LEVELS OF POTENTIALLY HARMFUL ELEMENTS PERMITTED IN FERTILIZER PRODUCTS

**TABLE 13:** REQUIREMENTS FOR GUANO AND OTHER PRODUCTS DERIVED FROM ANIMAL

Prepared by:



## ORIGIN

**TABLE 14:** ENRICHED ORGANIC AND ORGANIC FERTILIZER

**TABLE 15:** REQUIREMENTS FOR AGRICULTURAL LIME MATERIAL (OVEN DRY BASIS)

**TABLE 16:** PERMISSIBLE DEVIATIONS IN MAIN AND SECONDARY ELEMENTS IN INORGANIC FERTILIZER MIXTURES

**TABLE 17:** PERMISSIBLE DEVIATIONS IN MAIN AND SECONDARY ELEMENTS IN CHEMICALLY COMPOUNDED FERTILIZERS

**TABLE 18:** PERMISSIBLE DEVIATIONS IN ADDED MICRO-ELEMENTS IN FERTILIZER MIXTURES

**TABLE 19:** FERTILIZERS IN CONTAINERS

**TABLE 20:** LOOSE FERTILIZERS

**TABLE 21:** LIQUID FERTILIZERS

*(Please note that copies of the above Tables will be provided upon request. Kindly refer to our website for our contact details.)*

### ANNEXURE C APPROVED PORTS OF ENTRY

Land boarder [sic] posts	International Airports	International harbours	Inland
Beitbridge	Cape Town	Cape Town	Johannesburg
Caledonspoort	Durban	Durban	Kimberly [sic]
Ficksburg	Gateway (Polokwane)	East London	Pretoria
Golela	OR Tambo	Mossel Bay	Mmabatho
Groblersburg	Lanseria	Port Elizabeth	Pietermaritzburg
Kapfontein	Port Elizabeth	Richards Bay	Upington
Jeppesreef	Richards Bay	Saldanha Bay	Bloemfontein
Lebombo	Upington		Stellenbosch
Mahamba	Bloemfontein		Germiston
Mananga	Mafikeng		
Maseru bridge			
Nakop			
Nerston			

Prepared by:

Land boarder [sic] posts	International Airports	International harbours	Inland
Oshoek			
Qachas' Nek			
Ramatlabana			
Skilpadsnek			
Van Rooyenshek			
Vioolsdrif			

#### ANNEXURE D

#### CERTIFICATE IN RESPECT OF TAKING SAMPLES BY ANALYSTS

*(Please note that a copy of the above form will be provided upon request. Kindly refer to our website for our contact details.)*

#### ANNEXURE E

#### SAMPLING OF FERTILIZERS

##### A. General instructions for the taking of samples

1. Samples for the purpose of the Act must only be taken by the Registrar or his delegate and any authorised person in terms of the Act.
2. In the case of fertilizer in containers, only unopened containers must be selected for the purpose of sampling.
3. The sample must be taken and prepared as quickly as possible taking precautions to ensure that it remains representative of the sampled portion. Instruments, surfaces and containers used in sampling must be clean and dry.
4. No sample must be drawn from any part of the sampled portion, which appears to be damaged.
5. When lumps are naturally present in a fertilizer, they must be broken up and mixed with the quantity from which a sample is to be drawn.
6. An inspector who intends to take a sample on premises must:
  - (a) satisfy himself that the conditions in which the fertilizer is stored are not such as might cause undue deterioration of the said fertilizer and that the fertilizer appears not to have been contaminated by any other material;
  - (b) where he has reasonable cause to believe that fertilizer in containers is only part of an original consignment, select the number of containers to be sampled as if not less than the whole

consignment, were still present, except that sampling shall not take place if fewer than the minimum number of containers prescribed in Table 19 of these Regulations shall be available.

7. The sampling apparatus must be made of materials which cannot affect the characteristics of the fertilizer to be sampled.
8. In the case of a sampling spear its dimensions shall be appropriate to the characteristics of the sampled portion in all respects including dimensions of the container and particle size of the fertilizer.

A shuttered sampling spear, consisting of two metal tubes, one of which is a close sliding fit, inside the other, shall be used.

The inner diameter shall be at least 15 mm. Down one side of the outer tube, a series of slots is cut with a corresponding series of slots cut on one side of the inner tube. The width of the slots shall be at least 12 mm and the combined length of the slots must exceed 75% of the total sampling length of the spear.

When sampling, the spear is inserted diagonally through the whole width of the container, with the slots closed. The inner tube is then rotated to open the slots and the spear tapped and worked about to encourage material to flow through the slots. The inner tube is then rotated to close the slots and the spear withdrawn. The sample is emptied into a suitable container.

9. Notwithstanding the provisions of these Regulations, a sampling spear must not be used if, prior to the taking of a sample, objection is raised thereto by the manufacturer on the grounds that the material is unsuitable.
10. Mechanical apparatus may be used for the sampling of moving fertilizers, if the apparatus is capable of taking samples right across the flow of the product.
11. Apparatus designed to divide the sample into approximately equal parts may be used for taking incremental samples and for the preparation of reduced and final samples.
12. A sample taken in accordance with the methods described in Paragraph C must be deemed to be representative of the sampled portion.
13. When a sample is taken at a plant or elsewhere than a plant in terms of Section 15(1) of the Act, the person in charge of the undertaking or an officer as intended and authorised in terms of Section 2(2)(a) of the Act shall take such sample using the methods described in part IV hereof: Provided that should the holder of the registration, his employee or agent sign the certificate relating to the sample taken, the method of sampling cannot become the subject of dispute.

## **B. Quantitative requirements**

Prepared by:

## 1. Sampled portion

Sample portion must be identified and specified on site in conjunction with manufacturer/supplier. Such sampled portion must be such that each of its constituent parts can be sampled in accordance with the requirements of this Regulation.

## 2. Incremental sample

The incremental samples must be selected in the following manner:

- (a) in the case of solid fertilizers in containers -
  - (i) where the content of each of the containers in the sampled portion is more than 1 kg in mass the number of containers must be selected in accordance with Table 20 of these Regulations;
  - (ii) where the content of each of the containers in the sampled portion does not exceed 1 kg in mass, the number of containers must be selected in accordance with Table 19 of these Regulations, except that the number selected shall not be less than four;
- (b) in the case of loose solid fertilizers the number of incremental samples must be selected in accordance with Table 20 of these Regulations;
- (c) in the case of fluid fertilizer -
  - (i) where each container in the sampled portion contains not more than 100 litres the number of containers must be selected in accordance with Table 21 of these Regulations;
  - (ii) where each container in the sampled portion contains more than 100 litres an incremental sample must be drawn from each container.

## 3. Composite sample

The appropriate mass or volume of the composite sample must not be less than the following:

- (a) solid fertilizers in container -
  - (i) containers of more than 1 kg 3 kg (6 kg for bulk blends)
  - (ii) containers not exceeding 1 kg 3 kg

(b) loose solid fertilizers 3 kg (6 kg for bulk blends)

(c) fluid fertilizers -

(i) containers exceeding 250 000 litres 5 litres

(ii) containers exceeding 1 litre but not exceeding 250 000 litres 4 litres

(iii) containers not exceeding 1 litre 2 litres

#### 4. Final sample (i.e. identical sub-samples)

The appropriate mass or volume of each final sample must not be less than the following:

(a) solid fertilizers 1 000 g (2 000 g for bulk blends);

(b) fluid fertilizers 500 cm<sup>3</sup>

### C. Taking and preparation of samples

#### 1. Incremental samples

Incremental samples of approximately equal sizes must be taken at random throughout the whole sampled portion in the following manner:

(a) in the case of solid fertilizers in containers

(i) having selected the required number of containers for sampling in accordance with paragraph B 2(a), part of the content of each selected container must be taken as the incremental sample, except in the case of material to which subparagraph (iv) of this paragraph applies;

(ii) where necessary, each selected container must be emptied and worked up with a shovel separately and one shovelful taken as the incremental sample;

(iii) when the material is of a suitable nature the incremental sample may be taken from each selected container by means of a sampling spear or by divider;

(iv) when the material is so packed or of such a nature that a shovel or spear or divider cannot be used, or where the content of the container does not exceed 1 kg, the whole container shall be taken as the incremental sample;

- (v) where the fertilizer is in a coarse or lumpy condition incremental samples must be taken in accordance with subparagraph (ii) or (iv) of this paragraph where appropriate. These must be crushed immediately and the whole sample passed through a standard sieve with 5,6 mm apertures;
  - (vi) where the fertilizer consists of bulky material, uneven in character and likely to get matted together, each selected package must be emptied separately and the matted portions be broken up and the whole of the contents of each package must be thoroughly mixed. The incremental samples must then be taken in accordance with subparagraph (ii) or (iv) of this paragraph where appropriate;
- (b) in the case of loose solid fertilizers -
- (i) sampling in the stationary state is not recommended;
  - (ii) when sampling is being carried out while the material comprising the sampled portion is in motion, the incremental samples shall be taken from the approximately equal parts as required in Table 20 of these Regulations at equal time intervals;
  - (iii) where the fertilizer is in a coarse or lumpy condition, or consists of bulky material, uneven in character and likely to get matted together, the incremental samples must be taken in accordance with the relevant provisions of paragraph C1(a)(v) or (vi), where appropriate;
- (c) in the case of fluid fertilizers in containers each containing not more than 100 litres, the number of containers to be selected must be taken in accordance with Table 21 of these Regulations and -
- (i) where each container contains not more than 1 litre the entire contents of the selected containers must be transferred into a clean dry vessel of suitable material;
  - (ii) where each container contains more than 1 litre and not more than 100 litres the selected containers shall be well shaken or the contents agitated or otherwise treated to ensure uniformity. An approximately equal proportion of fluid shall then be taken immediately from each of the selected containers and transferred into a clean dry vessel of suitable material;
- (d) in the case of fluid fertilizers in containers each containing more than 100 litres -
- (i) when a consignment is being withdrawn from the container and there is a tap in the outlet pipe from which it is suitable to draw a sample, a quantity of not less than 4 litres must be drawn from the tap (after first withdrawing sufficient to remove any residues in the pipe)

into a clean dry vessel of suitable material made up of portions not less than 0,5 litres and of approximately equal size taken at regular intervals;

- (ii) if the liquid is homogeneous, about 1 litre must be drawn from a convenient outlet in the container (after first withdrawing sufficient to remove any residues in the outlet) into a clean dry vessel of suitable material;
  - (iii) if the liquid is not homogeneous, the contents must be well stirred or otherwise agitated and sampling must then proceed as in subparagraph (ii),
  - (iv) if it is not possible to make the liquid homogenous, in the manner described in subparagraph (iii), or if the inspector considers that the procedure in subparagraphs (d), (ii) and (iii) may not be appropriate, the contents must be sampled by using the modified Indiana sampler. The appropriate process must be repeated until a quantity of not less than 4 litres has been withdrawn; or
  - (v) where a sampled portion consists of two or more containers, incremental samples of approximately equal size must be taken from each, drawn in the manner described in subparagraphs (d), (ii), (iii) or (iv), where appropriate, and must be placed in a clean dry vessel of suitable material.
- (e) If increments are taken by sampling spear, not less than two cores per sampling point must be taken to give not less than 12 cores.

## **2. Composite sample**

The incremental samples must be combined and thoroughly mixed to form a single composite sample. In the case of solid fertilizers the material in the composite sample must be carefully mixed to obtain a homogenised sample. Any lumps inconsistent with the nature of the material must be broken up (if need be by separating them out and returning them to be the composite sample).

## **3. Reduced sample**

- (a) In the case of solid fertilizers the composite sample must, if necessary, be reduced to not less than given in paragraph B in the following manner:
- (i) the material must be heaped to form a "cone", which must then be flattened and quartered. Two diagonally opposite quarters must be rejected and the remainder must then be mixed and the quartering and rejection contained as necessary; or
  - (ii) the reduction method effected by the use of a mechanical device.

- (b) In the case of fluid fertilizers, the composite sample consists of approximately 2 litre may be taken as the reduced sample. In all other cases the composite sample must be thoroughly mixed and a quantity of at least 2 litres transferred immediately into a clean dry vessel of suitable material.

#### **4. Final samples**

The final samples must be obtained in the following manner:

- (a) in the case of solid fertilizers, the reduced sample or where necessary the composite sample must be thoroughly mixed and divided into three equal parts, and each part placed in an appropriate airtight container;
- (b) in the case of fluid fertilizers the reduced sample or where necessary the composite sample must be thoroughly mixed and immediately divided into approximately equal parts by pouring successive portions into appropriate airtight containers. The containers used must be such that the characteristics of the fertilizer at the time of sampling are preserved. The final sample must be kept at temperatures below 25 degrees Celsius.

#### **D. Marking, sealing and fastening up of the final sample**

1. Each container of a final sample must be secured and sealed by the person taking the sample so that the container cannot be opened without breaking the seal.
2. A label must be attached to the container and must be marked with the following particulars, which must not be hidden by the seal:
  - (a) name of the inspector as well as the department to which he belongs;
  - (b) identification mark given by the inspector to the sample;
  - (c) place of sampling;
  - (d) date of sampling' *[sic]*;
  - (e) name of the material; and
  - (f) identification code, batch reference number or consignment identification of the material sampled, where readily available.