SRI LANKA STANDARD 1029 : PART 2: 1995

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SPECIFICATION FOR FERTILIZER MIXTURES
PART 2 : RUBBER

SRI LANKA STANDARDS INSTITUTION

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Gr. 4

SRI LANKA STANDARDS INSTITUTION
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Colombo 3,
Sri Lanka.

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This standard does not purport to include all the necessary provisions of a contract.

Sri Lanka Standard
SPECIFICATION FOR FERTILIZER MIXTURES
Part 2 : Rubber

FOREWORD

This standard was approved by the Sectoral Committee on Chemicals and Chemical Technology and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 1995-08-24.

Guidelines for the determination of compliance of a lot with the requirements of this standard based on statistical sampling and inspection are given in Appendix A.

For the purpose of deciding whether a particular requirement of this specification complied with, the final value, observed or calculated, expressing the result of a test or an analysis, shall be rounded off in accordance with CS 102. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this specification.

In addition to the recommended fertilizer mixtures, Rubber Research Institute also recommends straight fertilizer for mature rubber plantations in the estate sector based on soil and foliar analysis.

1 SCOPE

This specification prescribes the requirements and methods of test for fertilizer mixtures for rubber.

2 REFERENCES

CS 102 Presentation of numerical values
CS 124 Test sieves
SLS 559 Sampling of fertilizers
SLS 618 Urea
SLS 620 Ammonium sulphate
SLS 644 Potassium chloride (muriate of potash)
SLS 645 Methods of test for fertilizers
SLS 748 Ground rock phosphate
SLS 1104 Kieserite
SLS 1105 Epsom salt
SLS 1107 Potassium sulfate
SLS 1131 Ammonium phosphates

3 TYPES

Ferltilizer mixtures for rubber shall be of the following types:

3.1 R/SA 9.12.4.2 ;
3.2 R/SA 8.9.9.4 ;
3.3 R/U 15.16.7 ;
3.4 R/U 12.14.14 ;
3.5 R/SA 9.11.11 ;
3.6 R/SA 11.11.5 ;
3.7 R/YB 13.17.6.3;
3.8 R/YB 9.12.11.5; and
3.9 R/YB 13.16.16 .

NOTE

The letters in the code name denote the following:

1. R/SA - Sulfate of ammonia based rubber mixture;
2. R/U - Urea based rubber mixture; and
3. R/YB - Young budding rubber mixture.

The figures in the code name denote the nutrient content in percent by mass in the order of N, P, K and Mg.

4 REQUIREMENTS

4.1 General requirements

The material shall free from visible foreign matter.

4.2 Other requirements

4.2.1 The material shall also comply with the requirements given in Table 1, when tested in accordance with the methods given in SLS 645.

4.2.2 A tolerance of ± 5 per cent shall be permitted for all nutrients.

TABLE 1 - Requirements for fertilizer mixtures for rubber

Sl. No. (1)	Mixture (2)	Nutrient Content			
		N as N, per cent by mass (3)	P as P_2O_5 per cent by mass (4)	K as K_2O per cent by mass (5)	Mg as MgO per cent by mass (6)
i)	R/SA 9. 12. 4. 2	9	12	4	2
ii)	R/SA 8. 9. 9. 4	8	9	9	4
iii)	R/U 15. 16. 7	15	16	7	-
iv)	R/U 12. 14. 14	12	14	14	-
v)	R/SA 9. 11. 11	9	11	11	-
vi)	R/SA 11. 11. 5	11	11	5	-
vii)	R/YB 13. 17. 6. 3	13	17	6	3
viii)	R/YB 9. 12. 11. 4	9	12	11	5
ix)	R/YB 13. 16. 16	13	16	16	-

NOTES

1. *For mixtures R/SA 9.12.4.2, R/SA 8.9.9.4, R/SA 9.11.11, R/SA 11.11.5, R/YB 13.17.6.3, R/YB 9.12.11.5 and R/YB 13.16.16 recommended nitrogen source is sulfate of ammonia conforming to SLS 620.*

2. *For mixtures R/U 15.16.7 and R/U 12.14.14 recommended nitrogen source is urea conforming to SLS 618.*

3. *For all mixtures for immature rubber the recommended phosphorus source is 100 per cent imported rock phosphate and for mature rubber the recommended phosphorus source is 100 per cent Eppawela rock phosphate conforming to SLS 748.*

4. *For mixtures R/YB 13.17.6.3 and R/YB 9.12.11.5 and R/YB 13.16.16 recommended posphorous source is diammonium phosphate conforming to SLS 1131.*

5. *For mixtures R/SA 9.12.4.2, R/SA 8.9.9.4, R/U 15.16.7, R/U 12.14.14, R/SA 9.11.11 and R/SA 11.11.5 recommended potassium source is potassium chloride (muriate of potash) conforming to SLS 644.*

6. *For mixtures R/YB 13.17.6.3, R/YB 9.12.11.5 and R/YB 13.16.16 recommended potassium source is sulfate of potash conforming to SLS 1107.*

7. *For mixtures R/SA 9.12.4.2 and R/SA 8.9.9.4 recommended magnesium source is kieserite conforming to SLS 1104.*

8. For mixtures R/YB 13.17.6.3 and R/YB 9.12.11.5 recommended magnesium source is epsom salt conforming to SLS 1105.

5 PACKAGING AND MARKING

5.1 Packaging

The material shall be supplied in sound, strong and moisture proof packages or containers. Suitable packages include polypropylene or jute bags with an inner lining of low density polyethylene having a minimum thickness of 37.5 um or any other material having barrier properties superior or equal to low density polyethylene of 37.5 um thickness. The material may also be supplied in bulk containers as agreed to between the purchaser and the supplier.

5.2 Marking

5.2.1 The following shall be legibly and indelibly marked or labelled on each package or container:

a) Name and type of the fertilizer mixture, in capital letters;
b) Phosphorous source used in the case of following mixtures
   R/SA 9.12.4.2
   R/SA 8.9.9.4
   R/U 15.16.7
   R/U 12.14.14
   R/SA 9.11.11
   R/SA 11.11.5;
c) Name and address of the manufacturer;
c) Registered trade mark, if any;
e) Net mass in kilograms;
f) Batch or code number;
h) Date or month and year of manufacture; and
h) The words *use no hooks*, in capital letters.

Note

Attention is drawn to certification marking facilities offered by the Sri Lanka Standards Institution. See the inside back cover of the standard.

5 METHODS OF TEST

Tests shall be carried out as prescribed in SLS 645.

APPENDIX A
COMPLIANCE OF A LOT

The sampling scheme given in this appendix should be applied where compliance of a lot to the requirements of this standard is to be assessed based on statistical sampling and inspection.

Where compliance with this standard is to be assured based on manufacturer's control systems coupled with type testing and check tests or any other procedure, appropriate schemes of sampling and inspection should be adopted.

A.1 SCALE OF SAMPLING

A.1.1 The sampling shall be carried out as prescribed in SLS 559.

A.2 NUMBER OF TESTS

A.2.1 Each package selected as prescribed in SLS 559 shall be inspected for packaging and marking requirements.

A.2.2 Tests for requirements specified in 4 shall be carried out on the composite sample prepared as in SLS 559.

A.3 CRITERIA FOR CONFORMITY

A lot shall be declared as conforming to the requirements of this specification, if the following conditions are satisfied:

A.3.1 Each package inspected as in A.2.1 satisfies the relevant requirements.

A.3.2 The test results on the composite sample when tested as in A.2.2 satisfy the relevant requirements.

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*

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SRI LANKA STANDARDS INSTITUTION

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The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

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