REPUBLIC OF SOUTH AFRICA

REPUBLIEK VAN SUID-AFRIKA

Government Gazette
Staatskoerant

Regulation Gazette **No. 6049** *Regulasiekoerant*

Vol. 389 PRETORIA, 21 NOVEMBER 1997 No. 18439

PROCLAMATION

TRUTH AND RECONCILIATION COMMISSION: COMMITTEE ON AMNESTY

No. R. 73, 1997

PROCLAMATION UNDER SECTION 20 (1) OF THE PROMOTION OF NATIONAL UNITY AND RECONCILIATION ACT, 1995 (ACT No. 34 OF 1995)

Notice is hereby given that amnesty under section 20 (1) of the Promotion of National Unity and Reconciliation Act, 1995 (Act No. 34 of 1995), was granted—

(1) on 15 September 1997 to **Jan Anton Niewoudt** (Identity Number 560403 5061 088) in respect of the giving of military training for offensive action within KwaZulu-Natal to a group of Inkatha Freedom Party members during or about the middle of 1986 at or near Hippo Base, Caprivi, Namibia; and

(2) on 25 September 1997 to **Pieter Johan Theron** (Identity Number 510818 5083 009) in respect of the bombing of public cloak rooms and the Salt River Community House during or about August or September 1987, in the Districts of Strand and Salt River, Cape Town.

Committee on Amnesty

PROKLAMASIE

KOMMMISSIE VIR WAARHEID EN VERSOENING: KOMITEE OOR AMNESTIE

No. R. 73, 1997

PROKLAMASIE KRAGTENS ARTIKEL 20 (1) VAN DIE WET OP DIE BEVORDERING VAN NASIONALE EENHEID EN VERSOENING, 1995 (WET No. 34 VAN 1995)

Kennis word hiermee gegee dat amnestie kragtens artikel 20 (1) van die Wet op die Bevordering van Nasionale Eenheid en Versoening, 1995 (Wet No. 34 van 1995), verleen is—

(1) op 15 September 1997 aan **Jan Anton Niewoudt** (Identiteitsnommer 560403 5061 088) ten opsigte van die verskaffing van militêre opleiding en lede van die Inkatha Vryheidsparty vir offensiewe doeleindes binne KwaZulu-Natal gedurende of omtrent die middel van 1986 te of naby Hippo Basis, Caprivi, Namibië; en

(2) op 25 September 1997 aan **Pieter Johan Theron** (Identiteitsnommer 510818 5083 009) ten opsigte van die bomaanvalle op openbare kleedkamers en die Soutrivier Gemeenskapsaal gedurende of omtrent Augustus of September 1987, in die distrikte Strand en Soutrivier, Kaapstad.

Komitee oor Amnestie

PROCLAMATION

TRUTH AND RECONCILIATION COMMISSION: COMMITTEE ON AMNESTY

No. R. 74, 1997

PROCLAMATION UNDER SECTION 20 (1) OF THE PROMOTION OF NATIONAL UNITY AND RECONCILIATION ACT, 1995 (ACT No. 34 OF 1995)

Notice is hereby given that amnesty under section 20 (1) of the Promotion of National Unity and Reconciliation Act, 1995 (Act No. 34 of 1995), was granted—

(1) on 20 October 1997 to **RIAZ SALOOJEE** (Identity Number 621113 5866 082) in respect of the storage and distribution of weaponry to ANC structures in KwaZulu-Natal, PWV, Western Cape and Eastern Cape, during the period May 1991 to 1994;

(2) on 22 October 1997 to—

(a) **MANDLENKOSI TOMMY PHOSWA** (Identity Number 480425 5466 089); and

(b) **MAFUKA ANTHONY NZIMANDE** (born on 16 June 1960),

in respect of—

(a) the murder of—

(i) Anton Mahawu Shezi;

(ii) Muntu Mkhize;

(iii) Mbovane Nxele;

(iv) Felaphi Dlamini;

(v) Bheka Phoswa;

(vi) Mdutswa Madlala;

(vii) Namowakhe Jili; and

(viii) Dumisani Mthembu; and

(b) the attempted murder of—

(i) Sengiphelile Sithole; and

(ii) Thulebona Poswa,

on 26 September 1992 near the Town of Richmond in the KwaZulu-Natal Midlands; and

(3) on 27 October 1997 to—

(a) **LEBOHANG JOHN MAY** (Identity Number 680902 5283 084); and

(b) **VELILE WILLIAM MXHOSANA** (Identity Number 721006 5528 083),

in respect of—

(i) the attempted murder of Constable Makoloi;

(ii) malicious damage to property;

(iii) illegal possession of machine guns in contravention of section 32 (1) (a) of the Arms and Ammunition Act, 1969 (Act No. 75 of 1969);

(iv) illegal possession of hand-grenades in contravention of section 32 (1) (b) of the Arms and Ammunition Act, 1969 (Act No. 75 of 1969); and

(v) illegal possession of machine gun ammunition in contravention of section (32) (1) (e) of the Arms and Ammunition Act, 1969 (Act No. 75 of 1969),

committed on or about 14 December 1991 in the District of Bloemfontein.

Committee on Amnesty

PROKLAMASIE

KOMMISSIE VIR WAARHEID EN VERSOENING: KOMITEE OOR AMNESTIE

No. R. 74, 1997

PROKLAMASIE KRAGTENS ARTIKEL 20 (1) VAN DIE WET OP DIE BEVORDERING VAN NASIONALE EENHEID EN VERSOENING, 1995 (WET No. 34 VAN 1995)

Kennis word hiermee gegee dat amnestie kragtens artikel 20 (1) van die Wet op die Bevordering van Nasionale Eenheid en Versoening, 1995 (Wet No. 34 van 1995)—

(1) op 15 September 1997 verleen is aan **RIAZ SALOJEE** (Identiteitsnommer 621113 5866 082) ten opsigte van die storing en verspreiding van wapens aan strukture van die ANC in KwaZulu-Natal, die PWV, die Wes-Kaap en die Oos-Kaap gedurende die tydperk Mei 1991 tot 1994;

(2) op 22 Oktober 1997 verleen is aan—

(a) **MANDLENKOSI TOMMY PHOSWA** (Identiteitsnommer 480425 5466 089); en

(b) **MAFUKA ANTHONY NZIMANDE** (gebore op 16 Junie 1960),

ten opsigte van—

(a) die moord op—

(i) Anton Mahawu Shezi;

(ii) Muntu Mkhize;

(iii) Mbovane Nxele;

(iv) Felaphi Dlamini;

(v) Bheka Phoswa;

(vi) Mdutswa Madlala;

(vii) Namowakhe Jili; en

(viii) Dumisani Mthembu; en

(b) die poging tot moord op—

(i) Sengiphelile Sithole; en

(ii) Thulebona Poswa,

op 26 September 1992 naby die dorp Richmond in die KwaZulu-Natal Midlande; en

(3) op 27 Oktober 1997 verleen is aan—

(a) **LEBOHANG JOHN MAY** (Identiteitsnommer 680902 5283 084); en

(b) **VELILE WILLIAM MXHOSANA** (Identiteitsnommer 721006 5528 083),

ten opsigte van—

(i) die poging tot moord op Konstabel Makoloi;

(ii) opsetlike saakbeskadiging;

(iii) onwettige besit van masjiengewere soos bedoel in artikel 32 (1) (a) van die Wet op Wapens en Ammunisie, 1969 (Wet No. 75 van 1969);

(iv) onwettige besit van handgranate soos bedoel in artikel 32 (1) (b) van die Wet op Wapens en Ammunisie, 1969 (Wet No. 75 van 1969); en

(v) onwettige besit van masjiengeweerammunisie soos bedoel in artikel 32 (1) (e) van die Wet op Wapens en Ammunisie, 1969 (Wet No. 75 van 1969),

gepleeg op of omtrent 14 Desember 1991 in die distrik Bloemfontein.

Komitee oor Amnestie

GOVERNMENT NOTICES
GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF HEALTH
DEPARTEMENT VAN GESONDHEID

No. R. 1555 **21 November 1997**

FOODSTUFFS, COSMETICS AND DISINFECTANTS ACT, 1972 (ACT No. 54 OF 1972)

REGULATIONS RELATING TO MILK AND DAIRY PRODUCTS

The Minister of Health has, in terms of section 15 (1) of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), made the regulations in the Schedule.

SCHEDULE

Definitions

1. In these regulations any expression to which a meaning has been assigned in the Act shall bear such meaning and, unless inconsistent with the context—

"butter" means the product the fat of which consists exclusively of butter fat and the composition of which complies with the fat-content requirements prescribed in the Regulations relating to Dairy Products and Imitation Dairy Products (Government Notice No. R. 2581 of 20 November 1987, as amended) made under the Agricultural Products Standards Act, 1990 (Act No. 119 of 1990) (hereinafter referred to as the Dairy and Imitation Dairy Products Regulations);

"buttermilk" means the milky by-product of the butter-making process;

"cheese" means the product that is obtained from a coagulum of—

(a) milk or milk constituents;
(b) cream;
(c) partly or wholly skimmed milk;
(d) reconstituted (prepared) milk;
(e) buttermilk;
(f) concentrated milk; or
(g) a combination of the above products,

by the removal of the whey, and that has undergone ripening to a greater or lesser extent and that may in addition have been further processed;

"closed container" means a clean container that is impervious to liquid, leak proof and will protect the product therein from contamination under normal conditions of storage, handling and transport;

"coliform bacteria" means rod-shaped, Gramnegative aerobic and facultatively anaerobic non-spore forming bacteria that ferment lactose, producing gas and acid in the process, by using the mediums and methods prescribed in paragraph 4 or 5 of Annex A;

"composite dairy product" means a product as defined in the Dairy and Imitation Dairy Products Regulations;

"cream" means the fluid dairy product with a fat content as prescribed by the Dairy and Imitation Dairy Products Regulations;

"culture" means a liquid or powder containing one or more acceptable selected micro-organisms used in the manufacturing of cultured buttermilk, sour cream, sour milk, yoghurt or any other type of fermented milk product;

"cultured buttermilk" means buttermilk or pasteurised or reconstituted (prepared) milk which has been inoculated with a culture;

"dairy product" means a product as defined in the Dairy and Imitation Dairy Products Regulations;

"Escherichia coli" means the organism that produces gas at 44 °C ± 0,25 °C in brilliant green 2% (m/v) bile broth and produces indole in tryptone water at the same temperature when incubated for 24 hours, when using the method described in paragraph 2 of Annex A or, alternatively, when the violet red bile MUG agar method is used, the colonies that fluoresce blue in the surrounding mediums under an ultraviolet light after incubation for 24 ± 1 hour at 30 °C;

"extraneous" means of external origin;

"food additive" means a substance as defined in the Regulations governing the Labelling and Advertising of Foodstuffs (Government Notice No. R. 2034 of 29 October 1993, as amended) (hereinafter referred to as the Labelling and Advertising of Foodstuffs Regulations);

"hermetically sealed container" means an unopened container which cannot be opened without breaking or damaging such container or a seal, adhesive label or other part of or attachment to such container and which is intended to protect its contents against the entry of micro-organisms;

"imitation dairy product" means a product as defined in the Dairy and Imitation and Dairy Products Regulations;

"milk" means the normal mammary gland secretion obtained from lactating cows of the bovine species, goats or sheep;

"milk powder" means the product obtained by the removal of water only from milk, partly skimmed milk or wholly skimmed milk, with or without food additives permitted by the Act;

"modified dairy product" means a product as defined in the Dairy and Imitation Dairy Products Regulations;

"pasteurisation" means the heat treatment, as described in Annex B, of a dairy product or an imitation dairy product so that—

(a) all vegetative pathogens are destroyed; and

(b) in the case of milk, the result of the phosphatase test described in paragraph 3 of Annex A is negative

and, if the product concerned does not undergo further processing, the cooling thereof to below 5 °C immediately after having been thus heat treated;

"presumptive test" means a test the positive result of which invites the presumption that a substance is present after which the presumption must be proven to be true by using more sophisticated and accurate test methods;

"primary dairy product" means a product as defined in the Dairy and Imitation Dairy Products Regulations;

"raw cream" means cream that has not undergone pasteurisation, sterilisation or ultra high temperature treatment;

"raw milk" means milk that has not undergone pasteurisation, sterilisation or ultra high temperature treatment;

"reconstituted (prepared) milk" means the product obtained by reconstituting milk powder with water so that it complies with all the requirements for milk as prescribed in the Dairy and Imitation Dairy Products Regulations;

"skimmed milk" means milk the fat of which has been removed to comply with the fat-content requirements prescribed in the Dairy and Imitation Dairy Products Regulations;

"skimmed milk powder" means the product obtained by the drying of skimmed milk;

"sour cream or cultured cream" means the product obtained from pasteurised cream that has been inoculated with a culture in order for it to develop certain microbial flora under controlled conditions;

"sour milk or cultured milk" means the product obtained from pasteurised milk that has been inoculated with a culture in order for it to develop certain microbial flora under controlled conditions;

"sterilisation" means the heat treatment above 100 °C, after packaging, of a dairy product or an imitation dairy product so that the product concerned will be resistant to microbiological deterioration for a period of at least 14 days if kept at a temperature of 30 °C ± 1 °C;

"the Act" means the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

"UHT" or **"ultra high temperature treatment"** means the process whereby milk or a dairy product is subjected to heat treatment above 100 °C and aseptically packaged so that the end product, after incubation for not less than 14 days at a temperature of 30 °C ± 1 °C, is free from spoilage by micro-organisms; and

"yoghurt" means the product obtained from pasteurised milk or reconstituted milk which has been inoculated with a yoghurt culture and which is allowed to ferment under controlled conditions.

Restrictions

2. No person shall use or sell any raw milk intended for further processing which—

(a) contains the following:

(i) Antibiotics or other antimicrobial substances in amounts that exceed the maximum residue levels stipulated in the Regulations governing Maximum Limits for Veterinary Medicine and Stock Remedy Residues that may be present in Foodstuffs (Government Notice No. R. 1809 of 3 July 1992, as amended) (hereinafter referred to as the Maximum Limits for Veterinary Medicines and Stock Remedy Residues Regulations) or which by virtue of a presumptive test is suspected to contain antibiotics or other antimicrobial substances in amounts that exceed such maximum residue levels;

(ii) pathogenic organisms, extraneous matter or any inflammatory product or other substance which for any reason whatsoever may render the milk unfit for human consumption;

(b) gives a positive result when subjected to the clot-on-boiling test described in paragraph 6 of Annex A;

(c) gives a standard plate count of more than 200 000 colony forming units per 1,0 mℓ when subjected to the standard plate count test described in paragraph 7 of Annex A or the dry rehydrated film method for standard colony count described in paragraph 10 of Annex A;

(d) (i) on application of the test described in paragraph 4 (4) of Annex A, exceeds the most probable number (MPN) of 10,0 coliform bacteria per 1,0 mℓ milk or, if the test for coliforms described in paragraph 11 of Annex A is used, the number of colony forming units exceeds 20 per millilitre of milk; or

(ii) on application of the modified Eijkmann test, the VRB MUG agar method, or the dry rehydrated film method described in paragraphs 2, 5 and 11, respectively, of Annex A, is found to contain any *Escherichia coli* in 0,01 mℓ of raw milk;

(e) when subjected to the standard method for counting somatic cells in bovine milk *, is found to contain an average of 500 000 or more somatic cells per 1,0 mℓ of bovine milk or an average of 750 000 or more cells per 1,0 mℓ of goat's or sheep's milk after three successive readings at intervals of at least seven days during the test period, of which shows any other signs of abnormal secretory activity of the mammary gland(s);

* The Standard Method for Counting Somatic Cells in Bovine Milk is set forth in International Dairy Federation (IDF) Bulletin No. 114 of 1979.

(f) fails the ethanol stability test described in paragraph 9 of Annex A; and

(g) is not packed in a closed container.

3. (1) No person shall after two years from the date of publication of these regulations sell any raw milk, raw cream, raw skimmed milk, raw reconstituted (prepared) milk, raw reconstituted (prepared) skimmed milk or raw milk that has become sour, except in the areas of jurisdiction of the local authorities listed in Annex C.

(2) Any local authority that is of the opinion that it can exercise sufficient control over the selling of the raw dairy products referred to in subparagraph (1) may request the Minister, in writing through the relevant provincial health department, to be listed in Annex C.

(3) Any local authority that is listed in Annex C may request the Minister in writing to delete its name from the list.

4. (1) No person shall sell for consumption raw milk, raw cream, raw skimmed milk, raw reconstituted (prepared) milk or raw reconstituted (prepared) skimmed milk which—

(a) contains the following:

(i) Antibiotics or other antimicrobial substances in amounts that exceed the maximum residue levels stipulated in the Maximum Limits for Veterinary Medicine and Stock Remedy Residues Regulations or which by virtue of a presumptive test is suspected to contain antibiotics or other antimicrobial substances in amounts that exceed such maximum residue levels;

(ii) pathogenic organisms, extraneous matter or any inflammatory product or other substance which for any reason whatsoever may render the product unfit for human consumption;

(b) gives a standard plate count of more than 50 000 colony forming units (CFUs) per 1,0 mℓ of the product when subjected to the standard plate count test described in paragraph 7 of Annex A or the dry rehydrated film method for standard colony count described in paragraph 10 of Annex A;

(c) gives a positive result when subjected to the clot-on-boiling test described in paragraph 6 of Annex A;

(d) fails the ethanol stability test described in paragraph 9 of Annex A;

(e) on execution of the modified Eijkmann test, the VRB MUG agar method or the dry rehydrated film method described in paragraphs 2, 5 and 11, respectively, of Annex A, is found to contain any *Escherichia coli* in 1,0 mℓ of fluid or 1,0 g of cream;

(f) (i) on subjection to the standard routine method for the counting of coliform bacteria in raw milk of the International Dairy Federation's International Standard IDF 73:1985, or any revised version thereof, or on application of the VRB MUG agar method described in paragraph 5 of Annex A or on using the dry rehydrated film method described in paragraph 11 of Annex A, is found to contain more than 20 coliform bacteria in 1,0 mℓ of fluid: Provided that if fewer than 20 coliform bacteria are found in 1,0 mℓ of fluid, the test referred to in regulation 4 (f) (ii) shall be applied; or

(ii) on subjection to the coliform bacteria test described in paragraph 4 (4) of Annex A, exceeds the most probable number (MPN) of 10,0 coliform bacteria per 1,0 mℓ of fluid or 1,0 g of semi-solid product;

(g) in the case of raw milk, on subjection to the standard method for counting somatic cells in bovine milk, is found to contain an average of 500 000 or more somatic cells per 1,0 mℓ of bovine milk or an average of 750 000 or more cells per 1,0 mℓ of goat's or sheep's milk after three successive readings at intervals of at least seven days during the test period, or which shows any other signs of abnormal secretory activity of the mammary gland(s);

(h) is not packed in a closed container;

(i) does not bear clearly on the label the words: "Unpasteurised"/"Ongepasteuriseerd" or "Raw milk"/"Rou melk";

(j) when the milk is sold in the consumer's own container, is tapped from a container which does not bear a label clearly indicating the words: "Unpasteurised"/"Ongepasteuriseerd" or "Raw milk"/"Rou melk";

(k) (i) is not derived from a herd enrolled in the Bovine Tuberculosis Scheme and the Bovine Brucellosis Scheme which have been established in terms of the Animal Diseases Act, 1984 (Act No. 35 of 1984); or

(ii) is not derived from a herd which annually tests negative for tuberculosis and brucellosis.

5. No person shall sell for consumption raw milk that has become sour which—

(a) contains the following:

(i) Antibiotics or other antimicrobial substances in amounts that exceed the maximum residue levels stipulated in the Maximum Limits for Veterinary Medicine and Stock Remedy Residues Regulations or which by virtue of a presumptive test is suspected to contain antibiotics or other antimicrobial substances in amounts that exceed such maximum residue levels;

(ii) pathogenic organisms, extraneous matter or any inflammatory product or other substance which for any reason whatsoever may render the raw milk unfit for human consumption;

(b) on application of the modified Eijkmann test or the VRB MUG agar method described in paragraphs 2 and 5, respectively, of Annex A, is found to contain any *Escherichia coli* in 1,0 mℓ of the product;

(c) on subjection to the coliform bacteria test or the dry rehydrated film method described in paragraphs 5 and 11 of Annex A, respectively, contains more than 50 coliform bacterial per 1,0 mℓ of the product;

(d) is not packed in a closed container; and

(e) does not bear clearly on the label the words: "Unpasteurised sour milk"/"Ongepasteuriseerde suur melk" or "Raw sour milk"/"Rou suur melk";

(f) when the milk is sold in the consumer's own container, is tapped from a container which does not bear a label clearly indicating the words: "Unpasteurised sour milk"/"Ongepasteuriseerde suur melk" or "Raw sour milk"/"Rou suur melk".

6. No person shall sell—

(a) pasteurised milk, pasteurised reconstituted (prepared) milk, pasteurised skimmed milk, pasteurised reconstituted (prepared) skimmed milk or pasteurised cream which—

(i) contains the following:

(aa) Antibiotics or other antimicrobial substances in amounts that exceed the maximum residue levels stipulated in the Maximum Limits for Veterinary Medicine and Stock Remedy Residues Regulations or which by virtue of a presumptive test (for example the Kundrat test) is suspected to contain antibiotics or other antimicrobial substances in amounts that exceed such maximum residue levels;

(bb) pathogenic organisms, extraneous matter or any inflammatory product or other substance which for any reason whatsoever may render the product unfit for human consumption;

(ii) has been shown by the Aschaffenburg and Mullen phosphatase test described in paragraph 3 of Annex A or any other test, provided its accuracy equals that of the aforementioned test, to yield the equivalent of 10 micrograms or more of p-nitrophenol per 1,0 mℓ;

(iii) (aa) on execution of the test described in paragraph 4 (4) of Annex A, exceeds the most probable number (MPN) of 10,0 coliform bacteria per 1,0 mℓ milk or 1,0 g of semi-solid product; or

(bb) on execution of the modified Eijkmann test, the VRB MUG agar method or the dry rehydrated film method described in paragraphs 2,5 and 11, respectively, of Annex A, is found to contain any *Escherichia coli* in 1,0 mℓ of milk or 1,0 g of semi-solid product;

(iv) gives a standard plate count of more than 50 000 colony forming units (CFUs) per 1,0 mℓ of fluid or per 1,0 g of semi-solid product when subjected to the tests described in paragraph 7 or 10 of Annex A;

(v) is not packed in a hermetically sealed container when sold to the ultimate consumer: Provided that in cases where the consumer supplies his or her own empty container to be filled from a bulk tank or container, the filled container need not be hermetically sealed;

(b) sterilised cream, sterilised milk, sterilised reconstituted (prepared) milk or UHT cream or UHT milk which—

(i) contains the following:

(aa) Antibiotics or other antimicrobial substances in amounts that exceed the maximum residue levels stipulated in the Maximum Limits for Veterinary Medicine and Stock Remedy Residues Regulation or which by virtue of a presumptive test is suspected to contain antibiotics or other antimicrobial substances in amounts that exceed such maximum residue levels;

(bb) pathogenic organisms, extraneous matter or any inflammatory product or other substance which for any reason whatsoever may render any such product unfit for human consumption;

(ii) (aa) shows an increase in titratable acidity greater than 0,02, expressed as grams of lactic acid per 100 mℓ of milk, on application of the test described in paragraph 8 of Annex A after incubation at 30 °C ± 1 °C for 14 days;

(bb) shows any signs of coagulation or blown containers after incubation;

(iii) is not packed in a hermetically sealed container when sold to the ultimate consumer.

7. Subject to the provisions of the Act, no person shall sell any dairy product or composite dairy product which—

(a) contains the following:

(i) Antibiotics or other antimicrobial substances in amounts that exceed the maximum residue levels stipulated in the Maximum Limits for Veterinary Medicine and Stock Remedy Residues Regulations or which by virtue of a presumptive test is suspected to contain antibiotics or other antimicrobial substances in amounts that exceed such maximum residue levels;

(ii) pathogenic organisms, extraneous matter or any inflammatory product or other substance which for any reason whatsoever may render any such product unfit for human consumption;

(b) in the case of milk powder or skimmed milk powder, contains more than 50 000 colony forming units per gram on application of the standard plate count test described in paragraph 7 of Annex A;

(c) with the exception of ripened cheese—

(i) on execution of the test described in paragraph 4 of Annex A or the test described in International Standard IDF 73A:1985, contains more than 50 coliform bacteria per 1,0 mℓ of fluid or 1,0 g of solid or semi-solid product;

(ii) on execution of the modified Eijkmann test or the VRB MUG agar method described in paragraphs 2 and 5, respectively, of Annex A, is found to contain any *Escherichia coli* in 1,0 mℓ of fluid or 1,0 g of solid or semi-solid product;

(d) in the case of ripened cheese—

(i) on execution of the test described in paragraph 4 of Annex A or the test described in International Standard IDF 73A:1985, contains more than 1 000 coliform bacteria per 1,0 g of the product;

(ii) on execution of the modified Eijkmann test or the VRB MUG agar method described in pragraphs 2 and 5, respectively, of Annex A, is found to contain any *Escherichia coli* per 1,0 mℓ of fluid or 1,0 g of solid or semi-solid product;

(e) is not packed in a hermetically sealed package or in a closed package.

8. No person shall sell any dairy product or composite dairy product which contains any food additive not permitted by regulation.

9. No person shall sell milk, cream or any dairy product that is not derived from the mammary gland(s) of lactating cows of the bovine species or of goats or sheep unless it is labelled in accordance with the requirements of the Labelling and Advertising of Foodstuffs Regulations promulgated under the Act.

10. No pasteurised milk, pasteurised cream or pasteurised reconstituted (prepared) milk which is returned to the milk processing plant shall be resold or processed for resale.

11. In determining whether milk, dairy products and composite dairy products meet the requirements laid down in regulations 2, 4, 5, 6 and 7, the tests prescribed therein shall be conducted and these tests shall be conclusive for the said purpose.

Repeal of regulations

12. The regulations published by Government Notice No. R. 258 of 8 February 1985, as amended by Government Notice No. R. 2706 of 15 November 1991, are hereby repealed.

ANNEX A

METHODS FOR THE TESTING OF MILK, CREAM AND DAIRY PRODUCTS

1. (1) (a) The tests set forth in Annex A shall be conducted in appropriate cases in order to ascertain the suitability of milk, cream and dairy products for human consumption. Samples shall not be frozen but shall be kept at a temperature below 5 °C and shall be tested within 48 hours of collection: Provided that these requirements shall not apply to dried dairy products, sterilised milk, UHT milk and condensed dairy products in their unopened containers.

(b) For the purpose of Annex A "milk" shall include milk that has undergone pasteurisation or sterilisation or ultra high temperature treatment, and cream.

MICROBIOLOGICAL TESTS

(2) (a) All distilled water used in the preparation of mediums shall be glass distilled water or water of similar purity.

(b) All glassware used in the tests prescribed by this Annex shall be sterile.

(c) The sterility of all glassware, media and diluents shall be checked by—

(i) testing representative control tubes, control dishes and growth media used in each batch of tests;

(ii) using the growth medium referred to in this Annex.

(d) All pipettes of the blow-out type shall be suitably plugged with non-absorbent cotton wool.

(e) All glassware used for volumetric measurement shall have an accuracy level at least equal to National Physical Research Laboratory Grade B.

(f) All chemicals used in the preparation of the solutions and media referred to in this Annex shall, except where otherwise prescribed, be of an analytical reagent grade or a grade suitable for the preparation of bacteriological media.

(g) Appropriate dehydrated culture media, where such preparations are available, may be used instead of the media prescribed: Provided that such dehydrated media shall conform to the description given and yield equivalent results: Provided further that any peptone, bile salts, tryptone, yeast extract and ox bile used shall be of a standard equivalent to the reference standard kept by the South African Bureau of Standards.

(h) The representative milk samples shall be taken with sterile equipment and placed in sterile sample containers that seal properly, and precautions shall be taken to prevent the contamination of the samples. Such containers shall be closed and shall, if the test does not commence within 15 minutes of collection, be surrounded by crushed ice or any other suitable refrigerant capable of reducing the temperature of the samples to below 5 °C within 30 minutes, and of maintaining the samples unfrozen at that temperature.

Modified Eijkmann test for *Escherichia coli*

2. (1) The modified Eijkmann test shall be carried out in the manner set out below.

(2) Thoroughly mix the sample of milk or cream and, if the cream is too thick for easy handling, heat it to a temparature not higher than 37 °C.

(3) After taking all necessary precautions to prevent contamination of the sample, inoculate three tubes containing 10 mℓ (m/v) of brilliant green bile broth and fitted with an inverted Durham fermentation tube for the detection of gas using a 1 mℓ pipette with the equivalent of 0,01 mℓ in the case of raw milk intended for pasteurisation and 1 ml in the case of pasteurised milk, reconstituted (prepared) milk, pasteurised cream and cultured dairy products. In the case of solid or semi-solid dairy products, inoculate tubes containing double-strength brilliant green bile broth with 10 mℓ of a 1:10 dilution of the dairy product.

(4) For the measurement of the 0,01 mℓ quantities to be tested in the case of milk, prepare decimal dilutions in accordance with the standard plate count method described in paragraph 7 (1) (a) and (b), substituting 11,0 mℓ of milk for 11,0 g of milk powder or skimmed milk powder.

(5) Incubate the inoculated brilliant green bile broth for 48 hours in a water bath keeping the temperature of the water bath at 44 °C ± 0,15 °C.

(6) If the incubation prescribed in subparagraph (5) leads to the formation of gas as seen in the Durham tube, transfer an inoculum of 0,2 mℓ from each brilliant green bile broth tube in which gas has formed to a separate tube of tryptone water.

(7) Incubate the tryptone water tubes referred to in subparagraph (6) in the water bath referred to in subparagraph (5) at 44 °C ± 0,25 °C for 24 ± 2 hours.

(8) After the said 24 ± 2 hours, test the tryptone water in the tubes for indole production by adding 0,5 mℓ of Kovac's reagent.

(9) The formation of a rose-coloured ring at the interface of the two liquids indicates the presence of indole.

(10) A positive result for gas and indole in any of the three tubes inoculated with the prescribed volume of the same milk shall be taken to indicate the presence of *Escherichia coli.*

(11) Prepare the (m/v) brilliant green bile broth, the tryptone water and the Kovac's reagent as follows:

(a) (i) The composition of the brilliant green bile broth shall be as follows:

Ox bile	20 g
Peptone	10 g
Lactose	10 g
1 per cent (m/v) aqueous solution of brilliant green	1,3 mℓ
Distilled water	1ℓ

(ii) Dissolve the constituents in the distilled water.

(iii) Adjust the pH to a value of 7,2 to 7,4.

(iv) Distribute the medium in 10 mℓ quantities among test tubes containing an inverted Durham fermentation tube and then sterilise them in an autoclave at 121 °C for at least 15 minutes.

(v) In order to prepare double-strength brilliant green bile broth, use half the quantity of distilled water.

(b) (i) The composition of the tryptone water shall be as follows:

Tryptone	10 g
Sodium chloride	5 g
Distilled water	up to 1ℓ

(ii) Dissolve the constituents in the distilled water by warming the mixture slightly.

(iii) Cool to 20–25°C and adjust the pH with sodium hydroxide solution or hydrochloric acid solution to between 7,4 and 7,5.

(iv) Dispense the medium in 5 mℓ aliquots in test tubes. Autoclave the dispensed medium at 121 °C for at least 15 minutes.

(c) (i) The composition of the Kovac's reagent shall be as follows:

Paradimethylaminobenzaldehyde	5 g
Concentrated hydrochloric acid	25 mℓ
Amyl alcohol (pyridine free)	75 mℓ

(ii) Dissolve the paradimethylaminobenzaldehyde in the amyl alcohol and add the hydrochloric acid.

(iii) After preparation, the reagent should be yellow in colour.

(iv) Place the reagent in an amber-coloured glass stoppered vessel and store in a cool, dark place.

(v) Do not use the reagent within 24 hours after preparation.

Aschaffenburg and Mullen phosphatase test

3. (1) The phosphatase test shall be carried out in the manner set out below.

(2) Test each sample as soon as possible after its arrival at the laboratory.

(3) If the sample is not tested immediately on its arrival at the laboratory, keep it at a temperature below 5 °C, but not frozen, until it is tested.

(4) Raise the temperature of the sample to 20–25 °C immediately before it is tested.

(5) Take the following precautions during or in connection with the testing of a sample;

(a) Except in the case of cultured dairy products, do not test a sample that shows signs of spoiling or souring.

(b) Use a clean pipette for each sample of milk or cream and ensure that no pipette is contaminated with saliva.

(c) Do not perform the test in direct sunlight.

(d) Use only distilled water throughout the test.

(6) Whenever practicable, use reagents of analytical quality for this test. Prepare the buffer substrate solution as follows:

(a) Buffer solution: Dissolve 3,5 g of anhydrous sodium carbonate and 1,5 g of sodium bicarbonate in distilled water and fill up with water to 1 ℓ solution in a volumetric flask.

(b) Keep the solid substrate, disodium p-nitrophenyl phosphate, in a refrigerator.

(c) Buffer substrate solution:

(i) Place 150 mg of the substrate in a standard 100 mℓ volumetric measuring flask and fill to the 100 mℓ mark with the buffer solution.

(ii) Store the solution in a refregerator and protect from light.

(iii) When distilled water is used for purposes of comparison, the solution must give a reading of less than the standard 10 on the comparator disc APTW 5 or APTW 7 when viewed in transmitted light through a 25 mm cell in the all-purpose comparator.

(iv) Do not use the solution for longer than one week.

(7) Use the following apparatus for the test:

(a) A Lovibond all-purpose comparator with a stand for work in reflected light.

(b) A Lovibond comparator disc APTW 5 or APTW 7.

(c) Two fused-glass cells, 25 mm deep, or test tubes of colourless glass, 13,5 mm internal diameter, conforming to B.S. 625, fitted with non-p-nitrophenol-containing stoppers, for use in the Lovibond all-purpose 1 000 comparator.

(d) A water bath capable of being maintained at 37 °C ± 0,5 °C.

(e) A pipette to deliver 5,0 mℓ.

(f) A supply of 1,0 mℓ straight-sided pipettes.

(g) A 1 ℓ volumetric flask.

(h) A 100 mℓ standard volumetric flask.

(8) (a) After use, empty each tube, rinse it in water, wash well in hot water containing soda, rinse in hot water and then in distilled water and dry, or clean by some other equally effective method.

(b) If, after treatment in accordance with (a) of this subparagraph, a test tube does not appear to be clean, repeat the treatment but, in addition, after rinsing it in hot water, place it in hydrochloric acid and then rinse it again in hot water and then in distilled water and dry it, or clean it by some other equally effective method.

(c) Clean new glassware by dipping it in a solution of chromic acid consisting of five volumes of 8% (m/v) potassium dichromate and four volumes of concentrated sulphuric acid added slowly and carefully to the mixture of dichromate and water.

(d) Keep the solution referred to in (c) of this subparagraph covered and discard it when it turns green.

(e) After cleaning new glassware in the manner described above, rinse it in hot water, then rinse it in distilled water and dry.

(f) Pipettes should be rinsed in cold water and then cleaned by soaking for 24 hours in a solution of chromic acid in a 250 mℓ glass cylinder or other suitable container, and thereafter well rinsed in hot water and then in distilled water and dried, or cleaned by some other equally effective method.

(g) Glassware used for the test shall not be used for any other purpose and shall be kept separate from all other apparatus in the laboratory.

(9) The test shall be carried out in the manner as set out below:

(a) Transfer 5 mℓ of the buffer substrates solution to a test tube using a pipette, stopper the test tube and bring the contents to a temperature of 37 °C ± 0,5 °C.

(b) Add 1 mℓ of the milk or cream to be tested, replace the stopper of the test tube and mix the contents well by shaking.

(c) Incubate the test tube of 2 hours ± 1 minute at 37 °C ± 0,5 °C.

(d) With each series of samples, incubate one control sample prepared from 5 mℓ of buffer substrate solution and 1 mℓ of boiled milk or cream of the same type as that undergoing the test.

(e) After incubation, remove the test tube from the water bath and mix the contents well.

(f) Place the control sample on the left-hand ramp of the stand and the test sample on the right.

(g) Take the readings in reflected light by looking down onto the two apertures with the comparator facing a good source of daylight.

(h) If artificial light is needed for matching, use a daylight type of illumination.

(i) Revolve the disc until the colour of the test sample matches that of the control sample.

(j) Record readings falling between two standards by affixing a plus or minus sign to the figure for the nearest standard.

COLIFORM BACTERIA TEST

4. (1) The coliform bacteria test form milk, reconstituted (prepared) milk, pasteurised milk, pasteurised cream and dairy products shall be carried out in the manner set out below or by using the VRB MUG agar method described in paragraph 5 of Annexure A.

(2) Mix the milk, cream or dairy product thoroughly before sampling from bulk.

(3) (a) Thoroughly mix samples of milk, skimmed milk, buttermilk or cream. If it is too thick for easy handling, cream may be heated to a temperature not exceeding 37 °C. Prepare the 1:10 dilution (m/m) by adding 1 mℓ of the product to 9 mℓ of the sterile diluent (phosphate buffer or peptone saline solution) or 11 mℓ of the product to 99 mℓ of the diluent (paragraph 7).

(b) Thoroughly mix viscous or semi-solid cultured dairy products and place 11 g of the mixed product in a sterile wide-mouthed container. Add 99 mℓ of heated (40 °C) sterile 2% (m/v) sodium citrate solution and shake the mixture until homogeneous dispersion is obtained. This constitutes the 1:10 dilution (m/m) of the product. Further tenfold dilutions are prepared in the sterile diluent (paragraph 7).

(4) The most probable number (MPN) of coliform bacteria shall be determined as follows:

(a) Inoculate three test tubes each containing 10 mℓ of double-strength brilliant green bile broth as described in paragraph 2 (11) (a) (i) to (v) and a Durham tube with 10 mℓ of the 1:10 dilution of the product. This inoculation corresponds to 1 g or 1 mℓ of the product sample in each tube.

(b) Inoculate three tubes each containing 10 mℓ single-strength brilliant green bile broth and a Durham tube with 1 mℓ of the 1:10 dilution of the product. This inoculation corresponds to 0,1 g or 0,1 mℓ of sample in each tube.

(c) Inoculate three tubes each containing 10 mℓ of single-strength brilliant green bile broth and a Durham tube with 1 mℓ of the 1:100 dilution or 0,1 mℓ of the 1:10 dilution of the product. This inoculation corresponds to 0,01g or 0,01 mℓ of the sample in each tube.

(d) Mix carefully, making sure that no air bubbles are shaken into the Durham tubes.

(e) After preparing the initial dilutions, proceed without delay with the preparation of further dilutions and inoculations.

(f) Incubate the inoculated tubes for 48 ± 2 hours at 30 °C ± 1 °C.

(g) A tube containing sufficient gas to fill the concavity of the Durham tube shall be recorded as positive. A positive result shall also be recorded if the Durham tube contains less than the said amount of gas but effervescence occurs when the side of the test tube is tapped. Record the number of positive results.

(h) In the case of fruit yoghurt and other products containing a fermentable substance other than lactose, confirm the presence of lactose fermenters by transferring one loop full of the contents of each tube showing gas production to fresh tubes of single-strength brilliant green bile broth, incubating these tubes for 48 ± 2 hours at 30 °C ± 1 °C and examining them for gas production.

(i) The number of positive tubes (after confirmation, in the case of products containing fermentable substances other than lactose) for each dilution is used for determining the MPN of coliform bacteria per 1,0 g or 1,0 mℓ of the product in accordance with the following table:

Number of positive tubes			MPN of coliforms in	Number of positive tubes			MPN of coliforms in
1,0 g or 1,0 mℓ	0,1 g or 0,1 mℓ	0,01 g or 0,01 mℓ	1,0 g or 1,0 mℓ	1,0 g or 1,0 mℓ	0,1 g or 0,1 mℓ	0,01 g or 0,01 mℓ	1,0 g or 1,0 mℓ
0	0	0	0,0	2	2	2	3,5
0	0	1	0,3	2	2	3	4,0
0	1	0	0,3	2	3	0	3,0
0	1	1	0,6	2	3	1	3,5
0	2	0	0,6	2	3	2	4,0
1	0	0	0,4	3	0	0	2,5
1	0	1	0,7	3	0	1	4,0
1	0	2	1,1	3	0	2	6,5
1	1	0	0,7	3	1	0	4,5
1	1	1	1,1	3	1	1	7,5
1	2	0	1,1	3	1	2	11,4
1	2	1	1,5	3	1	3	16,0
1	3	0	1,6	3	2	0	9,5
2	0	0	0,9	3	2	1	15,0
2	0	1	1,4	3	2	2	20,0
2	0	2	2,0	3	2	3	30,0
2	1	0	1,5	3	3	0	25,0
2	1	1	2,0	3	3	1	45,0
2	1	2	3,0	3	3	2	110,0
2	2	0	2,0	3	3	3	> 110,0
2	2	1	3,0	3	3	3	> 110,0

(5) Cultured products with developed acidity shall be tested within 48 hours of their manufacture.

Violet red bile (MUG) agar method for coliforms and *Eschericia coli*

5. (1) The coliform organism test and the test for *Escherichia coli* in milk, reconstituted (prepared) milk, pasteurised milk, pasteurised cream and dairy products shall be carried out in the manner set out below.

(2) Prepare the samples as follows:

(a) Thoroughly mix samples of milk, skimmed milk, buttermilk or cream. If it is too thick for easy handling, cream may be heated to a temperature not exceeding 37 °C. Prepare the 1:10 dilution (m/m) by adding 1 mℓ of the product to 9 mℓ of sterile diluent or 11 mℓ of the product to 99 mℓ of diluent.

(b) Thoroughly mix viscous or semi-solid cultured dairy products and place 11 g of the product in a sterile wide-mouthed container. Then add 99 mℓ of heated (40 °C) sterile 2% (m/v) sodium citrate solution and shake the mixture until homogeneous dispersion has been obtained. This constitutes the 1:10 dilution of the product. Prepare further tenfold dilution in the sterile diluent.

(3) The violet red bile agar is prepared as follows:

	g/ℓ
Brain heart infusion	7,0
Peptone	4,0
Lactose	9,0
Bile salts No. 3	1,5
Neutral red	0,03
Crystal violet	0,002
MUG (4-methylumbelliferyl B-D-glucuronide)	0,1
Sodium chloride	4,5
Disodium phosphate	1,0
Agar	13,0*

* Add the MUG reagent, if not already included in the media, according to the manufacture's instructions.

Note: (i) The preparation of the samples should not be carried out in direct sunlight; and

(ii) normal aseptic precautions should be taken when necessary.

(4) The test shall be conducted as follows:

(a) Prepare dilutions so as to obtain plates with colony counts of more than 10, if possible, and fewer than 150. In the case of milk and liquid dairy products, make sure that the micro-organisms in the test sample are distributed as evenly as possible by inverting the sample container 25 times. If foam is formed, it should be allowed to disperse. The interval between mixing and removing the test portion should not be longer than three minutes.

Remove 1 mℓ of the test sample with a sterile pipette and add to 9 mℓ of the diluent (or 10 mℓ of the test sample to 90 mℓ of the diluent or 11 mℓ of the test sample to 99 mℓ of the diluent). Shake this primary dilution thoroughly. In this way, a 10^{-1} dilution is obtained.

(b) Now prepare further dilutions by transferring, using a sterile pipette, 1 mℓ of the primary dilution to another test tube containing 9 mℓ of sterile diluent, avoiding contact between the pipette and the diluent. A fresh pipette should be used for each dilution.

Alternatively, transfer 10 mℓ of the primary dilution to a bottle containing 90 mℓ of the sterile diluent, or 11 mℓ of the primary dilution to 99 mℓ of the sterile diluent.

Mix thoroughly either by aspirating 10 times with a fresh pipette or by mixing mechanically for 5 to 10 seconds to obtain the 10^{-2} dilution. The frequency of rotation in the case of mechanical mixing shall be such that the liquid moves two to three centimetres up the side of the vessel while being mixed. If necessary, repeat this procedure, using the 10^{-2} and further dilutions to obtain 10^{-3}, 10^{-4}, etcetera, dilutions until the appropriate number of micro-organisms has been obtained.

Note: The time lapse between the initial measurement of the test portion, the preparation of the primary dilution and the mixing of the dilutions and mediums shall not be longer than 15 minutes.

(c) Use a pipette to transfer 1 mℓ of the liquid product or the appropriate dilutions to the centre of two petri dishes. Touch a dry area in the petri dish with the tip of the pipette. Use a fresh pipette to inoculate each dilution.

(d) Pour about 15 mℓ of the VRB MUG agar at 45 °C ± 1 °C into each petri dish. Mix immediately after pouring by rotating the petri dish sufficiently to obtain evenly dispersed colonies after incubation. Allow to solidify on a cool horizontal surface.

After complete solidification, pour about 4 mℓ of the VRB agar at 45 °C ± 1 °C onto the surface of the inoculated medium and allow to solidify. Prepare a control dish with 15 mℓ of the medium to check its sterility.

Note: In order to ensure that the temperature of the medium is 45 °C ± 1 °C before pouring, place a thermometer into a 1,5% agar solution portion in a separate container identical to that used for the medium. This control portion should be exposed to the same heating and cooling as the medium.

(e) Incubate the plates in an inverted position. Do not stack them more than six high. Stacks of plates should be separated from one another and from the sides and top of the incubator. Incubate at 30 °C ± 1 °C for 24 ± 2 hours.

(f) Examine the plates under a 366 nm ultra violet light. All colonies showing a blue fluorescence in the surrounding medium are counted. Then examine the plates under normal light and count the coliform organisms. Select the plates with more than 10 and fewer than 150 colonies. Count the dark red-coloured colonies with a diameter of at least 0,5 mm, characteristic of coliform organisms. These dark pink to red colonies are usually surrounded by a red zone in the medium. Confirm the count by following the procedure described in subparagraph (g). Calculate the number of coliform organisms per gram or per millilitre, taking into account the result of the confirmatory test. Five or more fluorescent colonies are regarded as positive for *Escherichia coli*.

(g) The confirmatory test is done by inoculating five colonies of each type, if available, into tubes of brilliant green lactose bile broth containing a Durham tube and incubating at 30 °C ± 1 °C for 24 ± 2 hours. Consider colonies that show gas formation in the Durham tube to be coliform organisms.

The clot-on-boiling test

6. (1) Thoroughly mix the milk before sampling.

(2) Pour 5 mℓ of milk into a test tube.

(3) Place the tube in boiling water.

(4) Ensure that the level of the boiling water is higher than the milk level.

(5) Stand the test tube of milk in the boiling water for five minutes.

(6) Remove the test tube from the water and tilt the tube almost horizontally without shaking the milk inside.

(7) Wait until a thin film is formed on the milk.

(8) The result is positive if all the milk clots or if floccules are seen to be adhering to the sides of the tube when it is returned to the vertical position.

Note: Colostrum in milk will result in a positive clot-on-boiling test result. The heat stability of the milk is also affected by other factors.

Standard plate count

7. (1) Mix raw milk or pasteurised milk thoroughly immediately before sampling from bulk:

(a) The 1:10 dilution (m/m) of raw or pasteurised milk shall be prepared in the manner set forth in paragraphs 4 (3) (a) and (b) of this Annex.

(b) In the case of milk powder and skimmed milk powder the 1:10 dilution (m/m) shall be prepared as follows:

Place 99 mℓ of sterile phosphate buffer* into a sterile wide-mouthed container equipped with a rubber stopper or a screw top and heat it to 47 °C ± 2 °C by placing it in a water bath at this temperature. Weigh 11 g of the powder into a sterile aluminium weighing boat or glass container equipped with a rubber stopper or a screw top and heat it to 47 °C ± 2 °C by placing it in a water bath at this temperature.

Quickly add the powder to the warm diluent and turn the dilution bottle slowly in order to wet the powder. Then shake the bottle 25 times using up and down movements of 300 mm. Replace the bottle in the water bath for an additional five minutes and shake it at intervals. In order to facilitate the reconstitution of the powder, a few grams of sterile glass beads may be added to the diluent. Prepare additional tenfold dilutions in sterile diluent (at room temperature) as required.

(2) Using a fresh pipette, transfer 1 mℓ of each of the dilutions at least in duplicate to sterile petri dishes, beginning with the highest concentration and ending with the lowest.

(3) To each dish add 10 mℓ of the standard plate count agar** which has been melted beforehand and cooled to 45 °C ± 1 °C.

(4) Mix the contents of each dish thoroughly using horizontal rotational movement while the medium is still fluid.

(5) Once the medium has set, invert the dishes and incubate at 30 °C ± 1 °C for 72 ± 2 hours.

(6) At the end of the incubation period remove the dishes from the incubator and count the colony-forming units CFU with the aid of magnification under uniform artificial illumination.

(7) To count the CFUs of each dish, spreader-free dishes containing 30–300 CFU are selected; count all the CFUs and calculate the number of CFUs per mℓ or per gram.

(8) If the number of CFUs of each dish exceeds 300, count the CFUs in portions of the dish representative of the CFU distribution and use this count to determine the total number per dish. Proceed as in (7) above, but record as an "estimated" plate count.

* **Diluents:**

Phosphate buffer solution

Potassium dihydrogen orthophosphate	5,08 g
Disodium hydrogen orthophosphate	13,63 g
in 2 ℓ distilled water	

OR

Peptone saline solution

Peptone	1,0 g
Sodium chloride	8,5 g
in 1 ℓ distilled water	

Dissolve the components in the water, heating if necessary. Adjust the pH so that, after sterilisation, it is 7,0 ± 0,1 at 25 °C.

** **Plate count agar**

Tryptone (pancreatic digestive product of casein)	5 g
Yeast extract	2,5 g
Glucose	1 g
Agar (bacterial grade)	15 g
Distilled water	1 ℓ
Final pH of sterilised medium	7,0 ± 0,1

Sterilise for at least 15 minutes at 121 °C.

Titratable acidity

8. (1) Pipette 9 mℓ of milk into a white dish.

(2) Add either 10 drops or 0,5 mℓ of a 1,6% phenolphthalein indicator solution in 50% ethanol to the milk.

(3) Titrate with 0,1 N NaOH solution until the first tinge of pink appears, that persists for 30 seconds.

(4) To express the titratable acidity of the milk as the percentage of lactic acid, divide by 10 the number of millilitres of 0,1 N NaOH used in the test.

Stability test with ethanol

9. Mix oine volume of 68% (v/v) aqueous ethanl with one volume of milk or cream. If there are no signs of coagulation, the milk or cream shall be deemed to have passed the ethanol stability test.

Dry rehydrated film method for standard colony count

10. (1) Mix milk thoroughly before sampling from bulk.

(2) Prepare a 1:10 dilution by adding 1 mℓ to 9 mℓ of sterile phosphate buffer. Mix well. Prepare a 1:100 dilution by adding 1 mℓ of the 1:10 dilution to 9 mℓ of sterile phosphate buffer. Mix well. Prepare a 1:1 000 dilution by adding 1 mℓ of the 1:100 dilution to 9 mℓ of sterile phosphate buffer. The final pH should be between 6,6 and 7,4.

(3) Place the films for aerobic bacterial counting on a flat surface and label them. Lift the top film and carefully transfer 1 mℓ of the 1:1 000 dilution to the centre of the bottom film by holding the pipette perpendicular to the film. Release the top film to drop onto the sample. Repeat the process with the 1:100 dilution of the sample.

(4) Distribute the sample evenly on the film by applying gentle downward pressure with a spreader. Remote the spreader and leave the film undisturbed for one minute to solidify.

(5) Stack the films in piles of not more than 20 and incubate the films, with the clear sides up, 32 °C ± 1 °C for 48 ± 2 hours.

(6) Remove the films from the incubator at the end of the incubation period and count the colony forming units (CFUs) with the aid of magnification under uniform artificial illumination as follows:

(a) All the red colonies, regardless of their size and intensity, should be counted. Films with 25–250 CFUs should be counted. Calculate the number of viable bacteria per millilitre of milk.

(b) An estimated count can be made on films with CFUs exceeding 250 by counting at least four squares or 20 per cent of the growth area. Calculate the number of viable bacteria per millilitre of milk and record as an "estimated" count.

(c) The presence of very high concentrations of colonies results in the entire growth area of the film becoming red or pink in colour and/or numerous bacteria growing on the edges of the growth zone. Report these as too numerous to count (TNTC).

Phosphate buffer

Potassium dihydrogen orthophosphate	5,08 g
Disodium hydrogen orthophosphate in 2 ℓ distilled water	13,63 g

Sterilize for 15 minutes at 121 °C.

Dry rehydrated film for standard colony count

	% solids on film
Cold water soluble gel	1–10%
Tetrazolium indicator dye	<1%
Standard method nutrients	1–5%

Dry rehydrated film method for coliform and *Escherichia coli* count

11. (1) Mix milk thoroughly before sampling from bulk. The pH should be between 6,6 and 7,4.

(2) Place the films for *Escherichia coli* and coliform counting on a flat surface and label them. Lift the top film and transfer 1 mℓ of the milk to the centre of the bottom film, by holding the pipette perpendicular to the film.

(3) Slowly roll the top film onto the sample to prevent air bubbles being trapped under the top film.

(4) Distribute the sample evenly on the film by applying gentle downward pressure with a spreader. Remove the spreader and leave the film undisturbed for one minute to solidify.

(5) Stack the film in piles of no more than 20 and incubate the films, with the clear side up, at 32 °C ± 1 °C for 24 ± 2 hours.

(6) At the end of the incubation period remove the films from the incubator and count the colonies with the aid of magnification under uniform artificial illumination as follows (Re-incubate films for a further 24 ± 2 hours to detect any additional *Escherichia coli* growth.):

(a) Blue colonies associated with gas are *Escherichia coli* and red colonies associated with gas are coliform colonies. Colonies that are not associated with gas are not counted as coliform colonies. All the red and blue colonies with gas represented the coliform colony count.

(b) Films with 15–150 colonies should be counted. An estimated count can be made on films where the colonies exceed 150 by counting at least 4 squares or 20 per cent of the growth area. Calculate the number of viable coliform colonies per millilitre of milk and report it as an "estimated" coliform colony count.

(c) The presence of very high concentrations of colonies causes the entire growth area of the film to become purple blue *(Escherchia coli)* or reddish (coliforms) and/or many small colonies and/or small gas bubbles to be present. This must be recorded as too numerous to count (TNTC).

Dry rehydrated film for coliform and *Escherichia coli* counts

	% of solid on plate
Violet red bile nutrients	1–5%
Cold water soluble gel	1–10%
Tetrazolium indicator dye	<1%
Glucuronidase indicator	<1%

ANNEXURE B

PASTEURISATION

1. The pasteurisation of milk shall be performed—

(a) by heating every particle of the milk to a temperature of at least 63 °C (not exceeding 65,5 °C) and keeping it at that temperature for at least 30 minutes, which heating shall be followed by cooling within 30 minutes to a temperature lower than 5 °C (this process is referred to as the "holder method" or the "batch method"); or

(b) by heating every particle of the milk to a temperature of at least 72 °C and keeping it at that temperature for at least 15 seconds, which heating shall be followed immediately by cooling to a temperature lower than 5 °C (this process is hereinafter referred to as the "high-temperature short-time method"); or

(c) by any other method prescribed by regulation:

Provided that milk shall in no instance be deemed to have been pasteurised if it fails to pass the Aschaffenburg and Mullen phosphatase test described in paragraph 3 of Annexure A or any other test, provided the accuracy thereof equals of the Aschaffenburg and Mullen phosphatase test.

2. Cream and milk or dairy products containing added sweetners shall be pasteurised as follows:

(a) By heating every particle of the product to a temperature of at least 66 °C and keeping it at this temperature for at least 30 minutes; or

(b) by heating every particle of the product to a temperature of at least 74 °C and keeping it at this temperature for at least 15 seconds; or

(c) by any other method prescribed by regulation:

Provided that such product shall in no instance be deemed to have been pasteurised if it fails to pass the Aschaffenburg and Mullen phosphatase test described in paragraph 3 of Annexure A or any other test, provided the accuracy thereof equals that of the Aschaffenburg and Mullen phosphatase test.

3. The process of pasteurisation, if carried out according to the high-temperature short-time method, shall be mechanically controlled with regard to the temperature range of the milk and the period for which milk is kept at the prescribed temperature, and the apparatus concerned shall be calibrated monthly to ensure the correctness of the pasteurisation process.

4. Thermographic recording of temperatures of pasteurisation by any method shall be made and retained for at least four weeks.

ANNEXURE C

LOCAL AUTHORITIES IN WHOSE AREAS OF JURISDICTION RAW DAIRY PRODUCTS LISTED IN REGULATION 3 (1) MAY BE SOLD

No. R. 1555 **21 November 1997**

WET OP VOEDINGSMIDDELS, SKOONHEIDSMIDDELS EN ONTSMETTINGSMIDDELS, 1972 (WET No. 54 VAN 1972)

REGULASIES BETREFFENDE MELK EN SUIWELPRODUKTE

Die Minister van Gesondheid het kragtens artikel 15 (1) van die Wet op Voedingsmiddels, Skoonheidsmiddels en Ontsmettingsmiddels, 1972 (Wet No. 54 van 1972), die regulasies in die Bylae uitgevaardig.

BYLAE

Woordomskrywing

1. In hierdie regulasies het 'n uitdrukking waaraan 'n betekenis in die Wet toegeken is, daardie betekenis en, tensy uit die samehang anders blyk, beteken—

"aangesuurde karringmelk" karringmelk of gepasteuriseerde of hersaamgestelde (aangemaakte) melk wat met 'n kultuur geïnokuleer is;

"aanwysende toets" 'n toets waarvan die positiewe resultaat lei tot die vermoede dat 'n stof teenwoordig is, waarna daardie vermoede bewys moet word deur die gebruik van meer gesofistikeerde en akkurate toetsmetodes;

"afgeroomde melk" melk waarvan die vet verwyder is om te voldoen aan die vetinhoudvereistes voorgeskryf in die Regulasies betreffende Suiwelprodukte en Nagemaakte Suiwelprodukte (Goewermentskennisgewing No. R. 2581 van 20 November 1987, soos gewysig), uitgevaardig kragtens die Wet op Landbouprodukstandaarde, 1990 (Wet No. 119 van 1990) (hierna die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte genoem);

"afgeroomde melkpoeier" die produk verkry deur die droging van afgeroomde melk;

"botter" die produk waarvan die vet uitsluitlik uit bottervet bestaan en waarvan die samestelling voldoen aan die vetinhoudvereistes voorgeskryf in die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte;

"die Wet" die Wet op Voedingsmiddels; Skoonheidsmiddels en Ontsmettingsmiddel, 1972 (Wet No. 54 van 1972);

"Escherichia coli" die organisme wat gas by 44 °C ± 0,25 °C in briljante groen 2% (m/v) galboeljon produseer en indool in triptoonwater by dieselfde temperatuur produseer wanneer dit 24 uur lank geïnkubeer word, deur gebruik te maak van die metode beskryf in paragraaf 2 van Aanhangsel A of, alternatiewelik, wanneer die violetrooigal-MUG-agarmetode gebruik word, dié kolonies wat blou fluoresseer in die omliggende media onder 'n ultraviolet lig na inkubasie vir 24 ± 1 uur by 30 °C;

"gemodifiseerde suiwelproduk" 'n produk soos omskryf in die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte;

"geslote houer" 'n skoon houer wat vloeistofdig en lekvry is en die produk daarin sal vrywaar teen kontaminasie in normale bergings-, hanterings- en vervoertoestande;

"hermeties verseëlde houer" 'n houer wat nie oopgemaak is nie en wat nie oopgemaak kan word sonder om sodanige houer of 'n seël, opgeplakte etiket of ander deel van of aanhegting aan sodanige houer te breek of te beskadig nie en wat bedoel is om die inhoud daarvan teen die binnedringing van mikro-organismes te beskerm;

"hersaamgestelde (aangemaakte) melk" die produk verkry deur melkpoeier met water saam te stel sodat dit aan al die vereistes vir melk voldoen soos voorgeskryf in die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte;

"jogurt" die produk verkry van gepasteuriseerde melk of hersaamgestelde melk wat met 'n jogurtkultuur geïnokuleer is en toegelaat word om onder beheerde toestande te fermenteer;

"kaas" die produk verkry van 'n koagulum van—

(a) melk of melkbestanddele;

(b) room;

(c) gedeeltelik of volledig afgeroomde melk;

(d) hersaamgestelde (aangemaakte) melk;

(e) karringmelk;

(f) gekonsentreerde melk; of

(g) 'n kombinasie van bogenoemde produkte,

deur die verwydering van die wei, en wat in mindere of meerdere mate rypwording ondergaan het asook verder geprosesseerd mag wees;

"karringmelk" die melkerige neweproduk verkry van die botterbereidingsproses;

"kolivorme bakterieë" staafvormige, Gramnegatiewe aërobiese en fakultatief anaërobiese nie-spoorvormende bakterieë wat laktose fermenteer, met die gepaardgaande vorming van gas en suur, deur gebruikmaking van die mediums en die metodes in paragraaf 4 of 5 van Aanhangsel A voorgeskryf;

"kultuur" 'n vloeistof of 'n poeier wat uit een of meer aanvaarbare geselekteerde mikro-organismes bestaan, en wat gebruik word vir die vervaardiging van aangesuurde karringmelk, suurroom, suurmelk, jogurt of enige ander tipe gefermenteerde melkproduk;

"melk" die normale melkklierafskeiding van lakterende beeste, bokke en skape;

"melkpoeier" die produk verkry deur die verwydering van slegs water uit melk, gedeeltelik afgeroomde melk of volledig afgeroomde melk, met of sonder bygevoegde voedseladditiewe wat deur die Wet veroorloof word;

"nagemaakte suiwelproduk" 'n produk soos omskryf in die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte;

"pasteurisasie" die hittebehandeling, soos beskryf in Aanhangel B, van 'n suiwelproduk of 'n nagemaakte suiwelproduk, sodat—

(a) alle vegetatiewe patogene vernietig word; en

(b) in die geval van melk, die uitslag van die fosfatasetoets soos beskryf in paragraaf 3 van Aanhangsel A negatief is,

en, indien die betrokke produk nie verdere prosessering ondergaan nie, die afkoeling daarvan tot benede 5 °C geskied onmiddellik nadat dit aldus hittebehandel is;

"primêre suiwelproduk" 'n produk soos omskryf in die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte;

"room" die vloeibare suiwelproduk met 'n vetinhoud soos voorgeskryf in die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte;

"rou melk" melk wat nie pasteurisasie, sterilisasie of ultrahoëtemperatuurbehandeling ondergaan het nie;

"rou room" room wat nie pasteurisasie, sterilisasie of ultrahoëtemperatuurbehandeling ondergaan het nie;

"saamgestelde suiwelproduk" 'n produk soos omskryf in die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte;

"sterilisasie" die hittebehandeling bo 100 °C, na verpakking, van 'n suiwelproduk of 'n nagemaakte suiwelproduk sodat die betrokke produk vir 'n tydperk van minstens 14 dae teen mikrobiologiese bederf bestand is indien by 'n temperatuur van 30 °C ± 1 °C gehou;

"suiwelproduk" 'n produk soos omskryf in die Regulasies betreffende Suiwel- en Nagemaakte Suiwelprodukte;

"suur melk of aangesuurde melk" die produk verkry van gepasteuriseerde melk wat met 'n kultuur geïnokuleer is sodat dit onder beheerde toestande bepaalde mikrobiologiese flora ontwikkel;

"suur room of aangesuurde room" die produk verkry van gepasteuriseerde room wat met 'n kultuur geïnokuleer is sodat dit onder beheerde toestande bepaalde mikrobiologiese flora ontwikkel;

"UHT" of **"ultrahoëtemperatuurbehandeling"** die proses waardeur melk of 'n suiwelproduk aan hittebehandeling bo 100 °C onderwerp word en asepties verpak word sodat die eindproduk, nadat dit minstens 14 dae lank by 'n temperatuur van 30 °C ± 1 °C geïnkubeer is, vry is van bederf deur mirko-organismes;

"voedseladditief" 'n stof soos omskryf in die Regulasies betreffende die Etikettering en Advertering van Voedingsmiddels (Goewermentskennisgewing No. R. 2034 van 29 Oktober 1993, soos gewysig) (hierna die Regulasies betreffende die Etikettering en Advertering van Voedingsmiddels genoem); en

"vreemd" van eksterne oorsprong.

Beperkings

2. Niemand mag rou melk bestem vir verdere prosessering gebruik of verkoop nie wat—

(a) die volgende bevat:

(i) Antibiotika of ander antimikrobiese stowwe in hoeveelhede wat die maksimum residuvlakke oorskry wat in die Regulasies betreffende die Maksimum Perke vir Veterinêre Medisyne- en veemiddelresidu's wat in Voedingsmiddels aanwesig mag wees (Goewermentskennisgewing No. R. 1809 van 3 Julie 1992, soos gewysig) (hierna die Regulasies betreffende die Maksimum Perke vir Veterinêre Medisyne- en Veemiddelsresidu's genoem) bepaal is of wat uit hoofde van 'n aanwysende toets vermoedelik antibiotika of ander antimikrobiese stowwe bevat in hoeveelhede wat sodanige maksimum residuvlakke oorskry;

(ii) patogene organismes, vreemde stof of enige ontstekingsproduk of ander stof wat om die een of ander rede die melk ongeskik vir menslike verbruik kan maak;

(b) 'n positiewe resultaat tot gevolg het by onderwerping aan die stol-by-kook-toets wat in paragraaf 6 van Aanhangsel A beskryf word;

(c) 'n standaardplaattelling van meer as 200 000 kolonievormende eenhede per 1,0 mℓ oplewer by onderwerping aan die standaardplaattellingtoets wat in paragraaf 7 van Aanhangsel A beskryf word of die droë gerehidreerde film-metode vir standaardkolonietelling wat in paragraaf 10 van Aanhangsel A beskryf word;

(d) (i) by uitvoering van die toets beskryf in paragraaf 4 (4) van Aanhangsel A, die mees waarskynlike getal (MWG) van 10,0 kolivorme bakterieë per 1,0 mℓ melk oorskry of by uitvoering van die toets vir kolivormiges beskryf in paragraaf 11 van Aanhangsel A, die getal van 20 kolonievormende eenhede per milliliter melk oorskry; of

(ii) by uitvoering van die gewysigde Eijkmanntoets, die VRB-MUG-agarmetode of die droë gerehidreerde film-metode, wat onderskeidelik in paragrawe 2, 5 en 11 van Aanhangsel A beskryf word, enige *Escherichia coli* in 0,01 mℓ rou melk blyk te bevat;

(e) by onderwerping aan die "Standard Methods for Counting Somatic Cells in Bovine Milk"* gemiddeld 500 000 of meer selle per 1,0 mℓ beesmelk of gemiddeld 750 000 of meer selle per 1,0 mℓ bok- of skaapmelk blyk te bevat na drie opeenvolgende lesings met minstens sewedaetussenpose gedurende die toetsperiode, of wat enige ander tekens van abnormale afskeidingsaktiwiteite van die melkklier(e) toon;

* Die "Standard Method for Counting Somatic Cells in Bovine Milk" word uiteengesit in Internasionale Suiwelfederasie (ISF) Bulletin No. 114 van 1979.

(f) nie aan die etanolstabiliteitstoets wat in paragraaf 9 van Aanhangsel A beskryf word, voldoen nie; en

(g) nie in 'n geslote houer verpak is nie.

3. (1) Niemand mag na twee jaar vanaf publikasie van hierdie Regulasies rou melk, rou room, rou afgeroomde melk, rou hersaamgestelde (aangemaakte) melk, rou hersaamgestelde (aangemaakte) afgeroomde melk of rou melk wat suur geword het, verkoop nie behalwe in die gebiede van jurisdiksie van die plaaslike owerhede gelys in Aanhangsel C.

(2) Enige plaaslike owerheid wat van mening is dat hy genoegsame beheer oor die verkoop van die rou suiwelprodukte in subparagraaf (1) genoem, kan uitoefen, kan deur die betrokke provinsiale gesondheidsdepartement die Minister skriftelik versoek om in Aanhangsel C gelys te word.

(3) Enige plaaslike owerheid wat in Aanhangsel C gelys is, kan die Minister skriftelik versoek om sy naam van die lys te verwyder.

4. (1) Niemand mag rou melk, rou room, rou afgeroomde melk, rou hersaamgestelde (aangemaakte) melk of rou hersaamgestelde (aangemaakte) afgeroomde melk vir verbruik verkoop nie wat—

(a) die volgende bevat:

(i) Antibiotika of ander antimikrobiese stowwe in hoeveelhede wat die maksimum residuvlakke oorskry wat in die Maksimum Perke vir Veterinêre Medisyne- en veemiddelresidu's voorgeskryf is of wat uit hoofde van 'n aanwysende toets vermoedelik antibiotika of ander antimikrobiese stowwe bevat in hoeveelhede wat die maksimum residuvlakke oorskry;

(ii) patogene organismes, vreemde stof of enige ontstekingsproduk of ander stof wat om die een of ander rede die produk ongeskik vir menslike verbruik kan maak;

(b) 'n standaardplaattelling van meer as 50 000 kolonievormende eenhede (KVE's) per 1,0 mℓ van die produk oplewer by onderwerping aan die standaardplaattellingtoetse wat in paragraaf 7 van Aanhangsel A of die droë gerehidreerde film-metode vir standaardkolonietelling wat in paragraaf 10 van Aanhangsel A beskryf word;

(c) 'n positiewe resultaat tot gevolg het by onderwerping aan die stol-by-kook-toets wat in paragraaf 6 van Aanhangsel A beskryf word;

(d) nie aan die etanolstabiliteitstoets wat in paragraaf 9 van Aanhangsel A beskryf word, voldoen nie;

(e) by uitvoering van die gewysigde Eijkmanntoets, die VRB-MUG-agarmetode of die droë gerehidreerde film-metode, wat onderskeidelik in paragrawe 2, 5 en 11 van Aanhangsel A beskryf word, enige *Escherichia coli* in 1,0 mℓ vloeistof of 1,0 g room blyk te bevat;

(f) (i) by onderwerping aan die "Standard Routine Method for the Counting of Coliform Bacteria in Raw Milk" van die Internasionale Suiwelfederasie se "International Standard IDF 73:1985" of enige gewysigde weergawe daarvan, of by die toepassing van die VRB-MUG-agarmetode wat in paragraaf 5 van Aanhangsel A beskryf word, of deur die droë gerehidreerde film-metode wat in paragraaf 11 van Aanhangsel A beskryf word te gebruik, meer as 20 kolivormige bakterieë in 1,0 mℓ vloeistof blyk te bevat: Met dien verstande dat as minder as 20 kolivorme bakterieë in 1,0 mℓ vloeistof gevind word, die toets wat in regualsie 4 (f) (ii) vermeld word, toegepas moet word;

(ii) by onderwerping aan die toets vir kolivorme bakterieë wat in paragraaf 4 (4) van Aanhangsel A beskryf word, die mees waarskynlike getal (MWG) van 10,0 kolivorme bakterieë per 1,0 mℓ vloeistof of 1,0 g halfvaste produk oorskry;

(g) in die geval van rou melk, by onderwerping aan die "Standard Method for Counting Somatic Cells in Bovine Milk" gemiddeld 500 000 of meer somatiese selle per 1,0 mℓ koeimelk of gemiddeld 750 000 of meer selle per 1,0 mℓ bok- of skaapmelk blyk te bevat na drie opeenvolgende lesings met minstens sewedaetussenpose gedurende die toetsperiode, of wat enige ander tekens van abnormale afskeidingsaktiwiteite van die melkklier(e) toon.

(h) nie in 'n geslote houer verpak is nie;

(i) die volgende nie duidelik op die etiket vertoon nie: "Ongepasteuriseerd"/"Unpasteurised" of "Rou melk"/"Raw milk".

(j) wanneer die melk in die verbruiker se eie houer verkoop word, getap word uit 'n houer wat nie 'n etiket bevat waarop die woorde "Ongepasteuriseerd"/"Unpasteurised" of "Rou melk"/"Raw milk" duidelik vertoon word nie;

(k) (i) nie verkry is nie van 'n kudde wat ingeskryf is in die Beestuberkuloseskema en die Beesbrucelloseskema wat ingevolge die Wet op Dieresiektes, 1984 (Wet No. 35 van 1984), ingestel is; of

(ii) nie verkry is nie van 'n kudde wat negatief toets vir tuberkulose en brucellose.

5. Niemand mag rou melk wat suur geword het vir verbruik verkoop nie wat—

(a) die volgende bevat:

(i) Antibiotika of ander antimikrobiese stowwe in hoeveelhede wat die maksimum residuvlakke oorskry wat in die Regulasies betreffende die Maksimum Perke vir Veterinêre Medisyne- en veemiddelresidu's bepaal is of wat uit hoofde van 'n aanwysende toets vermoedelik antibiotika of ander antimikrobiese stowwe bevat in hoeveelhede wat die maksimum residuvlakke oorskry;

(ii) patogene organismes, vreemde stof of enige ontstekingsproduk of ander stof wat om die een of ander rede die rou melk ongeskik vir menslike verbruik kan maak;

(b) by uitvoering van die gewysigde Eijkmanntoets of die VRB-MUG-agarmetode wat onderskeidelik in paragrawe 2 en 5 van Aanhangsel A beskryf word, enige *Escherichia coli* in 1,0 mℓ van die produk blyk te bevat;

(c) by onderwerping aan die toets vir kolivormige bakterieë of die droë gerehidreerde film-metode wat in paragrawe 5 en 11 van Aanhangsel A beskryf word, meer as 50 kolivorme organismes per 1,0 mℓ van die produk blyk te bevat;

(d) nie in 'n geslote houer verpak is nie; en

(e) die volgende nie duidelik op die etiket vertoon nie: "Ongepasteuriseerde suur melk"/"Unpasteurised sour milk" of "Rou suur melk"/"Raw sour milk";

(f) wanneer die melk in die verbruiker se eie houer verkoop word, getap word uit die houer wat nie 'n etiket bevat waarop die woorde "Ongepasteuriseerde suur melk"/"Unpasteurised sour milk" of "Rou suur melk"/"Raw sour milk" duidelik vertoon word nie.

6. Niemand mag—

(a) gepasteuriseerde melk, gepasteuriseerde hersaamgestelde (aangemaakte) melk, gepasteuriseerde afgeroomde melk, gepasteuriseerde hersaamgestelde (aangemaakte) afgeroomde melk of gepasteuriseerde room verkoop nie wat—

(i) die volgende bevat:

(aa) Antibiotika of ander antimikrobiese stowwe in hoeveelhede wat die maksimum residuvlakke oorskry wat in die Regulasies betreffende die Maksimum Perke vir Veterinêre Medisyne- en veemiddelresidu's bepaal is of wat uit hoofde van 'n aanwysende toets vermoedelik antibiotika of ander antimikrobiese stowwe bevat in hoeveelhede wat die maksimum residuvlakke oorskry;

(bb) patogene organismes, vreemde stof of enige onstekingsproduk of ander stof wat om die een of ander rede die produk ongeskik vir menslike verbruik kan maak;

(ii) die ekwivalent van 10 mikrogram of meer p-nitrofenol per 1,0 mℓ blyk te lewer by uitvoering van die Aschaffenburg-en-Mullen-fosfatasetoets wat in paragraaf 3 van Aanhangsel A beskryf word, of by uitvoering van enige ander toets, mits die akkuraatheid daarvan gelykstaande met dié van die eersgenoemde toets is;

(iii) (aa) by uitvoering van die toets wat in paragraaf 4 (4) van Aanhangsel A beskryf word, die mees waarskynlike getal (MWG) van 10,0 kolivorme bakterieë per 1,0 mℓ melk of 1,0 g halfvaste produk oorskry; of

(bb) by uitvoering van die gewysigde Eijkmanntoets, die VRB-MUG-agarmetode of die droë gerehidreerde film-metode, wat onderskeidelik in paragrawe 2,5 en 11 van Aanhangsel A beskryf word, enige *Escherichia coli* in 1,0 mℓ melk of 1,0 g halfvaste produk blyk te bevat;

(iv) 'n standaardplaattelling van meer as 50 000 kolonievormende eenhede (KVE's) per 1,0 mℓ vloeistof of 1,0 g halfvaste produk oplewer by onderwerping aan die vloeistof of 1,0 g halfvaste produk oplewer by onderwerping aan die toetse wat in paragraaf 7 of 10 van Aanhangsel A beskryf word;

(v) nie in 'n hermeties verseëlde houer verpak is wanneer dit aan die eindverbruiker verkoop word nie: Met dien verstande dat in gevalle waar die verbruiker sy of haar eie leë houer verskaf wat gevul moet word uit 'n massatenk of -houer, die gevulde houer nie hermeties verseël hoef te wees nie.

(b) gesteriliseerde room, gesteriliseerde melk, gesteriliseerde hersaamgestelde (aangemaakte) melk of UHT-room of UHT-melk verkoop nie wat—

(i) die volgende bevat:

(aa) Antibiotika of ander antimikrobiese stowwe in hoeveelhede wat die maksimum residuvlakke oorskry wat in die Regulasies betreffende die Maksimum Perke vir Veterinêre Medisyne- en veemiddelresidu's bepaal is of wat uit hoofde van 'n aanwysende toets vermoedelik antibiotika of ander antimikrobiese stowwe bevat in hoeveelhede wat die maksimum residuvlakke oorskry;

(bb) patogene organismes, vreemde stof of enige onstekingsproduk of ander stof wat om die een of ander rede sodanige produkte ongeskik vir menslike verbruik kan maak;

(ii) (aa) na 'n inkubasie van 14 dae by 30 °C ± 1 °C 'n toename in titreerbare suurheid toon van meer as 0,02 uitgedruk as gram melksuur per 100 mℓ melk, by toepassing van die toets wat in paragraaf 8 van Aanhangsel A beskryf word;

(bb) na inkubasie enige tekens van koagulasie of opgeblaasde houers toon;

(iii) nie in 'n hermeties verseëlde houer verpak is wanneer dit aan die eindverbruiker verkoop word nie.

7. Behoudens die bepalings van die Wet mag niemand 'n suiwelproduk of saamgestelde suiwelproduk verkoop nie wat—

(a) die volgende bevat:

(i) Antibiotika of ander antimikrobiese stowwe in hoeveelhede wat die maksimum residuvlakke oorskry wat in die Regulasies betreffende die Maksimum Perke vir Veterinêre Medisyne- en veemiddelresidu's bepaal is of wat uit hoofde van 'n aanwysende toets vermoedelik antibiotika of ander antimikrobiese stowwe bevat in hoeveelhede wat die maksimum residuvlakke oorskry;

(ii) patogene organismes, vreemde stof of enige ontstekingsproduk of ander stof wat om die een of ander rede sodanige produk ongeskik vir menslike verbruik kan maak;

(b) in die geval van melkpoeier of afgeroomde melkpoeier meer as 50 000 kolonievormende eenhede per gram bevat by toepassing van die standaardplaattellingtoets wat in paragraaf 7 van Aanhangsel A beskryf word;

(c) met uitsondering van rypgemaakte kaas—

(i) by uitvoering van die toets wat in paragraaf 4 van Aanhansel A beskryf word, of die toets in "International Standard IDF 73A:1985" beskryf, 50 kolivorme bakterieë per 1,0 mℓ vloeistof of 1,0 g vaste of halfvaste produk oorskry;

(ii) by uitvoering van die gewysigde Eijkmanntoets of die VRB-MUG-agarmetode, wat onderskeidelik in paragrawe 2 en 5 van Aanhangsel A beskryf word, enige *Escherichia coli* per 1,0 mℓ vloeistof of 1,0 g vaste of halfvaste produk blyk te bevat;

(d) in die geval van rypgemaakte kaas—

(i) by uitvoering van die toets wat in paragraaf 4 van Aanhangsel A beskryf word, of die toets in "International Standard IDF 73A:1985" beskryf, 1 000 kolivorme bakterieë per 1,0 g van die produk bevat;

(ii) by uitvoering van die gewysigde Eijkmanntoets of die VRB-MUG-agarmetode, wat onderskeidelik in paragrawe 2 en 5 van Aanhangsel A beskryf word, enige *Escherichia coli* per 1,0 mℓ vloeistof of 1,0 g vaste of halfvaste produk blyk te bevat;

(e) nie in 'n hermeties verseëlde verpakking of geslote verpakking verpak is nie.

8. Niemand mag 'n suiwelproduk of saamgestelde suiwelproduk verkoop wat 'n voedseladditief bevat wat nie by regulasie veroorloof is nie.

9. Niemand mag melk, room of 'n suiwelproduk verkoop wat nie afkomstig is van die melkklier(e) van lakterende beeste, bokke of skape nie tensy dit geëtiketteer is volgens die vereistes van die Regulasies betreffende die Etikettering en Advertering van Voedingsmiddels uitgevaardig kragtens die Wet.

10. Geen gepasteuriseerde melk, gepasteuriseerde room of gepasteuriseerde hersaamgestelde (aangemaakte) melk wat na die melkprosesseringsaanleg teruggestuur is, mag weer verkoop word of vir herverkope geprosesseer word nie.

11. Ter beslissing van die vraag of die melk, suiwelprodukte en saamgestelde suiwelprodukte aan die vereistes van regulasies 2, 4, 5, 6 en 7 voldoen, word die daarin voorgeskrewe toetse uitgevoer en hierdie toetse is vir genoemde doeleindes afdoende.

Herroeping van regulasies

12. Die regulasies afgekondig by Goewermentskennisgewing No. R. 258 van 8 Februarie 1985, soos gewysig by Goewermentskennisgewing No. R. 2706 van 15 November 1991, word hierby herroep.

AANHANGSEL A

METODES VIR DIE TOETS VAN MELK, ROOM EN SUIWELPRODUKTE

1. (1) (a) Die toetse wat in Aanhangsel A uiteengesit word, moet in toepaslike gevalle uitgevoer word ten einde die geskiktheid van melk, room en suiwelprodukte vir menslike verbruik te bepaal. Monsters moet nie gevries word nie, maar by 'n temperatuur benede 5 °C bewaar word en binne 48 uur nadat dit geneem is, getoets word: Met dien verstande dat hierdie vereistes nie van toepassing is op gedroogde suiwelprodukte, gesteriliseerde melk, UHT-melk en gekondenseerde suiwelprodukte in hul onoopgemaakte houers nie.

(b) By die toepassing van Aanhangsel A beteken "melk" ook melk wat gepasteuriseer of gesteriliseer is of aan ultrahoëtemperatuurbehandeling onderwerp is, asook room.

MIKROBIOLOGIESE TOETSE

(2) (a) Alle gedistilleerde water wat vir die bereiding van media gebruik word, moet glasgedistilleerd of van gelykwaardige suiwerheid wees.

(b) Alle glasware wat gebruik word vir die toetse wat in hierdie Aanhangsel voorgeskryf word, moet steriel wees.

(c) Die steriliteit van alle glasware, media en verdunningsmiddels moet nagegaan word deur—

(i) verteenwoordigende kontrolebuise, -plate en groeimedia wat met elke reeks toetse gebruik word, te toets;

(ii) die groeimedium te gebruik wat in hierdie Aanhangsel genoem word.

(d) Alle pipette van die uitblaastipe moet van 'n geskikte nie-absorberende watteprop voorsien wees.

(e) Alle glasware wat vir volumetriese meting gebruik word, moet 'n akkuraatheidsgraad hê minstens gelykstaande met Graad B van die Nasionale Fisiese Navorsingslaboratorium.

(f) Alle chemikalieë wat gebruik word by die bereiding van die oplossings en media wat in hierdie Aanhangsel genoem word, moet, tensy anders voorgeskryf, van 'n analitiesereagensgraad wees of van 'n graad wat geskik is vir die bereiding van bakteriologiese media.

(g) Daar kan, in plaas van die media wat voorgeskryf word, geskikte ontwaterde kultuurmedia gebruik word indien sodanige preparate beskikbaar is: Met dien verstande dat sodanige ontwaterde media met die gegewe beskrywing ooreenstem en gelykwaardige resultate lewer: Met dien verstande voorts dat die peptoon, galsoute, triptoon, gisekstrak en beesgal wat gebruik word, van 'n standaard moet wees gelykstaande met die verwysingstandaard wat deur die Suid-Afrikaanse Buro vir Standaarde gehou word.

(h) Die verteenwoordigende melkmonsters moet met steriele toerusting geneem word en in steriele monsterhouers wat dig kan sluit, geplaas word, en daar moet voorsorg getref word dat die monsters nie gekontamineer raak nie. Sodanige monsterhouers moet toegemaak word en, indien die toets nie binne 15 minute nadat die monster geneem is 'n aanvang neem nie, omring word met gebreekte ys of 'n ander geskikte koelmiddel wat die temperatuur van die monsters binne 30 minute kan laan daal tot benede 5 °C en dit onbevrore by daardie temperatuur kan hou.

Gewysigde Eijkmann-toets vir *Escherichia coli*

2. (1) Die gewysigde Eijkmann-toets moet uitgevoer word soos dit in onderstaande subparagrawe uiteengesit word.

(2) Meng die monster melk of room deeglik, en as die room te dik is vir maklike hantering, verhit dit tot 'n temperatuur van hoogstens 37 °C.

(3) Nadat al die nodige voorsorgmaatreëls getref is om kontaminasie van die monster te voorkom, inokuleer met behulp van 'n 1 mℓ-pipet die inhoud van drie buise wat 10 mℓ (m/v) briljante groen galboeljon bevat en wat van 'n omgekeerde Durham-fermentasiebuisie vir gasopsporing voorsien is, met die ekwivalent van 0,01 mℓ in die geval van rou melk bestem vir pasteurisasie en 1 mℓ in die geval van gepasteuriseerde melk, hersaamgestelde (aangemaakte) melk, gepasteuriseerde room en aangesuurde suiwelprodukte. In die geval van vaste of halfvaste suiwelprodukte, inokuleer die buise wat dubbelsterkte briljante groen galboeljon bevat met 10 mℓ van 'n 1:10-verdunning van die suiwelproduk.

(4) Vir die meet van die hoeveelhede van 0,01 mℓ wat in die geval van melk getoets moet word, berei desimale verdunnings voor volgens die standaard plaattellingmetode wat in paragraaf 7 (1) (a) en (b) beskryf word, en vervang 11,0 g melkpoeier of afgeroomde melkpoeier deur 11,0 mℓ melk.

(5) Inkubeer die geïnokuleerde briljante groen galboeljon 48 uur lank in 'n waterbad waarvan die temperatuur op 44 °C ± 0,25 °C gehou word.

(6) As die inkubasie voorgeskryf in subparagraaf (5) aanleiding gee tot die vorming van gas soos waargeneem in die Durham-buis, moet daar uit elke buis met briljante groen galboeljon waarin gas gevorm het, 'n inokulum van 0,2 mℓ na 'n afsonderlike buis met triptoonwater oorgedra word.

(7) Inkubeer die buise met triptoonwater genoem in subparagraaf (6) vir 24 ± 2 uur lank by 44 °C ± 0,25 °C in die waterbad wat in subparagraaf (5) genoem word.

(8) Om te bepaal of daar indool gevorm het, toets die triptoonwater in die buise na verloop van genoemde 24 ± 2 uur deur 0,5 mℓ Kovac-reagens daarby te voeg.

(9) As daar 'n rooskleurige ring by die tussenvlak van die twee vloeistowwe vorm, is dit 'n aanduiding dat daar indool aanwesig is.

(10) 'n Positiewe resultaat vir gas en indool in enige van die drie buise wat met die voorgeskrewe volume van dieselfde melk geïnokuleer is, word beskou as 'n aanduiding dat daar *Escherichia coli* aanwesig is.

(11) Berei die (m/v) briljante groen galboeljon, die triptoonwater en die Kovac-reagens soos volg:

(a) (i) Die briljante groen galboeljon moet soos volg saamgestel wees:

Osgal	20 g
Peptoon	10 g
Laktose	10 g
1 persent (m/v) waterige oplossing van briljante groen	1,3 mℓ
Gedistilleerde water	1ℓ

(ii) Los die bestanddele in die gedistilleerde water op.

(iii) Reguleer die pH tot 'n waarde van 7,2 tot 7,4.

(iv) Verdeel die medium in 10 mℓ-hoeveelhede tussen die toetsbuise wat 'n omgekeerde Durham-fermentasiebuis bevat en steriliseer hulle minstens 15 minute lank by 121 °C in 'n outoklaaf.

(v) Om dubbelsterkte briljante groen galboeljon te berei, gebruik die helfte van die hoeveelheid gedistilleerde water.

(b) (i) Die triptoonwater moet soos volg saamgestel wees:

Triptoon	10 g
Natriumchloried	5 g
Gedistilleerde water	tot by 1ℓ

(ii) Los die bestanddele in die gedistilleerde water op deur dit effens te verhit.

(iii) Verkoel tot 20–25°C en reguleer die pH met natriumhidroksiedoplossing of soutsuuroplossing totdat dit tussen 7,4 en 7,5 is.

(iv) Maak die medium op in hoeveelhede van 5 mℓ in proefbuise. Verhit die aldus opgemaakte medium minstens 15 minute lank by 121 °C in 'n outoklaaf.

(c) (i) Die Kovac-reagens moet soos volg saamgestel wees:

Paradimetielaminobensaldehied	5 g
Gekonsentreerde soutsuur	25 mℓ
Amielalkohol (piridienvry)	75 mℓ

(ii) Los die paradimetielaminobensaldehied in die amielalkohol op en voeg dan die soutsuur by.

(iii) Die reagens moet, as dit klaar berei is, geel van kleur wees.

(iv) Plaas die reagens in 'n houer van amberkleurige glas met 'n prop op en bêre op 'n koel, donker plek.

(v) Die reagens moet nie binne 24 uur nadat dit berei is, gebruik word nie.

Aschaffenburg-en-Mullen-fosfatasetoets

3. (1) Die fosfatasetoets moet uitgevoer word soos dit in onderstaande subparagrawe uiteengesit word.

(2) Toets elke monster so gou doenlik nadat dit in die laboratorium aangekom het.

(3) As 'n monster nie dadelik nadat dit in die laboratorium aangekom het, getoets word nie, moet dit by 'n temperatuur benede 5 °C, maar onbevrore, gehou word totdat dit getoets word.

(4) Verhoog die temperatuur van die monster tot 20–25 °C onmiddellik voordat dit getoets word.

(5) Tref die volgende voorsorgmaatreëls gedurende of in verband met die toets van 'n monster;

(a) Met die uitsondering van aangesuurde suiwelprodukte, moet 'n monster wat tekens van bederf of suurheid toon, nie getoets word nie.

(b) Gebruik 'n skoon pipet vir elke monster melk of room en sorg dat geen pipet met speeksel gekontamineer word nie.

(c) Moenie die toets in direkte sonlig uitvoer nie.

(d) Gebruik deurgaans in die toets slegs gedistilleerde water.

(6) Gebruik waar moontlik reagense van analitiese gehalte vir hierdie toets. Berei die buffersubstraatoplossing soos volg:

(a) Die bufferoplossing: Los 3,5 g anhidriese natriumkarbonaat en 1,5 g natriumbikarbonaat in gedistilleerde water op en voeg water by totdat daar 1 ℓ van die oplossing in 'n maatfles is.

(b) Hou die soliede substraat, dinatrium-p-nitrofenielfosfaat, in 'n koelkas.

(c) Die buffersubstraatoplossing:

(i) Plaas 150 mg van die substraat in 'n standaard volumetriese maatfles van 100 mℓ en vul die fles met die buffeloplossing tot by die 100 mℓ-merk.

(ii) Hou die oplossing in 'n koelkas en beskerm dit teen lig.

(iii) Wanneer gedistilleerde water vir vergelykingsdoeleindes gebruik word, moet die oplossing 'n lesing gee laer as die standaard van 10 op die vergelykerskyf APTW 5 of APTW 7 as dit deur 'n sel van 25 mm in die veeldoelvergelyker in deurgelate lig beskou word.

(iv) Moenie die oplossing langer as een week gebruik nie.

(7) Gebruik ondergenoemde apparaat vir toets:

(a) 'n Lovibond-veeldoelvergelyker met 'n staander vir werk in weerkaatste lig.

(b) 'n Loviband-vergelykerskyf APTW 5 of APTW 7.

(c) Twee selle van saamgesmelte glas, 25 mm diep, of proefbuise van kleurlose glas, met 'n binnedeursnee van 13,5 mm ooreenkomstig BS 625, met nie-p-nitrofenolbevattende proppe vir gebruik in die Lovibond 1 000-veeldoelvergelyker.

(d) 'n Waterbad waarvan die temperatuur op 37 °C ± 0,5 °C gehandhaaf kan word.

(e) 'n Pipet met 'n houvermoë van 5,0 mℓ.

(f) 'n Voorraad regafpipette met 'n houvermoë van 1,0 mℓ.

(g) 'n Maatfles met 'n houvermoë van 1 ℓ.

(h) 'n Standaardmaatfles met 'n houvermoë van 100 mℓ.

(8) (a) Maak elke proefbuis leeg nadat dit gebruik is, spoel dit in water af, was dit deeglik in warm water wat soda bevat, spoel dit in warm water en dan in gedistilleerde water af en maak dit droog, of maak dit skoon volgens 'n ander metode wat net so doeltreffend is.

(b) As 'n proefbuis, nadat dit volgens (a) van hierdie subparagraaf behandel is, nie skoon lyk nie, herhaal nie behandeling, maar plaas dit hierbenewens, nadat dit in warm water afgespoel is, in soutsuur, spoel dit weer in warm water en daarna in gedistilleerde water af en maak dit droog, of maak dit skoon volgens 'n ander metode wat net so doeltreffend is.

(c) Reinig nuwe glasware deur dit te dompel in 'n chroomsuuroplossing wat bestaan uit vyf volumes kaliumdichromaat van 8% (m/v) en vier volumes gekonsentreerde swaelsuur wat stadig en versigtig by die mengsel van dichromaat en water gevoeg moet word.

(d) Hou die oplossing genoem in (c) van hierdie subparagraaf bedek en gooi dit weg as dit groen word.

(e) Nadat nuwe glasware gereinig is soos hierbo beskryf, moet dit in warm water en daarna in gedistilleerde water afgespoel en dan drooggemaak word.

(f) Spoel pipette goed af in koue water en reinig dit daarna deur die 24 uur lank te laat lê in 'n chroomsuuroplossing in 'n glassilinder of ander geskikte houer wat 250 mℓ hou; spoel dit daarna deeglik in warm water en dan in gedistilleerde water af en maak dit droog, of maak dit skoon volgens 'n ander metode wat net so doeltreffend is.

(g) Glasware wat vir die toets gebruik word, moet vir geen ander doel gebruik word nie en moet apart van alle ander apparaat in die laboratorium gehou word.

(9) Die toets moet uitgevoer word op die wyse hieronder uiteengesit:

(a) Dra 5 mℓ van die buffersubstraatoplossing deur middel van 'n pipet oor na 'n proefbuis, maak die proefbuis met 'n prop toe en verhit die inhoud tot by 'n temperatuur van 37 °C ± 0,5 °C.

(b) Voeg hierby 1 mℓ van die melk of room wat getoets gaan word, sit die prop van die proefbuis weer op en meng die inhoud daarvan deeglik deur dit te skud.

(c) Inkubeer die proefbuis daarna 2 uur ± 1 minuut lank by 37 °C ± 0,5 °C.

(d) Inkubeer met elke reeks monsters een kontrolemonster wat berei is uit 5 mℓ buffersubstraatoplossing en 1 mℓ gekookte melk of room van dieselfde tipe as dié wat getoets word.

(e) Haal die proefbuis na die inkubasie uit die waterbad en meng die inhoud daarvan deeglik.

(f) Plaas die kontrolemonster op die linkerkantste en die toetsmonster op die regterkantste kompartement van die staander.

(g) Neem die lesings in weerkaatste lig deur af te kyk op die twee openinge, met die vergelyker in die rigting van toereikende daglig gekeer.

(h) As kunsmatige lig vir vergelykingsdoeleindes nodig is, gebruik dagligtipe beligting.

(i) Draai die skyf totdat die kleur van die toetsmonster met dié van die kontrolemonster ooreenstem.

(j) Teken die lesing tussen twee standaard stande aan deur 'n plus- of minusteken by die syfer vir die naaste standaard stand te trek.

TOETS VIR KOLIVORME BAKTERIEË

4. (1) Die toets vir kolivorme bakterieë in melk, hersaamgestelde (aangemaakte) melk, gepasteuriseerde melk, gepasteuriseerde room en suiwelprodukte moet uitgevoer word soos hieronder uiteengesit, of deur gebruik te maak van die VRB-MUG-agarmetode wat in paragraaf 5 van Aanhangsel A beskryf word.

(2) Meng die melk, room of suiwelprodukte deeglik alvorens monsters uit grootmaat geneem word.

(3) (a) Meng die monsters melk, afgeroomde melk, karringmelk of room deeglik. Indien die room te dik is vir maklike hantering, kan dit verhit word na 'n temperatuur van hoogstens 37 °C. Berei die 1:10 verdunning (m/m) deur 1 mℓ van die produk by 9 mℓ van die steriele verdunner (fosfaatbuffer of peptoonsalienoplossing) te voeg of 11 mℓ van die produk by 99 mℓ van die verdunner te voeg (paragraaf 7).

(b) Meng viskeuse of halfvaste aangesuurde suiwelprodukte deeglik en plaas 11 g van die gemengde produk in 'n steriele wyebekhouer. Voeg 99 mℓ verhitte (40 °C) steriele 2% (m/v)-natriumsitraatoplossing by en skud die mengsel totdat dit egalig vermeng is. Dit lewer die 1:10-verdunning (m/m) van die produk. Berei verdere tienvoudige verdunnings in die steriele verdunner (paragraaf 7).

(4) Die mees waarskynlike getal (MWG) kolivorme bakterieë moet soos volg bepaal word:

(a) Inokuleer drie buise wat elk 10 mℓ dubbelsterkte briljante groen galboeljon soos beskryf in paragraaf 2 (11) (a) (i) tot (v) en 'n Durham-buis bevat met 10 mℓ van die 1:10-verdunning van die produk. Hierdie inokulasie stem ooreen met 1 g of met 1 mℓ van die produkmonster in elke buis.

(b) Inokuleer drie buise wat elk 10 mℓ enkelsterkte briljante groen galboeljon en 'n Durham-buis bevat met 1 mℓ van die 1:10-verdunning van die produk. Hierdie inokulasie stem ooreen met 0,1 g of 0,1 mℓ van die monster in elke buis.

(c) Inokuleer drie buise wat elk 10 mℓ enkelsterkte briljante groen galboeljon en 'n Durham-buis bevat met 1 mℓ van die 1:100-verdunning of 0,1 mℓ van die 1:10-verdunning van die produk. Hierdie inokulasie stem ooreen met 0,01 g of 0,01 mℓ van die monster in elke buis.

(d) Meng versigtig en maak seker dat geen lugblasies in die Durham-buise ingaan nie.

(e) Gaan na die bereiding van die eerste verdunnings sonder versuim voort met die bereiding van verdere verdunnings en inokulasies.

(f) Inkubeer die geïnokuleerde buise 48 ± 2 uur lank by 30 °C ± 1 °C.

(g) 'n Buis wat 'n genoegsame hoeveelheid gas bevat om die konkaafgedeelte van die Durham-buis te vul, word as positief aangeteken. 'n Positiewe resultaat word ook aangeteken as die Durham-buis minder gas in het as genoemde hoeveelheid maar opbruising plaasvind as die kant van die buis getik word. Teken die getal positiewe resultate aan.

(h) In die geval van vrugtejogurt en ander produkte wat 'n ander fermenteerbare stof as laktose bevat, moet die teenwoordigheid van laktosefermenteerders bevestig word deur een lus vol van elke buis wat gasvorming toon, oor te dra na skoon buise met enkelsterkte briljante groen galboeljon en inkubeer hierdie buise 48 ± 2 uur by 30 °C ± 1 °C en ondersoek vir gasvorming.

(i) Die getal positiewe buise (na bevestiging, in die geval van produkte wat ander fermenteerbare stowwe as laktose bevat) vir elke verdunning word gebruik vir die bepaling van die MGW aan kolivorme bakterieë per 1,0 g of 1,0 mℓ van die produk ooreenkomstig die volgende tabel:

	Getal positiewe buise			MWG van Kolivorme bakterieë	Getal positiewe buise			KWG van Kolivorme bakterieë
	1,0 g of 1,0 mℓ	0,1 g of 0,1 mℓ	0,01 g of 0,01 mℓ	1,0 g of 1,0 mℓ	1,0 g of 1,0 mℓ	0,1 g of 0,1 mℓ	0,01 g of 0,01 mℓ	1,0 g of 1,0 mℓ
	0	0	0	0,0	2	2	2	3,5
	0	0	1	0,3	2	2	3	4,0
	0	1	0	0,3	2	3	0	3,0
	0	1	1	0,6	2	3	1	3,5
	0	2	0	0,6	2	3	2	4,0
	1	0	0	0,4	3	0	0	2,5
	1	0	1	0,7	3	0	1	4,0
	1	0	2	1,1	3	0	2	6,5
	1	1	0	0,7	3	1	0	4,5
	1	1	1	1,1	3	1	1	7,5
	1	2	0	1,1	3	1	2	11,4
	1	2	1	1,5	3	1	3	16,0
	1	3	0	1,6	3	2	0	9,5
	2	0	0	0,9	3	2	1	15,0
	2	0	1	1,4	3	2	2	20,0
	2	0	2	2,0	3	2	3	30,0
	2	1	0	1,5	3	3	0	25,0
	2	1	1	2,0	3	3	1	45,0
	2	1	2	3,0	3	3	2	110,0
	2	2	0	2,0	3	3	3	> 110,0
	2	2	1	3,0	3	3	3	> 110,0

(5) Aangesuurde produkte met ontwikkelde suur moet binne 48 uur na vervaardiging getoets word.

Violetrooigal-MUG-Agartoets vir kolivormiges en *Escherichia coli*

5. (1) Die toets vir kolivorme organismes en die toets vir *Escherichia coli* in melk, hersaamgestelde (aangemaakte) melk, gepasteuriseerde melk, gepasteuriseerde room en suiwelprodukte moet uitgevoer word soos dit in onderstaande subparagrawe uiteengesit word.

(2) Die monsters word soos volg berei:

(a) Meng die monsters melk, afgeroomde melk, karringmelk of room deeglik. Indien die room te dik is vir maklike hantering, kan dit verhit word tot by 'n temperatuur van hoogstens 37 °C. Berei die 1:10-verdunning (m/m) deur 1 mℓ van die produk by 9 mℓ van die steriele verdunner te voeg of deur 11 mℓ van die produk by 99 mℓ van die verdunner te voeg.

(b) Meng die viskeuse of halfvaste aangesuurde suiwelprodukte deeglik en plaas 11 g van die produk in die steriele wyebekhouer. Voeg 99 mℓ verhitte (40 °C) steriele 2% (m/v)-natriumsitraatoplossing by en skud die mengsel totdat dit egalig vermeng is. Dit is die 1:10-verdunning (m/m) van die produk. Berei verdere tienvoudige verdunnings in die steriele verdunner.

(3) Die violetrooigalagar word soos volg berei:

	g/ℓ
Brein-hart-aftreksel	7,0
Peptoon	4,0
Laktose	9,0
Galsoute No. 3	1,5
Neutrale rooi	0,03
Kristalviolet	0,002
MUG (4-metielumbellieferiel-B-D-glukuronied)	0,1
Natriumchloried	4,5
Dinatriumfosfaat	1,0
Agar	13,0*

*Voeg die MUG-reagens volgens die vervaardiger se voorskrifte by indien dit nie alreeds by die media ingesluit is nie.

Let wel: (i) Die monsters moet nie in direkte sonlig berei word nie; en

(ii) normale aseptiese voorsorgmaatreëls moet wanneer nodig getref word.

(4) Die toets word soos volg uitgevoer:

(a) Berei verdunnings sodat plate met kolonietellings van meer as 10, indien moontlik, en minder as 150 verkry word. In die geval van melk en vloeibare suiwelprodukte moet seker gemaak word dat die mikro-organismes in die toetsmonster so eweredig moontlik versprei word deur die monster 25 maal om te keer: Indien skuim vorm, moet dit toegelaat word om te versprei. Die tydsverloop tussen die meng van die monster en die verwydering van die toetsporsie moet hoogstens drie minute wees.

Suig met 'n steriele pipet 1 mℓ van die toetsmonster op en voeg dit by 9 mℓ van die verdunner (of 10 mℓ van die toetsmonsters by 90 mℓ van die verdunner, of 11 mℓ van die toetsmonster by 99 mℓ van die verdunner). Skud hierdie primêre verdunning deeglik. Op dié wyse word 'n verdunning van 10^{-1} verkry.

(b) Berei nou verdere verdunnings deur met 'n steriele pipet 1 mℓ van die primêre verdunning na 'n ander proefbuis wat 9 mℓ steriele verdunner bevat, oor te dra sonder om met die pipet aan die verdunner te raak. 'n Skoon pipet moet vir elke verdunning gebruik word.

So nie, kan 10 mℓ van die primêre verdunning na 'n bottel met 90 mℓ van die steriele verdunner oorgedra word of 11 mℓ van die primêre verdunning na 99 mℓ van die steriele verdunner.

Meng die verdunnings deeglik deur dit 10 keer met 'n skoon pipet op te suig of deur dit vir 5 tot 10 sekondes meganies te meng om die verdunning van die 10^{-2} te verkry. Die rotasiefrekwensie moet in die geval van meganiese menging sodanig wees dat die vloeistof twee tot drie sentimeter teen die kant van die houer opbeweeg terwyl dit gemeng word. Indien nodig, moet hierdie prosedure herhaal word deur gebruik te maak van die verdunning van 10^{-2} en verdere verdunnings om die verdunnings van 10^{-3}, 10^{-4} ensovoorts te verkry totdat die geskikte aantal mikro-organismes verkry is.

Let wel: Die tydsverloop tussen die aanvanklike meting van die toetsporsie, die bereiding van die primêre verdunning en die menging van die verdunnings en mediums moet nie langer as 15 minute wees nie.

(c) Gebruik 'n pipet om 1 mℓ van die vloeibare produk of die toepaslike verdunnings na die middel van twee petribakkies oor te dra. Raak met die punt van die pipet aan 'n droë area in die bakkie. Gebruik 'n skoon pipet om elke verdunning te inokuleer.

(d) Giet ongeveer 15 mℓ van die VRB-MUG-agar by 45 °C ± 1 °C in elke petribakkie. Meng onmiddellik na gieting deur die petribakkie genoegsaam te roteer ten einde eweredig verspreide kolonies na inkubasie te verkry. Laat toe om te stol op 'n koel horisontale vlak.

Na volledige stolling, giet ongeveer 4 mℓ van die VRB-agar by 45 °C ± 1 °C op die oppervlak van die geïnokuleerde medium en laat toe om te stol. Berei 'n kontrolebakkie met 15 mℓ van die medium voor om die steriliteit daarvan te kontroleer.

Let wel: Ten einde seker te maak dat die temperatuur van die medium 45 °C ± 1 °C is voordat dit gegiet word, plaas 'n termometer in 'n 1,5%-agaroplossingporsie in 'n aparte houer wat identies is aan dié wat vir die medium gebruik word. Hierdie kontroleporsie moet aan dieselfde verhitting en verkoeling as die medium blootgestel word.

(e) Inkubeer die plate in 'n onderstebo posisie. Moenie meer as ses opmekaar stapel nie. Die stapels plate moet van mekaar en van die kante en die bokant van die inkubator geskei wees. Inkubeer vir 24 ± 2 uur by 30 °C ± 1 °C.

(f) Bestudeer die plate onder 'n 366 nm ultraviolet lig. Al die kolonies wat in die omliggende medium blou fluoresseer, word getel. Bestudeer daarna die plate onder gewone lig en tel die kolivormige organismes. Selekteer die plate wat meer as 10 en minder as 150 kolonies bevat. Tel die donkerrooi kolonies wat 'n diameter van minstens 0,5 mm het — dit is kenmerkend van kolivormige organismes. Hierdie donker pienk tot rooi kolonies word gewoonlik deur 'n rooi sone in die medium omring. Bevestig die telling deur die prosedure te volg wat in subparagraaf (g) beskryf word. Bereken die getal kolivorme organismes per gram of per milliliter, met inagneming van die resultaat van die bevestigingstoets. Vyf of meer fluoresserende kolonies word as positief vir *Escherichia coli* beskou.

(g) Die bevestigingstoets word gedoen deur vyf kolonies van elke tipe, indien beskikbaar, in buise wat 'n Durham-buis en briljante groen laktosegalboeljon bevat, te inokuleer en vir 24 ± 2 uur by 30 °C ± 1 °C te inkubeer. Die kolonies wat in die Durham-buis gas vorm, moet as kolivorme organismes beskou word.

Die stol-by-kook-toets

6. (1) Meng die melk deeglik voordat 'n monster geneem word.

(2) Giet 5 mℓ melk in 'n proefbuis.

(3) Plaas die buis in kookwater.

(4) Maak seker dat die vlak van die kookwater hoër is as die vlak van die melk.

(5) Laat die proefbuis met melk vyf minute lank in die kookwater staan.

(6) Haal die proefbuis uit die water en hou dit skuins in 'n bykans horisontale posisie sonder om die melk in die buis te skud.

(7) Wat totdat 'n dun vlies op die melk vorm.

(8) Die resultaat is positief indien al die melk in die buis stol of as vlokkies teen die kante van die proefbuis waargeneem word wanneer die buis weer in 'n vertikale posisie gebring word.

Let wel: Kolostrum in melk sal tot 'n positiewe resultaat van die stol-by-kook-toets lei. Ander faktore beïnvloed ook die hittestabiliteit van die melk.

Standaardplaattelling

7. (1) Meng rou melk of gepasteuriseerde melk deeglik onmiddellik voordat 'n monster uit die groot hoeveelheid geneem word:

(a) Die 1:10-verdunning (m/m) van rou of gepasteuriseerde melk word berei soos in paragraaf 4 (3) (a) en (b) van hierdie Aanhangsel beskryf.

(b) In die geval van melkpoeier en afgeroomde melkpoeier word die 1:10-verdunning (m/m) soos volg berei:

Plaas 99 mℓ steriele fosfaatbuffer* in 'n steriele wyebekhouer wat met 'n rubberprop of skroefdop toegerus is en verhit dit tot 47 °C ± 2 °C deur dit in 'n waterbad by dié temperatuur te plaas. Weeg 11 g van die poeier af in 'n steriele aluminiumweegskuitjie of glashouer met 'n rubberprop of skroefprop en verhit dit tot 47 °C ± 2 °C deur dit in 'n waterbad by genoemde temperatuur te plaas.

Voeg die poeier vinnig by die warm verdunner en draai die verdunningsbottel stadig om die poeier nat te maak. Skud die bottel daarna 25 keer met op-en-af-bewegings van 300 mm. Plaas die bottel nog vyf minute lank terug in die waterbad en skud dit met tussenposes. Om hersamestelling van die poeier te vergemaklik, kan 'n paar gram steriele glaskrale by die verdunner gevoeg word. Berei addisionele tienvoudige verdunnings in steriele verdunner (by kamertemperatuur) na gelang dit nodig is.

(2) Dra met behulp van 'n skoon pipet 1 mℓ van elk van die verdunnings minstens in tweevoud na steriele petribakkies oor deur met die hoogste konsentrasie te begin en met die laagste te eindig.

(3) Giet 10 mℓ van die standaard plaattellingagar** wat vooraf gesmelt en tot 45 °C ± 1 °C afgekoel is, in elke bakkie.

(4) Meng die inhoud van elke bakkie deeglik deur middel van horisontale draaibewegings terwyl die medium nog vloeibaar is.

(5) Keer die bakkies om sodra die medium stol, en inkubeer 72 ± 2 uur lank by 30 °C ± 1 °C.

(6) Verwyder die bakkies uit die broeikas by verstryking van die inkubasieperiode en tel die kolonievormende eenhede (KVE's) onder egalige kunsmatige beligting met behulp van vergroting.

(7) Om die KVE van elke bakkie te tel, word spreiervrye bakkies wat 30–300 KVE's bevat, gebruik; tel al die KVE's en bereken die getal KVE's per mℓ of per gram.

(8) As die getal KVE's van elke bakkie meer as 300 is, word die KVE's op dele van die bakkie wat verteenwoordigend van die KVE-verspreiding is, getel, en word die totale getal vir elke bakkie daarvolgens bepaal. Gaan voort soos in (7) hierbo, maar teken aan as "beraamde" plaattelling.

* **Verdunners:**

Fosfaatbufferoplossing

Kaliumdiwaterstofortofosfaat	5,08 g
Dinatriumwaterstofortofosfaat	13,63 g
in 2 ℓ gedistilleerde water	

OF

Peptoonsalienoplossing

Peptoon	1,0 g
Natriumchloried	8,5 g
in 1 ℓ gedistilleerde water	

Los die komponente op in die water en verhit indien nodig. Pas die pH aan sodat dit, na sterilisasie, 7,0 ± 0,1 by 25 °C is.

** **Plaattellingagar**

Triptoon (pankreatiese verteringsproduk van kaseïen)	5 g
Gisekstrak	2,5 g
Glukose	1 g
Agar (bakteriegraad)	15 g
Gedistilleerde water	1 ℓ
Finale pH van gesteriliseerde medium	7,0 ± 0,1

Steriliseer minstens 15 minute lank by 121 °C.

Titreerbare suurheid

8. (1) Pipetteer 9 mℓ melk in 'n wit bakkie.

(2) Voeg óf 10 druppels óf 0,5 mℓ van 'n 1,6%-fenolftaleïenindikatoroplossing in 50% etanol by die melk.

(3) Titreer met 0,1 N NaOH-oplossing totdat die eerste pienk tint verskyn wat 30 sekondes lank so bly.

(4) Om die titreerbare suurheid van die melk as die persentasie melksuur uit te druk, moet die getal milliliters 0,1 N NaOH wat in die toets gebruik word, deur 10 gedeel word.

Etanolstabiliteitstoets

9. Meng een volume van 68% (v/v) vloeibare etanol met een volume melk of room. As daar geen tekens van koagulasie is nie, word die melk of room geag aan die etanolstabiliteitstoets te voldoen.

Droë gerehidreerde film-metode vir standaardkolonietelling

10. (1) Meng melk deeglik voordat 'n monster uit die groot hoeveelheid geneem word.

(2) Berei 'n 1:10-verdunning deur 1 mℓ melk by 9 mℓ steriele fosfaatbuffer te voeg. Meng goed. Berei 'n 1:100-verdunning deur 1 mℓ van die 1:10-verdunning by 9 mℓ steriele fosfaatbuffer te voeg. Meng goed. Berei 'n 1:1 000-verdunning deur 1mℓ van die 1:100-verdunning by 9 mℓ steriele fosfaatbuffer te voeg. Die finale pH moet tussen 6,6 en 7,4 wees.

(3) Plaas die films vir aërobiese bakteriese telling op 'n plat oppervlak en merk hulle. Lig die boonste film op en dra 1 mℓ van die 1:1 000-verdunning versigtig oor na die middel van die onderste film deur die pipet loodreg met die film te hou. Los die boonste film en laat dit op die monster val. Herhaal die proses met die 1:100-verdunning van die monster.

(4) Versprei die monster eweredig op die film deur ligte afwaartse drukking met 'n verspreider toe te pas. Verwyder die verspreider en laat film vir een minuut ongesteurd om te stol.

(5) Stapel die films opmekaar in hopies van hoogstens 20 en inkubeer vir 48 ± 2 uur met die deurskynende kante na bo by 32 °C ± 1 °C.

(6) Verwyder die films uit die inkubator na verstryking van die inkubasietydperk en tel die kolonievormende eenhede (KVE's) met behulp van vergroting onder egalige, kunsmatige beligting soos volg:

(a) Al die rooi kolonies, ongeag hulle grootte of intensiteit, moet getel word. Films met 25–250 KVE's moet getel word. Bereken die getal lewensvatbare bakterieë per milliliter melk.

(b) 'n Beraamde telling kan gemaak word op films met KVE's van meer as 250 deur ten minste vier blokkies of 20 persent van die groei-area van die film te tel. Bereken die aantal lewensvatbare bakterieë per milliliter melk en teken aan as 'n "beraamde" telling.

(c) Die teenwoordigheid van hoë konsentrasie kolonies bring dat die totale groei-area op die film rooi of pienk verkleur en/of 'n groot aantal bakterieë op die kante van die groei-area groei. Teken dit aan as te veel om te tel (TVTT).

Fosfaatbuffer

Kaliumdiwaterstofortofosfaat	5,08 g
Dinatriumwaterstofortofosfaat in 2 ℓ gedistileerde water	13,63 g

Steriliseer vir 15 minute by 121 °C.

Droë gerehidreerde film vir standaard kolonietelling

	% vaste stowwe op film
Kouewateroplosbare jel	1–10%
Tetrasoliumindikatorkleurstof	<1%
Standaardmetode nutriënte	1–5%

Droë gerehidreerde film-metode vir kolivormiges- en *Escherichia coli*-telling

11. (1) Meng melk deeglik voordat 'n monster uit die groot hoeveelheid geneem word. Die pH moet tussen 6,6 en 7,4 wees.

(2) Plaas die films vir *Escherichia coli*- en kolivormigestellings op 'n plat oppervlak en merk hulle. Lig die boonste film op en dra 1 mℓ van die melk versigtig oor na die middel van die onderste film deur die pipet loodreg met die film te hou.

(3) Laat die boonste film stadig op die monster rol om te voorkom dat lugborrels onder die film vasgevang word.

(4) Versprei die monster eweredig op die film deur ligte afwaartse drukking met 'n verspreider toe te pas. Verwyder die verspreider en laat die film vir een minuut ongesteurd om te stol.

(5) Stapel die films opmekaar in hopies van hoogstens 20 en inkubeer die films vir 24 ± 2 uur, met die deurskynende kante na bo, by 32 °C ± 1 ° C.

(6) Verwyder die films uit die inkubator na verstryking van die inkubasietydperk en tel die kolonies met behulp van vergroting onder egalige kunsmatige beligting soos volg (Herinkubeer die films vir 'n verdere 24 ± 2 uur om addisionele *Escherichia coli*-groei waar te neem):

(a) Blou kolonies wat met gas geassosieer word, is *Escherichia coli* en rooi kolonies wat met gas geassosieer word, is kolivormige kolonies. Kolonies wat nie met gas geassosieer word nie, word nie as kolivormige kolonies getel nie. Al die rooi en blou kolonies met gas verteenwoordig die kolivorme kolonietelling.

(b) Films met 15–150 kolonies moet getel word. Waar 'n film meer as 150 kolonies het, kan 'n geraamde telling gedoen word deur ten minste 4 blokkies of 20 persent van die groei-area te tel. Bereken die aantal lewensvatbare kolivorme kolonies per milliliter melk en rapporteer dit as die "beraamde" kolivorme kolonietelling.

(c) Die teenwoordigheid van baie hoë konsentrasies kolonies bring mee dat die totale groeiarea van die film persblou (met *Escherichia coli)* of rooi (met kolivormiges) verkleur en/of 'n groot aantal klein kolonies en/of klein gasblasies voorkom. Teken dit aan as te veel om te tel (TVTT).

Droë gerehidreerde film vir kolivorme en *Escherichia coli*-kolonietellings

	% vaste stowwe van films
Violetrooigalvoedingstowwe	1–5%
Kouewateroplosbare jel	1–10%
Tetrasoliumindikatorkleurstof	<1%
Glukoronidase-indikator	<1%

AANHANGSEL B

PASTEURISASIE

1. Melk moet gepasteuriseer word—

(a) deur elke deeltjie van die melk tot 'n temperatuur van minstens 63 °C (hoogstens 65,5 °C) te verhit en dit minstens 30 minute lank by dié temperatuur te hou en dan binne 30 minute te verkoel tot 'n temperatuur laer as 5 °C (dié proses word die "houproses" of die "lotproses" genoem); of

(b) deur elke deeltjie van die melk tot 'n temperatuur van minstens 72 °C te verhit en dit minstens 15 sekondes lank by dié temperatuur te hou en dan onmiddellik te verkoel tot 'n temperatuur laer as 5 °C (dié proses word hieronder die "hoëtemperatuursnelproses" genoem); of

(c) volgens 'n ander metode wat by regulasie voorgeskryf word:

Met dien verstande dat melk in geen geval as gepasteuriseer beskou word nie tensy dit voldoen aan die Aschaffenburg-en-Mullen-fosfatasetoets wat in paragraaf 3 van hierdie Aanhangsel beskryf word, of 'n ander toets, mits dit ten opsigte van akkuraatheid met die Aschaffenburg-en-Mullen-fosfatasetoets gelykwaardig is.

2. Room en melk of suiwelprodukte wat bygevoegde versoeters bevat, moet soos volg gepasteuriseer word:

(a) Deur elke deeltjie van die produk tot 'n temperatuur van minstens 66 °C te verhit en dit minstens 30 minute lank by dié temperatuur te hou; of

(b) deur elke deeltjie van die produk tot 'n temperatuur van minstens 74 °C te verhit en dit minstens 15 sekondes lank by dié temperatuur te hou; of

(c) volgens 'n ander metode wat by regulasie voorgeskryf word:

Met dien verstande dat sodanige produk in geen geval as gepasteuriseerd beskou word nie tensy dit voldoen aan die Aschaffenburg-en-Mullen-fosfatasetoets wat in paragraaf 3 van hierdie Aanhangsel beskryf word, of 'n ander toets, mits dit ten opsigte van akkuraatheid met die Aschaffenburg-en-Mullen-fosfatasetoets gelykwaardig is.

3. Die pasteurisasieproses moet, indien dit volgens die hoëtemperatuursnelproses geskied, meganies beheer word wat betref die temperatuurbestek van die melk en die tydperk wat dit by die voorgeskrewe temperatuur gehou word, en die betrokke apparaat moet maandeliks gekalibreer word ten einde die korrektheid van die pasteurisasieproses te verseker.

4. Pasteurisasietemperature moet volgens enige metode termografies geregistreer word en die termografiese aantekeninge moet minstens vier weke behou word.

AANHANGSEL C

PLAASLIKE OWERHEDE IN WIE SE GEBIEDE VAN JURISDIKSIE ROU SUIWELPRODUKTE GELYS IN REGULASIE 3 (1) VERKOOP MAG WORD

DEPARTMENT OF LABOUR
DEPARTEMENT VAN ARBEID

No. R. 1542 **21 November 1997**

NOTICE PUBLISHED BY THE ESSENTIAL SERVICES COMMITTEE

Under section 71 (8) of the Labour Relations Act, 1995 (Act No. 66 of 1995), the essential services committee hereby gives notice that the following computer services provided or supported by the Central Computer Service of the Department of State Expenditure are designated as essential services:

(a) The Persal system;

(b) the social pension system;

(c) the hospital systems; and

(d) the flood control system.

D. PILLAY
Chairperson

No. R. 1542 **21 November 1997**

KENNISGEWING GEPUBLISEER DEUR DIE KOMITEE VIR NOODSAAKLIKE DIENSTE

Kragtens artikel 71 (8) van die Wet op Arbeidsverhoudinge, 1995 (Wet No. 66 van 1995), gee die komitee vir noodsaaklike dienste hierby kennis dat hy die volgende rekenaardienste voorsien of ondersteun deur die Sentrale Rekenaardienste van die Departement van Staatsbesteding as noodsaaklike dienste aangewys het:

(a) Die Persalstelsel;

(b) die maatskaplike pensioenstelsel;

(c) die hospitaalstelsels; en

(d) die vloedbeheerstelsel.

D. PILLAY
Voorsitter

SOUTH AFRICAN REVENUE SERVICE
SUID AFRIKAANSE INKOMSTEDIENS

No. R. 1541 **21 November 1997**

CUSTOMS AND EXCISE ACT, 1964

AMENDMENT OF SCHEDULE No. 2 (No. 2/45)

Under section 56 of the Customs and Excise Act, 1964, Part 1 of Schedule No. 2 to the said Act is hereby amended to the extent set out in Schedule hereto.

T. A. MANUEL
Minister of Finance

SCHEDULE

I	II				III	IV	V	
Item	Tariff Heading	Code	C. D.	Description	Rebate Items	Imported from or Originating in	Rate of Anti-dumping Duty	Anno-tations
206.02				By the substitution for tariff-heading No. 2915.50 of the following:				
	"2915.50	01.06	65	Calcium propionate		Kingdom of the Netherlands	25c/kg	
						Canada	58c/kg	
						United States of America	58c/kg"	

No. R. 1541 **21 November 1997**

DOEANE- EN AKSYNSWET, 1964

WYSIGING VAN BYLAE No. 2 (No. 2/45)

Kragtens artikel 56 van die Doeane- en Aksynswet, 1964, word Deel 1 van Bylae No. 2 by genoemde Wet hiermee gewysig in die mate in die Bylae hierby aangetoon.

T. A. MANUEL

Minister van Finansies

BYLAE

I	II				III	IV	V	
Item	Tarief-pos	Kode	T. S.	Beskrywing	Korting-Items	Ingevoer vanaf of Afkomstig van	Skaal van Anti-dumping reg	Anno-tasies
206.02				Deur tariefpos No. 2915.50 deur die volgende te vervang:				
	"2915.50	01.06	65	Kalsiumpropionaat		Koninkryk van die Nederlande	25c/kg	
						Kanada	58c/kg	
						Verenigde State van Amerika	58c/kg"	

DEPARTMENT OF TRADE AND INDUSTRY

No. R. 1554 **21 November 1997**

IMPORT CONTROL

I, Alec Erwin, in my capacity as Minister of Trade and Industry, and acting under the powers vested in me by section 2 of the Import and Export Control Act, 1963 (Act No. 45 of 1963), hereby amend Schedule 1 of Government Notice No. R. 2582 of 23 December 1988, by—

(a) the deletion of the following descriptions in column (1) and the corresponding tariff headings in column (2):

DEPARTEMENT VAN HANDEL EN NYWERHEID

No. R. 1554 **21 November 1997**

INVOERBEHEER

Ek, Alec Erwin, in my hoedanigheid as Minister van Handel en Nywerheid, en handelende kragtens die bevoegdheid my verleen deur artikel 2 van die Wet op In- en Uitvoerbeheer, 1963 (Wet No. 45 van 1963), wysig hierby Bylae 1 van Goewermentskennisgewing No. R. 2582 van 23 Desember 1988 deur—

(a) die skrapping van die volgende beskrywings in kolom (3) en die tariefposte daarteenoor in kolom (2):

SCHEDULE 1 • BYLAE 1

Description of goods	Tariff Heading Tariefpos	Beskrywing van goedere
Oats	10.04	Hawer
Malt, roaster: of barley	1107.20.20	Mout, gebrand: van gars

A. ERWIN

Minister of Trade and Industry

A. ERWIN

Minister van Handel en Nywerheid

CONTENTS

INHOUD

Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001. Tel 323-9731 x 263, 269 or 273
Gedruk deur en verkrygbaar by die Staatsdrukker, Bosmanstraat, Privaat Sak X85, Pretoria, 0001. Tel. 323-9731 x 263, 269 of 273