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उत्पाद मैनुअल

मलाईरहित दूध पाउडर — विशिष्टि

भाग 2 अतिरिक्त ग्रेड

IS 13334 (भाग 2): 2025 के अनुसार

PRODUCT MANUAL

Skimmed Milk Powder — Specification

Part 2 Extra Grade

ACCORDING TO IS 13334 (Part 2): 2025

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो) अनुरूपता मूल्यांकन (विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	मानक संख्या IS No.	:	IS 13334 (Part 2) : 2025
	शीर्षक Title	:	Skimmed Milk Powder— Specification Part 2 Extra Grade
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Milk intended for production of skimmed milk powder shall be tested for its freedom from Neutralizers, Preservatives and adulterants.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	NA
c)	नमूने का परिमाण Sample Quantity	:	2 x 500 g (separate samples for chemical and microbiological tests) packed in air-tight containers. Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of

		product sample, as far as possible since raw material sample may not be available in market).
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	- Name of the product - Concentration Factor Note: Apart from the above, any other requirements/parameters may also be declared as per the standard, as applicable.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	: Please refer to Annex-A
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	: Please refer to Annex-B
5.	एक दिन में संभावित परीक्षण Possible tests in a day	
	All tests are possible to be carried out in a day except microbiological tests. Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.	
6.	लाइसेंस का दायरा /Scope of the Licence:	
	Licence is granted to use Standard Mark as per IS 13334 (Part 2): 2025 with the following scope:	
	Name of the product	Skimmed Milk Powder- Extra Grade
	Process	Spray drying

BUREAU OF INDIAN STANDARDS
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ANNEX – A

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Sodium Content, Cl 4.8	Analytical balance One-mark volumetric flasks One-mark pipettes Micropipette Graduated measuring cylinder, of capacity 10 ml High-density polyethylene (PE-HD) bottles Silica crucibles Programmable furnace oven Open focused microwave-assisted wet digestion system Pressurized microwave-assisted wet digestion system Decomposition vessels Oven Flame atomic absorption spectrometer Water baths Centrifuge Appropriate grinding device Sieve Nitric acid (HNO₃), concentrated, Nitric acid (HNO₃) solution, Lanthanum tri-chloride solution, Calcium ion stock solution. Sodium ion stock solution Potassium ion stock solution Magnesium ion stock solution Standard working solution, Light petroleum Hydrogen peroxide
2.	Moisture, Cl. 4.7, 4.9 & Table 1	Drying oven capable of being maintained at 87°C±1°C throughout the working space, LC 1°C. -Metal block -Copper tubes -Constant pressure regulator -Tube, made of polycarbonate -Columns made of hard polypropylene -Synthetic stoppers -Container, suitable for holding columns and synthetic stoppers -Rod made of polyvinyl chloride -Soap-film meter, suitable for measuring a flow of 33 ml/min -Dry compressed air, minimum pressure of 200 kPa, moisture content of 0.01 mgH₂O per litre at atmospheric pressure, free of any organic material. Use metal tubes only to connect the source of

		compressed air to the equipment in the drying oven. -Analytical Balance, LC 0.1 mg -Flat bottom moisture dishes with cover -Desiccator Screw capped bottles, Durham tubes, test tubes Sterile blender jar Inoculating loop, platinum-iridium or nickel-chromium or disposable loops Stop watch Volumetric Flask, 100ml, 250 ml & 1000 ml OR <u>Alternate method as per IS 16072</u> Flat-Bottom Moisture Dishes with Cover Drying Oven Desiccator Bottles OR <u>Alternate method as per ISO 21543</u> Near infrared (NIR) instrument as per clause 6.1 Grinding or grating device as per clause 6.2
3.	Milk protein in Milk, Cl. 4.7, 4.9 & Table 1	<u>As per IS 11917</u> Water bath Analytical balance, capable of weighing to the nearest 0,1 mg Burette or automatic pipette Graduated measuring cylinders, of capacity 25 ml, 50 ml, 100 ml and 500 ml. Conical flasks, of capacity 500 ml. Automatic burette, Grinding device Digestion flasks (Kjeldahl) Boiling aids Digestion apparatus Distillation apparatus (traditional method) Digestion block (block digesting method) Digestion tubes (block digesting method), Exhaust manifold (block digesting method) Centrifugal scrubber apparatus or filter pump or aspirator (block digesting method), Volumetric flasks, one mark of 50 ml, 250 ml and 1 000 ml capacities. Distillation unit (block digesting method) Automatic titrator provided with a pH-meter. Spatula or suitable transfer device. Filter paper Illuminated magnetic stirrer plate Copper (II) sulfate pentahydrate solution Potassium sulfate (nitrogen free) Sulfuric acid (H₂SO₄) Sodium hydroxide (NaOH) solution Indicator solution

		Boric acid solution Hydrochloric acid standard volumetric solution Ammonium sulfate Tryptophan or lysine hydrochloride Sucrose
4.	Milk Fat, Cl. 4.7, 4.9 & Table 1	<u>As per Annex B of IS 13334 (Part 1):</u> Centrifuge with Centrifuge tubes Butyrometer, 6 Percent, 8 Percent and 10 Percent Scale with stopper Pipettes Analytical Balance, 0-500 g, LC 0.1 g Water bath, upto 100°C, LC 0.1°C Sulphuric acid Amyl alcohol Stemless -Funnel Wash bottle Glass rod Grater or Pestle and Mortar Scoop Camel hair brush <u>As per IS 19396:</u> Ammonia solution, containing a mass fraction of NH₃ of approximately 25 %, Ethanol (C₂H₅OH), or ethanol denatured by methanol, containing a volume fraction of ethanol of at least 94%, Indicator solution (optional), Bromocresol purple solution, Patent blue V, Diethyl ether, free from peroxides, Light petroleum, with any boiling range between 30 °C and 60 °C, Analytical balance (capable of weighing to the nearest 1 mg, with a readability of 0.1 mg), Centrifuge (capable to produce a radial acceleration of around 80g to 90g at the outer end of the flasks or tubes), Distillation or evaporation apparatus, Drying oven (electrically heated, with ventilation port(s) fully open, capable of being maintained at a temperature of 102 °C ± 2 °C throughout its working space. The oven shall be fitted with a suitable thermometer.), Water bath (capable of being maintained at a temperature of 37,5 °C ± 2,5 °C, 50 °C ± 5 °C, 65 °C ± 5 °C and at boiling point), Fat-extraction flasks: o Mojonniere-type fat-extraction flasks o Extraction tubes-type fat extraction flask o Stoppers Rack, Wash bottle, Fat-collecting vessels, Measuring cylinders or delivering systems, Pipettes or delivering systems, Tongs, Blender, Boiling aids
5.	Insolubility index ,Cl. 4.7, 4.9 & Table 1	Silicon antifoaming agent Thermometers for measuring 24°C and 50°C, error ±0.2°C max Water bath, upto 100°C, LC 0.1°C Scoop Analytical balance LC 0.01g Electric mixer Interval timer Centrifuge with Centrifuge tubes Siphon fitting or suction tube attached to water pump

		Scoop Camel hair brush Stirring rod Magnifying glass
6.	Total Ash (on moisture and fat free basis), Cl. 4.7, 4.9 & Table 1	Flat-Bottom Dish, of stainless steel, porcelain, silica or platinum Muffle Furnace upto 1200°C, LC 1°C Desiccator Air-Oven, capable of maintaining 100°C ± 2°C, LC 1°C Flame for pre-heating Analytical Balance
7.	Titratable acidity, Cl. 4.7, 4.9 & Table 1	Heater for boiling water Analytical balance Sodium hydroxide Phenolphthalein solution Porcelain Dishes stirring rods OR <u>Alternate method as per IS 11765</u> Analytical balance pH-meter Magnetic stirrer Burette Measuring cylinder, capacity 50 ml Conical flask
8.	Lactate content, Cl. 4.7, 4.9 & Table 1	Potassium hexacyanoferrate(II) solution Zinc sulfate solution Sodium hydroxide solutions Glycerol solution Ammonium sulfate solution Buffer solution, pH 10. Nicotinamide adenine dinucleotide solution (NAD). L-Lactate dehydrogenase (L-LDH) D-Lactate dehydrogenase (D-LDH) Glutamate pyruvate transaminase (GPT) Lithium L-lactate solution Lithium D-lactate solution Analytical balance, capable of weighing to the nearest 1 mg, LC 0.1 mg. Glass beaker Graduated cylinder One-mark volumetric flasks, of capacity 100 ml Pipettes, capable of delivering 0,02 ml, 0,05 ml, 0,2 ml, 1,0 ml and 2,0 ml Graduated pipettes, capable of delivering 5 ml and 10 ml, graduated in 0,1 ml divisions. Glass filter funnel, of diameter about 7 cm Filter paper, medium fast grade, of diameter about 15 cm, free from lactic acid and lactates Glass rod Plastic paddles, capable of mixing the sample-enzyme mixture in the spectrometric cell Spectrophotometer, capable of measuring at 340 nm, equipped with cells of optical path length 1 cm Parafilm
9.	Scorched particles, Cl. 4.7, 4.9 & Table 1	Scorched particles filtering discs Scorched particles Discs test cards Scorched particles tester Scorched particles standard photoprints for dry milk Analytical Balance, 0-500 g, L C 0.1 g Waring blender Defoaming agent

10	Aerobic plate count , Cl. 4.7, 6 & Table 2	Plate count agar Overlay medium Oven Autoclave Incubator (30° C+1°C Petri dishes Water bath Colony counter pH meter test tubes, flasks/bottles Filtration assembly and filter paper Laminar Air Flow Bench
11.	Coliform count, Cl. 4.7, 6 & Table 2	Crystal violet neutral red bile lactose (VRBL) agar Brilliant green lactose bile broth Oven or Autoclave Incubator, 30°C+ 1°C or 37°C+1°C Petri dishes Total delivery plates Water bath, 44° C To 47° C or 100°C Colony counter Test tubes Durham tubes Bottles or flasks pH meter loop Filtration assembly and filter paper Laminar Air Flow Bench
12.	Staphylococcus aureus (Coagulase positive), Cl. 4.7, 6 & Table 2	Apparatus for dry sterilization (oven) and wet sterilization (autoclave) Incubator Water bath Sterile tubes, bottles or flasks Sterile Petri dishes Straight wire or Pasteur pipette Sterile graduated pipettes or automatic pipettes Spreaders pH-meter Refrigerator Membranes Baird-Parker agar (BPA) plate/ rabbit plasma fibrinogen agar medium
13.	Yeast and mould count, cl. 4.7, 6 & Table 2	Incubator, capable of operating at 25 °C ± 1 °C Total delivery pipettes, sterile, of nominal capacity 1 ml, and graduated in divisions of 0,1 ml Water bath, or similar apparatus, capable of operating at 44 °C to 47 °C. pH meter, accurate to 0,1 pH units at 25 °C. Bottles, flasks and tubes, for boiling and storage of culture media, and for making of dilutions. Petri dishes, sterile, of glass or plastic, with a diameter 90 mm to 100 mm. Microscope, Spreaders, Binocular magnifier Dichloran 18 % (mass concentration) glycerol agar (DG18)
14.	Salmonella Spp., Cl. 4.7, 6 & Table 2	Apparatus for dry sterilization (oven) or wet sterilization (autoclave). Drying cabinet or oven, capable of operating between 25 °C and 50 °C. Incubator(s), capable of operating in the range 34 °C

		to 38 °C and at 37 °C ± 1 °C Incubator, capable of operating at 41,5 °C ± 1 °C or water bath capable of operating at 41,5 °C ± 1 °C. Water bath, capable of operating at 47 °C to 50 °C. Water bath, capable of operating at 37 °C ± 1 °C. Water bath, capable of operating at 45 °C ± 1 °C. Refrigerator Freezer Sterile loops pH-meter Sterile tubes, bottles, or flasks Sterile graduated pipettes or automatic pipettes Sterile Petri dishes Rappaport-Vassiliadis medium with soya (RVS broth) or Modified Semi-solid Rappaport-Vassiliadis (MSRV) agar and Muller-Kauffmann tetrathionate-novobiocin broth (MKTn broth)
15.	<i>Listeria monocytogenes</i> , Cl. 4.7, 6 & Table 2	Lithium chloride acriflavine and nalidixic acid (half fraser broth) Fraser broth Oxford agar PALCAM agar Selective solid plating-out media Tryptone soya yeast extract agar (TSYEA) Tryptone soya yeast extract broth (TSYEB) Sheep blood agar Carbohydrate utilization broth (rhamnose and xylose) Motility agar Laminar Air Flow Bench CAMP (Christie, Atkins, MunchPetersen) medium and test strains Hydrogen peroxide solution Phosphate-buffered saline (PBS) Oven or autoclave for sterilization BOD Incubator, 5 -50°C, LC 0.1°C Water bath, capable of being maintained at 47 °C ± 2°C. Loops pH meter test tubes or flasks measuring cylinder Filtration assembly and filter paper
16.	<i>Bacillus cereus</i> Cl. 4.7, 6 & Table 2	Apparatus for dry sterilization (oven) or wet sterilization (autoclave) Drying cabinet or incubator Incubator, capable of operating at 30 °C ± 1 °C. Water baths, capable of being maintained at 44 °C to 47 °C pH-meter, accurate to within ± 0,1 pH units at 25 °C. Petri dishes Graduated pipettes Spreaders MYP agar
17.	Sulphite reducing clostridia, Cl. 4.7, 6 & Table 2	Apparatus for dry sterilization (oven) or wet sterilization (autoclave). Incubator, capable of operating at 37 °C ± 1 °C. pH-meter, Refrigerator, capable of operating at 5 °C ± 3 °C. Sterile bottles, flasks or tubes, Sterile graduated pipettes or automatic pipettes, Sterile loops, of approximately 1 µl volume, or inoculation needle or wire.

		Thermostatically controlled water bath, capable of operating at 44 °C to 47 °C and 80 °C ± 2 °C. Appropriate apparatus for achieving an anaerobic atmosphere, iron sulfite agar (ISA) medium
18.	E.coli, Cl. 4.7, 6 & Table 2	Apparatus for dry sterilization (oven) or wet sterilization (autoclave) Incubator, capable of operating at 37 °C ± 1 °C and 44 °C ± 1 °C. Water bath, capable of being maintained at 44 °C ± 1 °C. Test tubes Sampling loops, Durham tubes Total-delivery pipettes pH-meter lauryl sulfate broth
19.	Lead, Cl. 4.11 & Table 3	AAS Pure Lead Metal Concentrated Nitric Acid Concentrated Hydrochloric
20.	Arsenic, Cl. 4.11 & Table 3	Atomic Absorption Spectrophotometer Concentrated Hydrochloric Acid Concentrated Nitric Acid Concentrated Sulphuric Acid Potassium Iodide Sodium Borohydride Standard Arsenic Solution water bath
21.	Aflatoxing M ₁ , Cl. 4.11 & Table 3	Pure solvents Acetonitrile/methanol solution, Toluene/acetonitrile solution TLC development solvents. Aflatoxin M ₁ standard solution Volumetric pipettes, of required capacities. Hamilton-like microsyringes. 1) Laboratory glassware, such as glass beakers and funnels, of appropriate capacities One-mark volumetric flask, of capacity 200 ml. Measuring cylinder, of capacity 100 ml. Disposable syringes, of capacities 10 ml and 100 ml. Glass conical tube, of capacity 5 ml, to collect the extract after the clean-up step. Evaporation system, rotary evaporator or by using a

		gentle stream of nitrogen. Spectrometer, Water bath, capable of operating at between 35 °C and 37 °C. Centrifuge, Filter paper (Whatman No. 41) or equivalent Affinity columns Analytical balance, capable of weighing to the nearest 0,1 g. Magnetic stirrer. Vortex type stirrer. Vacuum system, for immunoaffinity cartridge. Oven, capable of maintaining a temperature of approx. 50 °C. Thin-layer chromatography (TLC) container. Thin-layer chromatography (TLC) plates, UV lamp, capable of operating at 365 nm. Densitometer (optional). OR <u>Alternate Method as per IS 18110</u> Disposable syringes, of capacities 10 ml and 50 ml. Vacuum system Centrifuge, Pipettes, Glass beakers, One-mark volumetric flask, of capacity 100 ml. Water baths, Filter paper, Graduated conical glass tubes, HPLC apparatus, Reversed phase HPLC analytical column Fluorescence detector, Spectrophotometer Analytical balance Immunoaffinity column. Acetonitrile, Nitrogen gas. Aflatoxin M₁ standard solutions
22.	Melamine, Cl. 4.11 & Table 3	Water, for chromatography use Acetonitrile Ammonium acetate Cyanuric acid Labelled cyanuric acid Melamine Labelled melamine Conical tubes, polypropylene, of capacity 50 ml. Centrifuge, Volumetric pipettes, Automatic micropipette, Nylon syringe filter, of porosity 0,22 µm. Degassing system Analytical balance Sonification device

		Vials LC-MS/MS equipment. HPLC Column, One-mark volumetric flasks
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ANNEX B
SCHEME OF INSPECTION AND TESTING

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipment.

2. TEST RECORDS – The manufacturer shall maintain test records in various formats, Form 1 for the tests carried out to establish conformity.

3. LABELLING, PACKING AND MARKING— Labelling and marking shall be as given below:

3.1 STANDARD MARK: The Standard Mark, as specified by BIS, shall be stencilled with indelible ink or printed on labels applied to the container of skimmed milk powder provided always that the material in each container to which this mark is applied conforms to every requirement of the specification.

3.2 MARKING - As per the requirements of IS 13334 Pt.2: 2014.

3.2.1 In addition to above, following marking shall also be marked:

- a) For details of BIS certification please visit www.bis.gov.in

3.3 PACKING: The material shall be packed as per cl. 6.1 of IS 13334 (Part 2):2014

4. CONTROL UNIT–

4.1 For the purpose of this Scheme, the entire quantity of milk powder manufactured continuously at a time in a period of 24 hours or a part thereof shall constitute a control unit.

4.1.1 Raw Milk: The raw milk received in factory shall be tested for fat, SNF, COB, Neutralizers, Additives, etc, and appropriate records maintained. Milk intended for production for skimmed milk powder shall be tested for freedom from Neutralizers, Preservatives, Adulterants and necessary records maintained.

5. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 On the basis of test and analysis results decision regarding the conformity or otherwise of a control unit of skimmed milk powder to the requirements of the specification shall be made as follows:

5.1.1 A sample shall be taken at the packing stage after every half an hour which shall be examined visually for appearance, colour, absence of lump and extraneous matter; examined by organoleptic methods for flavour and taste, absence of added colour & added flavour and analysed for moisture content. If the sample does not conform to the specification in any one or more of these requirements, the material manufactured during the half an hour prior to the drawl of sample shall either be rejected or reprocessed and the defect(s) rectified. Such reprocessed material when tested again shall conform to all the requirements of the specification.

5.1.2 Two samples shall be drawn from every control unit – one during the first half of the packing period and other during the second half of the packing period. These samples shall be individually tested for Milk Protein in Milk Solids not fat, Insolubility index, Milk fat, Titrable acidity, Scorched particles, Aerobic Plate Count, Yeast & Mould count, Coliform count & Escherichia coli. If any one or both the samples fail to conform to anyone or more of these requirement(s) as given in the specification, the entire material in the control unit shall not be marked. In case of manufacturers, the material may, however, be reprocessed and the defect(s) rectified. Such reprocessed material when tested again shall conform to all the requirements of the specification.

5.1.3 Two samples from every seventh control unit (starting from a control unit chosen at random) shall be tested for total ash. If any one or both the samples fail to satisfy the requirement, the corresponding control unit shall not be marked. The material in the control unit may, however, be reprocessed and the defect rectified. Such reprocessed material when tested again shall conform to all the requirements of the specification. Two samples from every subsequent control unit shall be tested for the characteristic where failure has occurred till seven consecutive control units are found meeting the specification requirement, whereupon the original frequency of testing may be resumed.

5.1.4 Two sample(s) for Lactate content and one sample each for testing of and Coagulase Positive Staphylococcus aureus, Salmonella, Spore Count a) Aerobic (Bacillus cereus), b) Anaerobic (sulphite reducing clostridia), and Listeria monocytogenes shall be drawn from the product every month for testing as given under Table-2 of this scheme. In case of failure of the sample in any one or more of these characteristics the corresponding control unit shall not be marked and two samples from every subsequent control unit shall be tested for the characteristic(s) where failure has occurred, till five consecutive control units are found meeting the specification requirement(s) whereupon the original frequency of testing may be resumed.

Note: The requirement for pathogens (like Salmonella, etc) shall be tested in a laboratory situated away from the production area or in an outside recognised lab.

5.1.5 Skimmed Milk Powder shall be the material prepared by spray drying of fresh skimmed milk of cow or buffalo or a combination thereof.

5.1.6 The product may contain added calcium chloride, citric acid and sodium citrate, sodium salts of orthphosphoric acid and polyphosphoric (as linear phosphate), not exceeding 0.3 percent by mass of the finished product.

5.1.7 All processing and drying should be carried out in a manner that minimizes loss of nutritive value, particularly protein quality.

5.1.8 Undertaking w.r.t clause 5.8 of ISS to be submitted by the manufacturer stating that it shall be the responsibility of the manufacturer/repacking unit to comply with the relevant requirements as per Food Safety and Standards (Contaminants, toxins and residue) Regulations, 2011 and maintain records of the conformance.

6. HYGIENIC CONDITIONS – The material shall be manufactured packed, stored and distributed under hygienic conditions (see IS 2491). All the processing equipment should be properly cleaned and care should be taken to prevent infestation.

7. REJECTIONS—Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of control		
Cl.	Requirements	Test Method Cl. Ref.	Test Method IS		No. of samples	Frequency	Remarks
4.1	Description (General)	4.1	IS 13334 (Part 2)	R	One	Every half an hour	See clause 5.1.1 of SIT
4.2	Freedom from preservatives, neutralizers and adulterants	4.2	-do-	Manufacturer to maintain records of compliance for the parameters in the raw milk			
4.3	Freedom from extraneous matter, added colour & added flavour	4.3	-do-	R	One	-do-	-do-
4.4	Limit of permitted food additives	4.4	-do-	Manufacturer to maintain records for compliance of the parameter as per the limits specified under Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011			
4.5	Flavour and Taste	4.5	-do-	R	One	-do-	-do-
4.7, 4.9 & Table 1	Moisture	4.7, 4.9 & Table 1	IS 11623 or IS 16072 or ISO 21543	R	One	-do-	-do-
-do-	Milk Protein in milk solids not fat	-do-	IS 11917	R	Two	Each Control Unit	See Cl. 5.1.2 of SIT
-do-	Milk Fat	-	IS 19396 or IS 13334 Part 1	R	Two	-do-	-do-
-do-	Insolubility Index	-	IS 12759	R	Two	-do-	-do-
-do-	Total Ash (on moisture and fat free basis)	Annex C	IS 14433	R	Two	-do-	See Cl. 5.1.3 of SIT
-do-	Titrateable Acidity	-	IS 11765 or IS	S	Two	Each Control Unit	See Cl. 5.1.2 of SIT

			11766				
-do-	Lactate Content	-	IS 11202	R	Two	Once in a month	See Cl. 5.1.4 of SIT
-do-	Scorched Particles	-	IS 13500	R	Two	Each Control Unit	See Cl. 5.1.2 of SIT
4.7, 6 and Table 2	Aerobic Plate Count	4.7, 6 and Table 2	IS 5402 (Part 1)	R	Two	Each Control Unit	-do-
Microbiological requirements							
-do-	Coliform Count	-do-	IS 5401 (Part 1)	R	Two	-do-	See Cl. 5.1.2 of SIT
-do-	<i>Staphylococcus aureus</i> (Coagulase positive)	-do-	IS 5887 (Part 8/Sec1 or Sec 12)	S	One	Once in a Month	See Cl. 5.1.4 of SIT
-do-	Yeast and mould count	-do-	IS 16069 (Part 2)	R	Two	Each Control Unit	See Cl. 5.1.2 of SIT
-do-	Salmonella spp.	-do-	IS 5887 (Part 3/Sec1)	S	One	Once in a Month	See Cl. 5.1.4 of SIT
-do-	<i>Listeria mono cytogenes</i>	-do-	IS 14988 (Part 1)	S	One	-do-	-do-
-do-	<i>Bacillus cereus</i>	-do-	IS 5887 (Part 6)	S	One	-do-	-do-
-do-	Sulphite reducing clostridia	-do-	IS 183459 (Part 1)	S	One	-do-	-do-
-do-	<i>Escherichia coli</i>	-do-	IS 16424	R	Two	Each Control Unit	See Cl. 5.1.2 of SIT
4.10	Pesticide residue, antibiotic and veterinary drug residues	-do-	IS 13334 (Pt 1)	Manufacturer to maintain records for compliance of the parameter as per the limits specified under Food Safety and Standards (Contaminants, Toxins and			

				Residues) Regulations, 2011.			
4.11 and Table 3	Metal Contaminants/other contaminants/ toxic substance (aflatoxin M1 and melamine)						
4.11 and Table 3	Lead	4.11 and Table 3	IS 12074	S	One	Once in a Month	
-do	Arsenic	-do	IS 11124	S	-do-	-do-	
-do	Aflatoxin M1	-do	IS 18108 or IS 18110	S	-do-	-do-	
-do	Melamine	-do	IS 16195	S	-do-	-do-	