**SCHEDULE 1** 

Regulations 4(1)(a), (3)(a) and (8) and 9(1)(a)

## CONDITIONS FOR REGISTRATION OF PRODUCTION HOLDINGS

# PART 1

#### A. GENERAL CONDITIONS OF HYGIENE FOR PRODUCTION HOLDINGS

**1.** All animals shall be clean and well-kept. Individual cows in a herd shall be identifiable by an authorised officer.

**2.** Production holdings shall have the capability to isolate effectively from the rest of the herd any animals infected, or suspected of being infected with tuberculosis, brucellosis or any other disease communicable to humans through consumption of milk.

**3.** Any creature, including any animal of the species referred to in regulation 2(1), shall be kept away from premises and sites where milk is stored, handled or cooled.

4. Pigs and poultry shall not be housed in premises where animals are housed or milked.

**5.** Access to premises in which animals are housed or milked or any premises on the production holding in which milk is handled, cooled or stored shall be kept free from accumulations of dung, droppings or other offensive matter. Dung channels and droppings on the production holding shall be cleared regularly as necessary.

6. Adequate measures shall be taken to control insects, rodents and other vermin on the production holding.

7. Store-rooms and cleaning-rooms and the equipment in such rooms shall be kept clean, tidy and in good condition.

8. The holding bay for ewes and goats, where it exists, shall be kept in a clean and tidy condition.

### **B. GENERAL CONDITIONS OF HYGIENE APPLICABLE TO STAFF**

1. The highest standards of cleanliness shall be required at all times of staff and persons engaged in milking and handling of raw milk. In particular they shall:

- (a) wear suitable clean working clothes;
- (b) wash their hands immediately before commencing milking or handling of raw milk and shall keep them clean, as far as practicable, throughout the milking or handling operation; and
- (c) keep any wounds to the skin covered with a waterproof dressing.

2. The occupier shall take all requisite measures to prevent persons liable to contaminate raw milk from handling it, unless there is evidence that such persons can do so without risk of contamination.

**3.** Before the recruitment of any person for milking or handling raw milk, such person shall be required to show that there is no medical impediment to such employment.

# PART II

# **CONDITIONS FOR HOUSING OF ANIMALS**

**1.** The premises housing milking animals shall be designed, sited, constructed, maintained and managed so as to ensure good conditions of housing, hygiene, cleanliness and health of the animals.

**2.** The stalls or lying areas shall be kept dry, if necessary by the use of bedding which is regularly changed.

**3.** Washing, cleaning and disinfection of the premises housing milking animals or any outhouses attached to such premises shall be carried out in such a way so as to ensure that it does not have an adverse effect on the milk. Any disinfectants used shall be acceptable to the authorised officer.

**4.** Where one or more rams of male goats are used for breeding, separate accommodation shall be provided for them so as to avoid contamination with odours.

# PART III

## CONDITIONS FOR MILKING AND THE HANDLING, COOLING AND STORAGE OF RAW MILK ON THE PRODUCTION HOLDING

#### A. STRUCTURE OF THE PREMISES

- 1. Premises in which animals are milked or in which raw milk is handled, cooled or stored shall-
  - (a) be designed, sited, constructed, maintained and managed in such a way as to ensure satisfactory hygiene conditions for milking operations and for the handling, cooling and storing of milk and shall provide adequate separation from all sources of contamination, including lavatories and dung heaps;
  - (b) have walls and floorings in areas liable to soiling or infection, and fittings and equipment, which are easy to clean and disinfect;
  - (c) have suitable means of waste disposal, including flooring which allows liquids to drain away;
  - (d) have adequate ventilation and lighting;
  - (e) have a sufficient supply of potable water for use in milking operations, and for the cleaning of equipment and utensils intended to come into contact with milk;
  - (f) have suitable facilities near the place of milking to enable milkers and persons handling milk to wash their hands and arms;
  - (g) in the case of production holdings where milk-producing animals are kept untethered in the open, have a milking parlour, or a milking area for the milking of animals, which is adequately separated from any housing area; and
  - (h) in the case of milk storage premises, have suitable refrigeration equipment, adequately protected against vermin and be adequately separated from any premises where any animals are housed or milked.

2. If a processing or treatment establishment is attached to a production holding for ewes and goats, there shall be no direct communication between premises where the ewes and goats are housed or milked, and the processing or treatment establishment.

#### **B. EQUIPMENT**

1. Equipment and instruments or their surfaces which are intended to come into contact with milk in premises in which animals are milked or in which milk is handled, cooled or stored shall be made of smooth material which is easy to clean and disinfect, which resits corrosion and which will not transfer substances to milk in such quantities as to endanger human health, impair the composition of milk or adversely affect its organoleptic characteristics.

**2.** Equipment, utensils and all their components used for milking shall be kept clean and maintained in good physical condition at all times.

**3.** After use, any utensils used for milking, mechanical milking equipment and containers which come into contact with milk shall be cleaned and disinfected and rinsed with potable water.

**4.** Bulk milk tanks when empty shall be left with an open plug hole or, where appropriate, an open outlet value.

5. Where milking is done by hand, the pails containing the milk shall be covered and brought as quickly as possible to the milk storage premises.

## C. OPEN-AIR MILKING AND MOVEABLE MILKING BAILS

- 1. Where milking is done in the open, the ground where it takes place shall be clean.
- 2. Where a moveable milking bail is used, it shall—
  - (a) have a sufficient supply of potable water for use in milking operations and for the cleaning of equipment, utensils and all their components intended to come into contact with milk;
  - (b) have fittings and equipment which are easy to wash, clean and disinfect;
  - (c) be sited on ground which is free of any accumulation of excreta or other waste matter;
  - (d) provide adequate protection for the milk during the whole period in which the bail is in use; and
  - (e) be so constructed and finished as to permit the interior surfaces to be kept clean.

#### **D. FEEDSTUFFS**

1. Feedstuffs shall not be stored on a production holding where they can have an adverse effect on milk.

# PART IV

## **CONDITIONS FOR MILKING AN FILTERING OPERATIONS**

1. Any work including feeding of animals, that might have adverse effect on the milk shall not be carried out immediately before or during the milking.

**2.** Before the milking is started the teats, udder, flank, hindquarters and adjacent parts of the abdomen of the animal shall be clean.

**3.** At the start of the milking of an individual animal, the milker shall inspect the appearance of the milk. If any physical abnormality in the milk is detected, milk from that animal shall not be allowed to leave the production holding, nor shall it be used for human consumption on that production holding.

**4.** Animals with clinical udder diseases shall be milked last, or by a separate machine, or handstripped. Milk from such animals shall not be allowed to leave the production holding, nor shall it be used for human consumption on that production holding.

**5.** Teat dips or sprays for lactating animals other than those to which the Marketing Authorisations for Veterinary Medicinal Products Regulations 1994(1) apply shall only be used immediately after milking, unless otherwise permitted by an authorised officer. The components of the teat dips and sprays used shall be those acceptable to the authorised officer.

6. Where the milk is filtered, the filter used shall, depending on the type, be changed or cleansed before its capacity for absorption is exhausted. In any case, the filter shall be changed or cleansed before each milking. Filtering cloths shall not be used for cows' milk.

#### SCHEDULE 2

Regulations 3(5), 6(1)(a), (3)(a), (8) and (9), 9(1)(a) and 19(a), (b) and (e)

#### CONDITIONS FOR APPROVAL OF DAIRY ESTABLISHMENTS

# PART 1

## GENERAL CONDITIONS OF HYGIENE FOR DAIRY ESTABLISHMENTS.

- 1. Dairy establishments shall have the following:
  - (a) facilities for the hygienic handling and protection of raw materials and of non-packed or non-wrapped dairy products during loading and unloading;
  - (b) appropriate arrangements for protection against pests;
  - (c) instruments and working equipment intended to come into direct contact with raw materials and dairy products which are made of corrosion-resistant material and which are easy to clean and disinfect;
  - (d) special watertight, non-corrodible containers in which to put raw materials or dairy products not intended for human consumption. Where such raw materials or dairy products are removed through conduits, these shall be constructed and installed in such a way so as to avoid any risk of contamination of other raw materials or dairy products;
  - (e) appropriate facilities for the cleaning and disinfecting of equipment and instruments;
  - (f) an adequate waste water disposal system which is hygienic;
  - (g) a supply of potable water only. However a supply of non-potable water is also permitted provided that it is intended only for the cooling of equipment, steam production, fire-fighting and refrigeration equipment, and provided that the pipes installed for this purpose preclude the use of this water for other purposes and present no direct or indirect risk of contamination of the dairy products.

Non-potable water pipes shall be clearly distinguished from those used for potable water;

(h) an appropriate number of changing rooms with smooth, waterproof, washable walls and floors and within the room or in its immediate vicinity, was basins with non hand-operable taps, hygienic hand-drying facilities and flush lavatories. The lavatories shall not open directly on to the work rooms;

<sup>(1)</sup> S.I.1994/3142.

- (i) a lockable room or a secure place for the storage of detergents, disinfectants and similar substances;
- (j) a room or cupboard for storing cleaning and maintenance material;
- (k) adequate facilities for cleaning and disinfecting tanks used for transporting dairy products. However such facilities shall not be compulsory if alternative facilities which are acceptable to the approving authority are available to the dairy establishment for such purpose; and
- (l) rooms with adequate capacity for storing raw materials and dairy products.

**2.**—(1) Dairy establishments shall have working areas of sufficient size for work to be carried out under adequate hygienic conditions; their design and layout shall be such as to preclude contamination of the raw materials and the dairy products.

(2) The production of heat-treated milk or the manufacture of milk-based products which might pose a risk of contamination to other dairy products shall be carried out in a clearly separated working area.

(3) In areas where raw materials are handled and dairy products are manufactured, the areas shall have the following;

- (a) solid, waterproof flooring which is easy to clean and disinfect and which allows water to drain away, and equipment to remove water;
- (b) walls which have smooth surfaces and are easy to clean, are durable and impermeable and which are covered with light-coloured coating;
- (c) ceilings or roof linings which are easy to clean in those areas where exposed or nonpackaged raw materials or dairy products are handled;
- (d) doors made of non-corrodible materials which are easy to clean;
- (e) adequate ventilation and, where necessary, good steam and water-vapour extraction facilities;
- (f) adequate natural or artificial lighting;
- (g) an adequate number of facilities with hot and cold running water, or water pre-mixed to a suitable temperature, for cleaning and disinfecting hands; taps in work rooms and lavatories for cleaning and disinfecting hands which shall be non hand-operable; these facilities shall be provided with cleaning and disinfecting materials and a hygienic means of drying hands; and
- (h) facilities for cleaning tools, equipment and installations.

**3.**—(1) Subject to sub-paragraphs (2) and (3) of this paragraph, the rooms where raw materials and dairy products are stored shall comply with the requirements specified in paragraph 2(3)(a) to (f) above.

(2) Raw materials and dairy products may be stored in rooms which do not comply with all or any of the requirements of paragraph 2(3)(a) to (f) above provided that—

- (a) in the case of chilling and refrigeration rooms they have a floor which is easy to clean and disinfect and which allows water to drain away; or
- (b) in the case of freezing and deep-freezing rooms they have a floor which is waterproof, rotproof and easy to clean; and
- (c) in the cases referred to in sub-paragraphs (a) and (b) above, the rooms have a sufficiently powerful refrigeration plant to keep raw materials and dairy products at the temperatures specified by these Regulations.

(3) In freezing and deep-freezing rooms referred to in sub-paragraph (2)(b) of this paragraph, the use of wooden walls shall be permitted provided they were built before 1st January 1993.

# PART II

## **SPECIAL CONDITIONS FOR APPROVAL**

# A. SPECIAL CONDITIONS FOR APPROVAL OF TREATMENT OR PROCESSING ESTABLISHMENTS

**1.** In addition to the general requirements laid down in Part I of this Schedule, an establishment shall meet the requirements set out below in this Part.

2. The establishment shall possess equipment for the mechanical filling and proper automatic sealing of containers (excluding churns, tanks and bulk packaging of more than 4 litres) which are to be used for packaging heat-treated drinking milk and liquid milk-based products, if such operations are carried out at that establishment. However in the case of limited production of liquid milk intended for drinking, alternative non-automatic filling and sealing methods may be used after authorisation by the approving authority provided that such methods carry equal assurance with regard to hygiene.

**3.** The establishment shall possess equipment for the cooling and cold storage of heat-treated milk and liquid milk-based products. Where raw milk is stored, purified or standardised at an establishment, that establishment shall also possess equipment for the cooling and cold storage of raw milk. Cold stores shall be equipped with correctly calibrated temperature-measuring apparatus.

4. The establishment shall possess—

- (a) in the case of dairy products wrapped in disposable containers, an area for the storage of such containers and for the storage of raw materials intended for their manufacture; and
- (b) in the case of dairy products wrapped in re-usable containers, a special area for their storage, and equipment designed to clean and disinfect them mechanically.

5. The establishment shall possess containers for storing raw milk and, if appropriate, standardisation equipment and containers for storing standardised milk.

**6.** The establishment shall possess centrifuges or any other suitable means for physically purifying milk, if appropriate.

7.—(1) Subject to sub-paragraph (2) below, a treatment establishment shall possess heat-treatment equipment, approved or authorised by the approving authority for the treatment of dairy products, fitted with:

- (a) an automatic temperature control;
- (b) a recording thermometer;
- (c) an automatic safety device preventing insufficient heating;
- (d) an adequate safety system preventing the mixture of heat-treated drinking milk with milk which has not been fully heat-treated; and
- (e) an automatic recording device which records the operation of the safety system referred to in sub-paragraph (d) above or a procedure for monitoring the system's effectiveness;

(2) A treatment establishment may have equipment different to those specified in subparagraph (1) of this paragraph provided that an equivalent performance may be achieved with equal assurances with regard to hygiene and the approving authority has authorised the use of such equipment. **8.** A processing establishment shall possess equipment for heating, thermisation or heat-treatment if such operations are carried out in that establishment which meets hygiene requirements.

**9.** The establishment shall possess equipment for the cooling, wrapping and storage of frozen milk-based products, if such operations are carried out at that establishment.

**10.** The establishment shall possess equipment for drying and wrapping powdered milk products, if such operations are carried out at that establishment.

#### **B. SPECIAL CONDITIONS FOR APPROVAL OF A COLLECTION CENTRE**

1. In addition to the general requirements laid down in Part I of this Schedule, a collection centre shall have—

- (a) cooling equipment or appropriate means for cooling milk and, if milk is stored at that collection centre, a cold-storage installation; and
- (b) if milk is purified at that collection centre, centrifuges or any other apparatus suitable for the physical purification of milk.

### C. SPECIAL CONDITIONS FOR APPROVAL OF A STANDARDISATION CENTRE

**1.** In addition to the general requirements laid down in Part I of this Schedule, a standardisation centre shall have—

- (a) containers for the cold storage of raw milk;
- (b) standardisation equipment and containers for the storage of standardised milk; and
- (c) centrifuges or any other apparatus suitable for the physical purification of milk.

# PART III

## **GENERAL CONDITIONS OF HYGIENE**

#### A. GENERAL CONDITIONS OF HYGIENE APPLICABLE TO DAIRY ESTABLISHMENTS, INSTRUMENTS AND EQUIPMENT

**1.** Rodents, insects and any other vermin shall be systematically destroyed in the dairy establishment and any creature, including any animal of the species referred to in regulation 2(1) shall be prevented from entering rooms in which dairy products are manufactured or stored.

**2.** Instruments and equipment used for working on raw materials and dairy products, floors, ceilings or roof linings, walls and partitions shall be kept in a satisfactory state of cleanliness and repair, so that they do not constitute a source of contamination to raw materials or dairy products.

**3.** Rodenticides, insecticides, disinfectants and any other potentially toxic substance shall be stored in lockable rooms or a secure place and used in such a way that they do not have an adverse effect on machinery, equipment, instruments, raw materials or dairy products kept in the dairy establishment.

4. Working areas, instruments and working equipment shall be used only for work on dairy products in accordance with these Regulations. However, after authorisation by the approving authority, they may be used at the same time or at other times for work on other foodstuffs fit for human consumption, or other milk-based products fit for human consumption but intended for a use other than human consumption provided that they do not contaminate the dairy products for which approval has been given.

5. Potable water shall be used for all purposes save as permitted by paragraph 1(g) of Part I of this Schedule.

6. Equipment, containers and installations which come into contact with dairy products or perishable raw materials used during production shall be cleaned and if necessary disinfected according to a cleaning programme based on risk analysis principles.

7. Other equipment, containers, instruments and installations which come into contact with microbiologically stable dairy products and the rooms in which they are stored shall be cleaned and disinfected according to a cleaning programme based on risk analysis principles drawn up by the occupier of the dairy establishment.

**8.** As soon as possible after unloading or after each series of journeys where there is only a very short space of time between unloading and the following loading, but in any event at least once each working day, any container or tank used for transporting raw milk shall be cleaned and disinfected before re-use.

**9.** The treatment establishment shall in principle be cleaned according to a cleaning programme based on risk analysis principles.

**10.** The occupier of a dairy establishment shall take appropriate measures to avoid cross-contamination of dairy products in accordance with the cleaning programme specified in paragraph 7 above.

11. Where appropriate, rooms intended for production processes shall be divided into wet and dry areas, each having its own operating conditions.

12. Disinfectants and similar substances used shall be those acceptable to the approving authority and shall be used in such a way that they do not have any adverse effects on the machinery, equipment, raw materials and dairy products kept at the dairy establishment. They shall be in clearly identifiable containers bearing labels with instructions for their use and their use shall be followed by thorough rinsing of such instruments and working equipment with potable water, except in cases where the disinfectant or similar substance is specifically designed not to be rinsed after application.

**13.** Where a dairy establishment produces foodstuffs containing dairy products, together with other ingredients which have not undergone heat-treatment, or other treatment having an equivalent effect, such dairy products and ingredients shall be stored separately to prevent cross-contamination.

#### **B. GENERAL CONDITIONS OF HYGIENE APPLICABLE TO STAFF**

1. The occupier of a dairy establishment shall only employ persons in such an establishment to work directly with and handle raw materials or dairy products if those persons have proved to the occupier's satisfaction by means of a medical certificate, on recruitment, that there is no medical impediment to their employment in that capacity. This requirement shall not apply to any persons already working in such a capacity before the date on which these Regulations come into force.

2. Persons working directly with and handling raw materials or dairy products shall maintain the highest standards of personal cleanliness at all times. In particular they shall—

- (a) wear suitable, clean working clothes and headgear which completely encloses their hair;
- (b) not smoke, spit, eat or drink in rooms where raw materials and dairy products are handled or stored;
- (c) wash their hands at least each time work is resumed and whenever contamination of their hands has occurred; and
- (d) cover wounds to the skin with a suitable waterproof dressing.

**3.** The occupier shall take all necessary measures to prevent persons liable to contaminate raw materials and dairy products from handling them until the occupier has adequate evidence that such persons can do so without risk of contamination.

#### SCHEDULE 3

Regulations 9(1)(b) and (10), 13(1)(b) (iv), (v) and (vi) and (3)(b), (c) and (d)

#### **REQUIREMENTS FOR RAW MILK**

# PART I

## **ANIMAL HEALTH STANDARDS**

1. Raw milk shall come from animals on a registered production holding and such animals shall undergo regular veterinary inspections to ensure that the requirements of this paragraph are being complied with and shall—

- (a) not show any symptoms of infectious diseases communicable to human beings through milk;
- (b) not give the milk any abnormal organoleptic characteristics;
- (c) have a general state of health which is not impaired by any visible disorder and which are not suffering from any infection of the genital tract with discharge, enteritis with diarrhoea and fever, or a recognisable inflammation of the udder;
- (d) not show any udder wound likely to affect their milk;
- (e) not have had substances within the meaning of Council Directive 81/602/EEC concerning the prohibition of certain substances having a hormonal action and of any substances having a thyrostatic action(2), as amended(3), and Council Directive 88/146/EEC prohibiting the use in livestock farming of certain substances having a hormonal action(4), administered illegally; and
- (f) not have been treated with substances dangerous or likely to be dangerous to human health that are transmissible to milk unless any withdrawal period which may apply to it has been observed.
- 2. In addition to the requirements specified in paragraph 1 above—
  - (a) raw cows' milk and raw buffaloes' milk shall come from animals belonging to a herd which is officially tuberculosis-free and either brucellosis-free or officially brucellosis-free;
  - (b) raw cows' milk shall come from animals yielding at least two litres of milk per day; and
  - (c) raw ewes' milk and raw goats' milk shall come from animals belonging to a production holding which is either brucellosis-free or officially brucellosis-free (*Brucella melitensis*) within the meaning of Article 2(4) and (5) of Council Directive 91/68/EEC(5).

**3.** When different animal species are kept together on a production holding, each species shall satisfy the health conditions which would be required if it were alone.

<sup>(</sup>**2**) OJ No. L222, 7.8.81, p.32.

<sup>(3)</sup> Council Directive 81/602/EEC was supplemented by Council Directive 85/358/EEC (OJ No. L191, 23.7.85, p.46.)

<sup>(4)</sup> OJ No. L70, 16.3.1988, p.16.

<sup>(5)</sup> OJ No. L46, 19.2.91, p.19.

# PART II

# **RAW MILK STANDARDS**

**1.** Raw milk at the time of its collection from a registered production holding for its acceptance at a treatment or processing establishment shall not contain—

- (a) any added water,
- (b) antibiotic residues in excess of the levels authorised in Annexes I and III of Council Regulation (EEC) No. 2377/90 on Community procedure for the establishment of maximum residue limits of veterinary medicinal products in foodstuffs of animal origin(6), as amended(7) nor contain any combination of such substances in excess of a value to be fixed in accordance with that Council Regulation; or
- (c) residues or substances having a pharmacological or hormonal action, or pesticides, detergents or other substances which are harmful or which might alter the organoleptic characteristics of dairy products or make their consumption dangerous, or harmful to human health insofar as those residues exceed permitted tolerance limits.
- 2. In addition to the requirements specified in paragraph 1 above—
  - (a) raw cows' milk intended for the production of heat-treated drinking milk, fermented milk, junket, jellied milk, flavoured milk or cream shall meet the following standards:

Plate count at 30° (per ml)	≤100,000	
Somatic cell count (per ml)	≤400,000	

(b) raw cows' milk intended for the manufacture of any dairy products other than those referred to in sub-paragraph (a) above shall meet the following standards:

	From 1.1.94	From 1.1.98
Plate count at 30° (per ml)	≤400,000	≤100,000
Somatic cell count (per ml)	≤500,000	≤400,000

(c) raw cows' milk intended for the manufacture of any milk-based product (made with raw milk) which has not undergone any heat-treatment during its manufacture shall meet the following standards:

Plate count at 30° (per ml)	$\leq 100,000$
Somatic cell count (per ml)	≤400,000
Staphylococcus aureus (per ml)	n = c = 2, m = 500, M = 2,000

(d) raw goats', ewes', or buffaloes' milk intended for the production of heat-treated drinking milk or for the manufacture of heat-treated milk-based products shall meet the following standard:

	From 1.1.95	From 1.12.99
Plate count at 30° (per ml)	≤3,000,000	<1,500,000

<sup>(6)</sup> OJ No. L224, 18.8.1990, p.1.

<sup>(7)</sup> Relevant amending instruments are Commission Regulation (EC) No. 2701/94 (OJ No. L287, 8.11.94, p.7) which contains consolidated texts of Annexes I, II, III and IV to Council Regulation (EEC) No. 2377/90 and Commission Regulation (EEC) No. 2703/94 (OJ No. L287, 8.11.94, p.19).

(e) raw goats', ewes', or buffaloes' milk intended for the manufacture of any milk-based product which has not undergone any heat-treatment during its manufacture shall meet the following standards:

	From 1.1.95	From 1.12.99
Plate count at 30° (per ml)	≤1,000,000	<500,000
<i>Staphylococcus aureus</i> (per ml)	n = 5, c = 2, m = 500, M = 2	2,000

**3.** For the purposes of the tables set out in paragraph 2 above, the symbols referred to shall have the following meanings—

n = number of sample units comprising the sample;

c = number of sample units where the bacterial count may be between "m" and "M", the sample being considered acceptable if the bacterial count of the other sample units is "m" or less;

m = threshold value for the number of bacteria, the result is considered satisfactory if the number of bacteria in all sample units does not exceed "m";

M = maximum value for the number of bacteria, the result is considered unsafisfactory if the number of bacteria in one or more sample units is "M" or more.

- **4.** The occupier shall ensure that—
  - (a) compliance with the standards for raw cows' milk referred to in paragraph 2(a), (b) and
     (c) above in relation to somatic cell count is checked by random sampling, either—
    - (i) on a representative sample of the raw milk collected from each production holding, or
    - (ii) until 1st July 1997, on acceptance of the raw milk at the treatment estblishment or processing establishment;
  - (b) compliance with the standards referred to in paragraph 2 above in relation to plate count and *Staphylococcus aureus* is checked by random sampling of a representative sample of the raw milk collected from each production holding;
  - (c) the plate count at 30°C is calculated on the basis of a geometric average over a period of two months, with at least two samples a month; and
  - (d) the somatic cell count is calculated on the basis of a geometric average over a period of three months, with at least one sample a month.

# PART III

## **CHECKS FOR ADDED WATER IN RAW MILK**

1. Raw milk shall be subjected to regular checks and sampling to ascertain if water is being added to such milk.

**2.** Such checks shall include regular checks on the freezing point of raw milk supplied by each production holding and shall be carried out in accordance with the following procedure:—

- (a) raw milk supplied by each production holding shall be subjected regularly to random sampling;
- (b) where the raw milk of a single production holding is delivered directly to a processing estblishment or a treatment establishment, the samples for checking shall be taken—

- (i) when the raw milk is collected from the production holding for transport to such establishment, provided that adequate precautions are taken to prevent any fraud during such transport of the raw milk; or
- (ii) before unloading the raw milk at the processing establishment or treatment establishment, when the delivery there is made by the occupier of the production holding; and
- (c) where raw milk delivered to a processing establishment or treatment establishment consists of a mixture of raw milk obtained from more than one production holding, the samples for checking shall be taken—
  - (i) in accordance with sub-paragraph (b) above; or
  - (ii) when the raw milk enters the dairy establishment, provided that spot checks are also carried out at the production holdings from which the raw milk was obtained; and
  - (iii) if the results of any of the checks on a sample of such mixture of raw milk lead to a suspicion that water has been added to such milk, samples for checking shall be taken from all the production holdings from which the raw milk was obtained.

SCHEDULE 4

Regulations 9(2), (4)(b) and 13(1)(b)(iv) and (vi)

#### **REQUIREMENTS FOR DRINKING MILK**

# PART I

## **RAW MILK FOR DRINKING**

**1.** Subject to paragraph 2 below, drinking milk which is raw cows' milk shall meet the following standards after wrapping:

Plate count at 30° (per ml)	$\leq$ 50,000 calculated on the basis of a geometric average over a period of two months, with at least two samples a month.
Staphylococcus aureus (per ml)	n = 5, c = 2, m = 100, M = 500
Salmonella spp	Absence in 25ml, $n = 5$ , $c = 0$

Pathogenic micro-organisms and their toxins shall not be present in quantities such as to affect the health of the ultimate consumer.

- 2. Drinking milk which is—
  - (a) raw ewes' or goats' milk; or
  - (b) raw cows' milk which is sold directly to the ultimate consumer by a producer of raw milk,

shall meet the following standards:

Plate count at 30° (per ml)	≤ 20,000
Coliforms (per ml)	< 100

**3.** Where raw milk has not passed through a milk collection centre, it shall be transferred from one tank to another under hygienic conditions.

# PART II

# **RAW MILK FOR HEAT-TREATMENT**

**1.**—(1) Raw milk, at the time of its acceptance at a treatment establishment, unless treated within 4 hours of acceptance, shall be cooled to a temperature not exceeding 6°C and maintained at that temperature until heat-treated.

(2) Where raw cows' milk is not treated within 36 hours of acceptance at a treatment establishment, a further test shall be carried out on such milk before it is heat-treated. If it is found by means of a direct or indirect method that the plate count of that milk at 30°C exceeds 300,000 per ml, then such milk shall not be used for the production of heat-treated drinking milk.

# PART III

## **HEAT-TREATED DRINKING MILK**

- 1. Heat-treated drinking milk shall not contain—
  - (a) any pharmacologically active substance in a quantity higher than the limits laid down in Annex I and III of Council Regulation (EEC) No. 2377/90(8) as amended(9) nor contain any combination of such substances in excess of a value to be fixed in accordance with that Council Regulation: or
  - (b) any added water.
- 2. In addition to complying with paragraph 1 above, pasteurised milk shall—
  - (a) have been obtained by means of a heat-treatment involving a high temperature for a short time (at least 71.7°C for 15 seconds or any equivalent combination) or a pasteurisation process using different time and temperature combinations to obtain an equivalent effect;
  - (b) show a negative reaction to the phosphatase test and a positive reaction to the peroxidase test using the methods of analysis specified in paragraph 2 of Schedule 11 and in the case of high temperature pasteurised milk, show a negative reaction to both tests and be labelled as "high-temperature pasteurised"; and
  - (c) meet the following microbiological standards in any random sampling checks carried out in the treatment establishment:

Pathogenic micro-organisms	Absence in 25g, $n = 5$ , $c = 0$
Coliforms (per ml)	n = 5, c = 1, m = 0 M = 5
Plate count at 21° (per ml) after incubation at 6° for five days.	$n = 5, c = 1, m = 5 \times 10^4, M = 5 \times 10^5$

**3.** In addition to complying with paragraph 1 above, sterilised and UHT milk shall, after it has spent fifteen days in a closed container at a temperature of  $30^{\circ}$ C or where necessary, seven days in a closed container at a temperature of  $55^{\circ}$ C, meet the following standards—

<sup>(8)</sup> OJ No. L224, 18.8.90 p.1.

<sup>(9)</sup> Relevant amending instrument is Commission Regulation (EC) No. 2701/94 (OJ No. L287, 8.11.94, p.7) which contains consolidated texts of Annexes I, II, III and IV to Council Regulation (EEC) No. 2377/90.

- (a) be organoleptically normal;
- (b) not show any sign of deterioration; and
- (c) have a plate count at  $30^{\circ}C \le 100$  per ml.

4. In addition to complying with paragraphs 1 and 3 above, sterilised milk shall have been heated and sterilised either in a hermetically sealed wrapping or container, the seal of which shall remain intact during such heat-treatment, or by use of the continuous flow process.

5. In addition to complying with paragraphs 1 and 3 above, UHT milk shall—

- (a) be obtained by applying heat to a continuous flow of raw milk entailing the application of a high temperature for a short time (not less that 135°C for not less than a second) so that all residual spoilage micro-organisms and their spores are destroyed, but the chemical, physical and organoleptic changes to the milk are minimal;
- (b) be placed immediately after completion of the heat-treatment process in aseptic opaque containers, or containers made opaque by the packaging; and
- (c) in cases where it is obtained from a heat-treatment process which employs the direct contact of milk and steam, the steam shall be obtained from potable water. Such steam shall not leave deposits of foreign matter in the milk or affect it adversely. The use of this process shall be so as not to cause any change in the water content of the treated milk.

6. Pasteurised milk which has been subjected to high-temperature pasteurisation, UHT milk or sterilised milk may be produced from raw milk which has undergone thermisation or an initial heat treatment in another processing or treatment establishment provided that—

- (a) the initial treatment shall have had a time-temperature combination which is lower than or equivalent to the pasteurisation process specified in paragraph 2 above;
- (b) milk which has undergone the initial treatment shall have shown a positive reaction to the peroxidase test, using the method of analysis specified in paragraph 2 of Schedule 11, before the second heat-treatment; and
- (c) such practice is brought to the attention of the approving authority.

7. Pasteurised milk may be produced from raw milk which has undergone only initial thermisation in accordance with the same conditions specified in paragraph 6 above.

**8** The definition of the symbols specified in paragraph 3 of Part II of Schedule 3 shall apply for the purposes of the tables in paragraph 1 of Part I, and paragraph 2 above of this Part.

SCHEDULE 5	Regulations 9(3)(b), (5), 13(1)(b)(vi) and
	19(c)

# **REQUIREMENTS FOR MILK USED FOR THE MANUFACTURE OF MILK-BASED PRODUCTS**

# PART I

## **RAW MILK**

1. Subject to paragraph 2 below, the occupier of the processing establishment shall take all necessary steps to ensure that the raw milk is treated, or that the production of milk-based products using raw milk shall commence:

- (a) as soon as possible after acceptance of the raw milk at the processing establishment, if the raw milk has not been refrigerated; or
- (b) within 36 hours of such acceptance, if the raw milk is kept at a temperature not exceeding 6°C; or
- (c) within 48 hours of such acceptance, if the raw milk is kept at a temperature of 4°C or lower; and
- (d) within 72 hours, in the case of buffaloes', ewes' or goats' milk.

**2.** For technological reasons relating to the manufacture of certain milk-based products, the times and temperatures referred to in paragraph 1 above may be exceeded with the authorisation of the approving authority.

# PART II

## **THERMISED MILK**

- **1.** Thermised milk shall:
  - (a) be obtained from raw milk and where thermisation of such raw milk has not commenced within 36 hours of its acceptance at the processing establishment, it shall have a plate count at 30°C prior to thermisation which does not exceed 300,000 per ml in the case of cows' milk;
  - (b) be obtained by the heating of raw milk for at least 15 seconds at a temperature between 57°C and 68°C such that after completion of the heating process the milk shows a positive reaction to the phosphatase test, using the method of analysis specified in paragraph 2 of Schedule 11; and
  - (c) have a plate count at 30°C equal to or less than 100,000 per ml before heat-treatment if it is used to produce pasteurised, UHT or sterilised milk.

# PART III

## **PASTEURISED MILK**

- **1.** Pasteurised milk shall:
  - (a) be obtained by means of a heat-treatment involving a high temperture for a short time (at least 71.7°C for 15 seconds, or any equivalent combination) or a pasteurisation process using different time and temperature combinations to obtain an equivalent effect; and
  - (b) show a negative reaction to the phosphatase test and a positive reaction to the peroxidase test using the methods of analysis specified in paragraph 2 of Schedule 11 and in the case of high temperature pasteurised milk, show a negative reaction to both those tests.

# PART IV

## **UHT MILK**

1. UHT milk shall be obtained by applying heat to a continuous flow of milk entailing the application of a high temperature for a short time (not less than +135°C for not less than a second) so that all residual spoilage micro-organisms and their spores are destroyed but the chemical, physical and organoleptic changes to the milk are minimal.

#### **SCHEDULE 6**

Reglations 3(3), 9(6) and 13(1)(b)(vi)

## **REQUIREMENTS FOR MILK-BASED PRODUCTS**

# PART I

## MICROBIOLOGICAL CRITERIA

1. On removal from the processing establishment milk-based products shall not contain pathogenic micro-organisms and toxins from pathogenic micro-organisms in such quantity as to affect the health of the ultimate consumer.

2. Sterilised or ultra heat-treated milk-based products which are in liquid or gel form and are intended for conservation at room temperature shall meet the following standards after incubation at  $30^{\circ}$ C for 15 days—

- (a) have a plate count at  $30^{\circ}C \le 100$  per ml; and
- (b) be organoleptically normal.

**3.** Subject to paragraph 5 below, milk-based products shall meet the standards referred to in the tables below upon removal from the processing establishment—

	Product	Type of Micro- organism	Standard (ml, g)
(i)	Cheese, other than hard cheese	Listeria monocytogenes	Absence in 25g where $n = 5$ , $c = 0$
(ii)	Milk-based products, other than cheese covered by (i) above	Listeria monocytogenes	Absence in 1g
(iii)	Milk powder	Salmonella spp	Absence in 25g where $n = 10, c = 0$
(iv)	Milk-based products, other than milk powder	Salmonella spp	Absence in 25g where $n = 5$ , $c = 0$

# A.

The sample of 25g referred to in paragraph (I) of table A above shall consist of 5 specimens of 5g taken from different parts of the same product.

D
D

	Product	Type of Micro- organism	Standard (ml, g)
(i)	Cheese made from raw milk or from thermised	1 2	n = 5, c = 2, m = 1,000, M = 10,000
	milk	Escherichia coli	
			n = 5, c = 2, m = 10,000, M = 100,000

	Product	Type of Micro- organism	Standard (ml, g)
(ii)	Soft cheese made from heat-treated milk	Staphylococcus aureus Escherichia coli	} n = 5, c = 2, M = 100, M = 1,000
(iii)	Fresh cheese	Staphylococcus aureus	n = 5, c = 2, m = 10, M = 100
	Powdered milk	22	
	Frozen milk-based products including ice- cream	"	

**4.** The definition of the symbols specified in paragraph 3 of Part II of Schedule 3 shall apply for the purposes of the tables in paragraph 3 above.

**5.** Testing of the milk-based products referred to in table A of paragraph 3 above shall not be compulsory for sterilised milk, preserved milk-based products and milk-based products where the heat-treatment was applied after wrapping or packaging.

6. Sampling programmes shall be drawn up by the occupier of the dairy establishment in the light of the nature of the dairy products and the principles of risk analysis.

7. In all cases where the standards in table A of paragraph 3 above are exceeded, the dairy products shall be excluded from human consumption and withdrawn from the market.

**8.** In all cases where the standards in table B of paragraph 3 above are exceeded, there shall be a review of the implementation of the methods for monitoring and checking critical points applied in the processing establishment. The occupier of the processing establishment shall inform the approving authority of the corrective procedures included in the production monitoring system to prevent any repetition of the occurrence.

**9.** Wherever the standard M in table B of paragraph 3 above is exceeded in the case of cheese made from raw milk, thermised milk or soft cheese, testing shall be carried out for—

- (a) the possible presence of strains of enterotoxigenic *Staphylococcus aureus* or *Escherichia coli* that are presumed to be pathogenic; and
- (b) if necessary the possible presence of staphylococcal toxins in such products,

by a method determined in accordance with Article 31 of Council Directive 92/46, as specified in paragraph 2 of Chapter II of Annex C to that Directive.

**10.** If the strains referred to in paragraph 9 above are identified or staphylococcus enterotoxins are found, then all the batches of the cheese involved shall be withdrawn from the market. In this case the occupier shall inform the approving authority of such findings, of the action taken to withdraw the batches in question and the corrective procedures introduced into the production monitoring system to prevent any repetition of the occurrence.

# PART II

### PASTEURISED CREAM

- 1. Pasteurised cream shall be heated—
  - (a) to a temperature not less than 63°C and retained at that temperature for not less than 30 minutes;

- (b) to a temperature not less than 72°C and retained at that temperature for not less than 15 seconds; or
- (c) to such other temperature for such other period of time as has equivalent effect to sub-paragraph (a) or (b) above necessary for the elimination of vegetative pathogenic organisms in the cream.
- 2. The cream shall—
  - (a) be cooled as soon as practicable after pasteurisation; and
  - (b) show a negative reaction to the phosphatase test, using the method of analysis specified in paragraph 5 of Schedule 11.

# PART III

#### **STERILISED CREAM**

- 1. Sterilised cream shall be heated—
  - (a) to a temperature not less than 108°C and retained at that temperature for not less than 45 minutes; or
  - (b) to such other temperature for such other period of time as has equivalent effect to subparagraph (a) above necessary for the elimination of vegetative pathogenic organisms.
- 2. The cream shall be cooled as soon as practicable after sterilisation.
- 3. Sterilised cream shall meet the standard referred to in paragraph 2(a) of Part I of this Schedule.

# PART IV

## **ULTRA HEAT-TREATED CREAM**

- 1. Ultra heat-treated cream shall be heated—
  - (a) to a temperature not less than 140°C and retained at that temperature for at least 2 seconds; or
  - (b) to such other temperature for such other period of time as has equivalent effect to subparagraph (a) above necessary for the elimination of vegetative pathogenic organisms.
- 2. The cream shall be cooled as soon as practicable after being ultra heat-treated.

**3.** Ultra heat-treated cream shall meet the standard referred to in paragraph 2(a) of Part I of this Schedule.

# PART V

## **PASTEURISED ICE-CREAM**

- 1. Pasteurised ice-cream shall be obtained by the mixture being heated-
  - (a) to a temperature of not less than 65.6°C and retained at that temperature for not less than 30 minutes;
  - (b) to a temperature of not less than 71.1°C and retained at that temperature for not less than 10 minutes; or

(c) to a temperature of not less than 79.4°C and retained at that temperature for not less than 15 seconds,

and then reduced to a temperature of not more than  $7.2^{\circ}$ C within  $1\frac{1}{2}$  hours and kept at such temperature until the freezing process is begun.

**2.** If the temperature of ice-cream has risen above minus 2.2°C at any time since it was frozen it shall not be sold or offered for sale unless—

- (a) it has again been subjected to the heat-treatment to which as a mixture it was required to be subjected under paragraph 1 above; and
- (b) after having again been frozen, it has been kept at a temperature not exceeding minus 2.2°C.

**3.** In the case of a complete cold mix which is reconstituted with the addition of water only, it shall not be necessary for it to be subjected to further heat-treatment by pasteurisation as specified in paragraph 1 above.

**4.** If a complete cold mix reconstituted with the addition of water only is frozen, it shall comply with paragraph 2 above.

# PART VI

## **STERILISED ICE-CREAM**

**1.** Sterilised ice-cream shall be obtained by the mixture being heated to a temperature of not less than 148°C for a least 2 seconds

2. After the mixture has been sterilised as specified in paragraph 1 above, it shall be reduced to a temperature of not more than  $7.2^{\circ}$ C within  $1\frac{1}{2}$  hours and shall be kept at such temperature until the freezing process is begun.

**3.** Paragraph 2 shall not apply to a mixture which has been sterilised in accordance with paragraph 1 above if immediately after the mixture has been sterilised it is placed in sterile airtight containers under sterile conditions and the container remains unopened.

**4.** If the temperature of ice-cream has risen above minus 2.2°C at any time since it was frozen it shall not be sold or offered for sale unless—

- (a) it has again been subjected to the heat-treatment to which as a mixture it was required to be subjected to under paragraph 1 above; and
- (b) after having again been frozen, it has been kept at a temperature not exceeding minus 2.2°C.

**5.** In the case of a complete cold mix which is reconstituted with the addition of water only, it shall not be necessary for it to be subjected to further heat-treatment by sterilisation as specified in paragraph 1 above.

**6.** If a complete cold mix reconstituted with the addition of water only is frozen, it shall comply with paragraph 4 above.

#### SCHEDULE 7

Regulations 4(3)(a) and (8), 11(1)(a), 13(3)(f) and 19(d)

#### **STORAGE REQUIREMENTS**

1. Immediately after milking, raw milk shall be placed in a clean place which is suitably equipped so as to prevent the raw milk suffering from any adverse effect.

- 2.—(1) Where raw milk is—
  - (a) collected daily from a production holding it shall, if not collected within two hours of milking, be cooled as soon as practicable after milking to a temperature of 8°C or lower and maintained at that temperature until collected; or
  - (b) not collected daily from a production holding it shall be cooled as soon as practicable after milking to a temperature of 6°C or lower and maintained at that temperature until collected.

(2) For technological reasons relating to the manufacture of certain milk-based products, and provided the end products meet the microbiological criteria specified in Part I of Schedule 6, the temperature referred to in sub-paragraph (1) above may be exceeded with the authorisation of the approving authority.

**3.** Upon acceptance at a treatment establishment milk shall, unless heat-treated within four hours of acceptance, be cooled to a temperature of 6°C or lower, if not already at such temperature, and maintained at that temperature until heat-treated.

4. When the pasteurisation process is completed, pasteurised milk shall be cooled as soon as practicable to a temperature of  $6^{\circ}$ C or lower.

**5.** Subject to paragraph 7 below, any dairy product not intended to be stored at ambient temperature shall be cooled as quickly as possible to the temperature established by the manufacturer of that product as suitable to ensure its durability and thereafter stored at that temperature.

6. Where dairy products other than raw milk are stored under cooled conditions, their storage temperatures shall be registered and the cooling rate shall be such that the products reach the required temperature as quickly as possible.

7. The maximum temperature at which pasteurised milk may be stored until it leaves the treatment establishment shall be  $6^{\circ}$ C.

#### SCHEDULE 8

Regulations 11(1)(a) and (b), 13(3)(f) and 19(d)

#### **TRANSPORT REQUIREMENTS**

# PART I

## TEMPERATURE

**1.** The temperature of raw milk during transport to a treatment or processing establishment shall not exceed 10°C, unless the milk has been collected within 2 hours of milking. However, for technological reasons relating to the manufacture of certain milk-based products and provided the end products meet the microbiological criteria specified in Part I of Schedule 6, such requirement as to temperature may be exceeded with the authorisation of the approving authority.

**2.**—(1) Subject to sub-paragraph (2) and (3) below, the temperature of pasteurised milk during transportation in tanks or packed in small containers or in churns shall not exceed  $6^{\circ}$ C.

(2) Where pasteurised milk is intended for delivery to a retail business, the temperature of such milk during transportation shall not exceed  $8^{\circ}$ C.

(3) The requirements as to temperature specified in sub-paragraph (1) and (2) above shall not apply for milk intended for doorstep delivery.

**3.** Any vehicle or container used for transporting raw or pasteurised milk shall be designed and equipped in such a way that the temperatures specified in paragraph 1 and 2 above shall be maintained throughout the period of such transport.

# **PART II**

#### HYGIENE

1. Any vehicle used for transporting heat-treated drinking milk and milk in small containers or in churns shall be so designed as to give the containers or churns adequate protection against all contamination and atmospheric influences. It shall be maintained in good condition and shall not be used to transport any animals of any species or any other product or object likely to cause the milk to deteriorate. Those parts of the vehicle intended to come into contact with the small containers or churns shall be smooth and easy to wash clean and disinfect.

**2.** Any tank, churn or other container used for transporting raw milk or pasteurised milk shall be so designed that—

- (a) any surface which may come into contact with the milk shall be made of a material which is easy to wash, clean and disinfect, resists corrosion, and does not transfer substance to the milk in such quantity as to endanger human health, impair the composition of the milk or adversely affect the organoleptic characteristics of the milk;
- (b) the milk can drain away completely;
- (c) if they are fitted with taps, these shall be easy to remove, dismantle, wash, clean and disinfect; and
- (d) except in the case of a container or tank designed solely for the transport of raw milk, any container or tank in which pasteurised milk is transported shall be hermetically sealed before and during transportation by means of a watertight sealing device.

**3.** As soon as possible after each journey, or after each series of journeys where there is only a very short space of time between unloading and the following loading, but in any event at least once each working day, any container or tank used to transport raw milk or pasteurised milk to a dairy establishment shall be washed, cleaned and disinfected after each use and as necessary before further use.

**4.** Any tank used to transport milk shall bear a clear indication that it may be used only for the transport of foodstuffs.

5. Any tank used to transport dairy products may not be used for the transport of other foodstuffs unless adequate measures are taken to prevent contamination or deterioration of those dairy products.

6. Dairy products shall be despatched in such a way that they are protected during transportation from anything liable to contaminate them or cause them to deteriorate. For this purpose account shall be taken of the duration of the journey, the means of transport employed and the weather conditions.

# **PART III**

# **COMMERCIAL DOCUMENT**

**1.** Heat-treated drinking milk and milk-based products shall be accompanied during transport by a commercial document bearing the following particulars—

- (a) the details required on the health mark, specified in paragraph 4 and 5 of Part II of Schedule 10;
- (b) an indication of the nature of the heat-treatment used to produce the heat-treated drinking milk or milk-based product;
- (c) an indication of the initial treatment in the case of heat-treated drinking milk referred to in paragraphs 6 and 7 of Part III of Schedule 4; and
- (d) an indication enabling the identification of the approving authority responsible for supervising the dairy establishment of origin, if such information is not clear from the approval number.

#### SCHEDULE 9

Regulations 11(1)(c) and 19(a)

## WRAPPING AND PACKAGING

The requirements of this Schedule shall apply without prejudice to the Council Directive 89/109/ EEC on the approximation of the laws of the Member States relating to materials and articles intended to come into contact with foodstuffs(10).

1. Wrapping and packaging shall be strong enough to protect the dairy products effectively.

**2.** The wrapping and packaging of dairy products shall take place under satisfactory hygienic conditions and in rooms provided for that purpose.

**3.** Notwithstanding paragraph 2 above, the manufacture of dairy products and packaging operations may take place in the same room if the following conditions are satisfied—

- (a) the room shall be sufficiently large and equipped to ensure the hygiene of the operations;
- (b) the wrapping and packaging shall have been brought to the treatment or processing establishment in a protective cover in which they were placed immediately after manufacture and which protects the wrapping or packaging from any damage during transport to the dairy establishment, and they shall have been stored there under hygienic conditions in a room intended for that purpose;
- (c) the rooms for storing the packaging material shall be free from vermin and from amounts of dust which could constitute an unacceptable risk of contamination of the product and shall be separated from rooms containing substances which might contaminate the products. Packaging shall not be placed directly on the floor;
- (d) packaging shall be assembled under hygienic conditions before being brought into the room, except in the case of the automatic assembly or packaging, provided that there is no risk of contamination of the products;
- (e) packaging shall be brought into the room under hygienic conditions and used without delay. It shall not be handled by staff handling unwrapped products, if there is a risk of cross-contamination; and

<sup>(10)</sup> OJ No. L40, 11.2.83, p.38, to which there are amendments not relevant to these Regulations.

(f) immediately after packaging, the dairy products shall be placed in the rooms provided for storage.

**4.** Bottling or filling of containers with heat-treated milk or liquid milk-based products shall be carried out mechanically and the sealing of the containers shall be carried out automatically. However in the case of limited production, non-automatic sealing methods may be used with the authorisation of the approving authority, provided that those methods provide equal assurances with regard to hygiene.

5. Wrapping or packaging may not be re-used for dairy products, except where the containers are of a type which may be re-used after thorough cleaning and disinfecting.

6. Sealing shall be carried out in the dairy establishment in which the last heat-treatment of drinking milk or liquid milk-base products has been carried out, immediately after filling, by means of a sealing device which ensures that the milk is protected from any adverse effects of external origin on its characteristics. The sealing device shall be so designed that once the container has been opened, the evidence of opening remains clear and easy to check.

## SCHEDULE 10

Regulation 11(1)(d) and 21(5)(b)

#### LABELLING AND HEALTH MARKING

## PART I

#### LABELLING

1. In addition to the health mark requirements specified in Part II of this Schedule, the occupier of the dairy establishment shall ensure that the packaging of heat-treated milk and liquid milk-based products shall display visibly and legibly the following particular for control purposes—

- (a) the nature of the heat-treatment applied to the milk;
- (b) an indication, which may be in code, enabling the date of the last heat-treatment referred to in sub-paragraph (a) above to be established; and
- (c) in the case of pasteurised milk, the temperature at which the product shall be stored.

**2.** The particulars specified in paragraph 1 above need not appear on re-usable glass bottles referred to in regulation 27 of the Food Labelling Regulations 1984(11).

**3.** Without prejudice to the provisions of the Food Labelling Regulations 1984, the labelling must show clearly for inspection purposes the following particulars—

- (a) the words "raw milk" for raw drinking milk intended for direct human consumption;
- (b) the words "made with raw milk" for milk-based products manufactured from raw milk whose manufacturing process does not include thermisation or heat-treatment;
- (c) in the case of milk-based products other than those referred to in sub-paragraph (b) above, the nature of any heat-treatment applied at the end of the manufacturing process; or
- (d) for milk-based products in which the growth of micro-organisms can occur, the use-by or minimum durability date.

<sup>(11)</sup> S.I. 1984/1305, the relevant amending instrument is S.I. 1990/2488.

# PART II

## **HEALTH MARK**

**1.** Dairy products shall carry a health mark in an easily visible place. It shall be legible, indelible and its characters easily distinguishable.

**2.** Marking shall be carried out during or immediately after manufacture in the dairy establishment. The health mark may be applied to the dairy product, or to the wrapping, or to a label affixed to the wrapping. Where small dairy products are individually wrapped and packaged together or where such small individually wrapped portions are supplied to the ultimate consumer, it shall be sufficient for the health mark to be applied to their collective packaging.

**3.** Where a dairy product marked in accordance with paragraphs 1 and 2 above is subsequently placed in packaging, the health mark shall also be applied to that packaging.

**4.** Subject to paragraph 5 below, the health mark shall consist of an oval surround containing in legible form and printed capital letters the following information—

(a) either:

- (i) in the upper part, the letters "UK", followed by the approval number of the dairy establishment, and
- (ii) in the lower part, the letters "EEC";
- (b) or:
  - (i) in the upper part, the words "UNITED KINGDOM",
  - (ii) in the centre, the approval number of the dairy establishment, and
  - (iii) in the lower part, the letters "EEC";

(c) or:

- (i) in the upper part, the letters "UK";
- (ii) in the centre, a reference to where the approval number of the establishment is shown, and
- (iii) in the lower part, the letters "EEC".

**5.** In the case of bottles, packaging and containers referred to in regulation 27 of the Food Labelling Regulations 1984, the health mark may indicate only the letters "UK" and the approval number of the establishment.

6. The health mark may be applied to the product, wrapping or packaging by an ink stamp or by branding, or it may be printed on or applied to a label.

7. The health mark may also consist of an irremovable plate or resistant material complying with hygiene requirements and bearing the information specified in paragraph 4 above.

#### **SCHEDULE 11**

**Regulation 10** 

#### **METHODS OF ANALYSIS**

1. The reference methods for the analysis and testing of dairy products in order to ascertain if they meet the requirements specified in Schedules 3, 4, 5 and 6 shall be those specified in the following paragraphs of this Schedule.

2. in relation to raw milk and heat-treated milk, the methods shall be those specified in Commission Decision 91/180/EEC(12) for the following—

- (a) enumeration of micro-organisms—plate count at 30°C;
- (b) enumeration of somatic cells in cows' milk;
- (c) determination of phosphatase activity in cows' milk;
- (d) determination of peroxidase activity in cow's milk;
- (e) detection of pathogenic micro-organisms;
- (f) enumeration of coliforms—colony count at 30°C; and
- (g) enumeration of micro-organisms—plate count at 21°C.

**3.** In relation to milk-based products, the test for enumeration of micro-organisms—plate count at 30°C shall be the method specified in IDF Standard 100B: 1991; Milk and milk products—micro-organisms—colony count at 30°C.

**4.** In relation to milk-based products, the test for enumeration of coliforms shall be the method specified in ISO 5541 Part 2 1986: Milk and milk products—Part 2; Most probable number technique at 30°C.

5. In relation to the following tests, the methods for the analysis and testing shall be those specified below—

Test	Method
(a) Enumeration of <i>Staphylococcus aureus</i>	Provisional IDF Standard 145: 1990; Milk and milk-based products.
	Enumeration of <i>Staphylococcus aureus</i> in products other than dried milk-Colony count technique at 37°C.
(b) Enumeration of <i>Stapjylococcus aureus</i> in powdered milk	Provisional IDF Standard 138: 1986; Dried Milk. Enumeration of <i>Staphylococcus aureus</i> . Colony count technique at 37°C.
(c) Detection of Salmonella spp	ISO 6597: 1993; Microbiology— General guidance on methods for the detection of <i>Salmonella</i> and IDF Standard 93A: 1985; sample preparation.
(d) Detection of <i>Listeria monocytogenes</i>	ISO 10560: 1993; Milk and milk productgs— Detection of <i>Listeria monocytogenes</i> .
(e) Enumeration of <i>Escherichia coli</i> in milk- based products	<ul> <li>Provisional IDF standard 170: 1994. Milk and milk products—Enumeration of presumptive <i>Escherichia coli</i> content by:</li> <li>(i) Most probable number technique.</li> <li>(ii) most probable number technique with use of 4-methylumbelliferyl –β –D–glucuronide (MUG).</li> <li>(iii) Colony count technique at 44°C using membranes.</li> </ul>

<sup>(12)</sup> OJ NO. L93, 13.4.91, p.1.

Test	Method
(f) Detection of phosphatase (Residual) in cream	AOAC official method 950.41: Official Methods of Analysis, 16th edition: 1995.
(g) Detection of phosphatase (Reactivated and Residual) in cream	AOAC official method 965.27: Official Methods of Analysis, 16th edition: 1995.

**6.** any other internationally accepted analysis and test method as referred to in Article 20(1) of Council Directive 92/46 shall be recognised as a reference method.

7. In this Schedule—

"IDF standard" means a standard of the International Dairy Federation;

"ISO" means a standard of the International Organisation for Standardisation; and

"AOAC" means the Association of Official Analytical Chemists.

### **SCHEDULE 12**

**Regulation 23** 

## REVOCATIONS

Column 1	Column 2	Column 3
Milk and Dairies (Channel Islands and South Devon Milk) Regulations 1956.	S.I. 1956/919	The whole Regulations.
Milk and Dairies (General) Regulations 1959.	S.I. 1959/277	Parts II to VI, Parts VIII to X and the Schedule.
The Milk and Dairies (Milk Bottle Caps) (Colour) Regulations 1976.	S.I.1976/2186	The whole Regulations.
Milk and Dairies (General) (Amendment) Regulations 1977.	S.I. 1977/171	The whole Regulations.
Milk and Dairies (General) (Amendment) Regulations 1979.	S.I. 1979/1567	The whole Regulations.
Milk-based Drinks (Hygiene and Heat Treatment) Regulations 1983	S.I. 1983/1508	The whole Regulations.
Milk and Dairies (Heat Treatment of Cream) Regulations 1983.	S.I. 1983/1509	The whole Regulations.
The Food (Revision of Penalties) Regulations 1985.	S.I. 1985/67	The reference to the Milk- based Drinks (Hygiene and Heat Treatment) Regulations 1983 in Part I of the Schedule.
Milk and Dairies (Revision of Penalties) Regulations 1985.	S.I. 1985/68	Regulation 2(2) and the references in the schedule to

Column 1	Column 2	Column 3
		the Milk and Dairies (Channel Islands and South Devon Milk) Regulations 1956, the Milk and Dairies (General) Regulations 1959, the Milk and Dairies (Semi-skimmed and Skimmed Milk) (Heat Treatment and Labelling) Regulations 1973, the Milk and Dairies (Milk Bottle Caps) (Colour) Regulations 1976 and the Milk and Dairies (Heat Treatment of Cream) Regulations 1983.
Milk-based Drinks (Hygiene and Heat Treatment) (Amendment) Regulations 1986.	S.I. 1986/720	The whole Regulations.
Milk and Dairies (Heat Treatment of Cream) (Amendment) Regulations 1986.	S.I. 1986/721	The whole Regulations.
Importation of Milk Regulations 1988.	S.I. 1988/1803	The whole Regulations.
Milk and Dairies (Semi- skimmed and Skimmed Milk) (Heat Treatment and Labelling) Regulations 1988.	S.I. 1988/2206	The whole Regulations.
Milk and Dairies (Semi- skimmed and Skimmed Milk) (Heat Treatment and Labelling) (Amendment) Regulations 1989.	S.I. 1989/2382	The whole Regulations.
Milk (Special Designation) Regulations 1989.	S.I. 1989/2383	The whole Regulations.
Milk and Dairies and Milk (Special Designation) (Charges) Regulations 1990.	S.I. 1990/1584	The whole Regulations.
Food Safety (Sampling and Qualifications) Regulations 1990.	S.I. 1990/2463	The references in Schedule 1 to the Milk-based Drinks (Hygiene and Heat Treatment) Regulations 1983, the Milk and Dairies (Heat Treatment of Cream) Regulations 1983, the Milk and Dairies (Semi- skimmed and Skimmed Milk) (Heat Treatment and Labelling) Regulations

Column 1	Column 2	Column 3
		1988 and the Milk (Special Designation) Regulations 1989.
The Food Safety Act 1990 (Consequential Modifications) (England and Wales) Order 1990.	S.I. 1990/2486	Regulations 11, 12, 13 and 16(1), (3) and (4) and the references to: the Milk and Dairies (Channel Islands and South Devon Milk) Regulations 1956 in Part I of Schedule 1, Schedule 3 and Schedule 5; the Milk and Dairies (Milk Bottle Caps) (Colour) Regulations 1976 in Part I of Schedule 1, Part I of Schedule 3 and Schedule 5; the Milk-based Drinks (Hygiene and Heat Treatment) Regulations 1983 in Part I of Schedule 1, Part II of Schedule 4 and Schedule 6; the Milk and Dairies (Heat Treatment of Cream) Regulations 1983 in Part I of Schedule 1, Part II of Schedule 4 and Schedule 5; the Milk and Dairies (Semi- skimmed and Skimmed Milk) (Heat Treatment and Labelling) Regulations 1988 in Part I of Schedule 1, Part II of schedule 4 and Schedule 5; the Milk (Special Designation) Regulations 1989 in Part I of Schedule 1 and Part II of Schedule 4.
Milk and Dairies (Semi- skimmed and Skimmed Milk) (Heat Treatment and Labelling) (Amendment) Regulations 1990.	S.I. 1990/2491	The whole Regulations.
Milk (Special Designation) (Amendment) Regulations 1990.	S.I. 1990/2492	The whole Regulations.
The Food Safety (Exports) Regulations 1991.	S.I. 1991/1476	The reference in Schedule 1 to the Milk-based Drinks (Hygiene and Heat Treatment) Regulations 1983, the Milk and Dairies (Heat Treatment of Cream) Regulations 1983, the Milk and Dairies (Semi-

Column 1	Column 2	Column 3
		skimmed and Skimmed Milk) (Heat Treatment and Labelling) Regulations 1988 and the Milk (Special Designation) Regulations 1989.
Milk (Special Designation) Regulations (Amendment) Order 1992.	S.I. 1992/1208	The whole Regulations.
Milk and Dairies (Standardisation and Importation) Regulations 1992.	S.I. 1992/3143	Regulations 3, 5 and 6.

## **SCHEDULE 13**

Regulation 24(3)

## AMENDMENT OF THE FOOD LABELLING REGULATIONS 1984

- **1.** In regulation 2(1)—
  - (a) after the definition of "liqueur wine" there shall be inserted the following definition-
    - ""milk" means milk intended for sale, or sold, for human consumption of-
    - (a) one or more cows, and includes raw milk, standardised whole milk, nonstandardised whole milk, semi-skimmed milk and skimmed milk, and
    - (b) one or more ewes, goats or buffaloes:";
  - (b) after the definition of "protein" there shall be inserted the following definitions—

""raw milk", "standardised whole milk", "non-standardised whole milk", "semiskimmed milk" and "skimmed milk", in relation to cows' milk, have the meanings respectively assigned to them by Council Regulation (EEC) No. 141/71, as amended,".

**2.** In regulation 3(1), for the words "they shall not" there shall be substituted the words "Part IV shall not".

3. After regulation 31A there shall be inserted the following regulation—

#### "Health warning on cows' raw milk

**31B.**—(1) Subject to paragraph (3) of this regulation, and except in cases to which paragraph (2) of this regulation applies, the container in which any raw milk is sold shall be marked or labelled with the words "this milk has not been heat-treated and may therefore contain organisms harmful of health".

(2) Subject to paragraph (3) of this regulation, in the case of raw milk which is not prepacked and is sold at a catering establishment there shall appear—

- (a) on a label attached to the container in which the milk is sold, or
- (b) on a ticket or notice that is readily discernible by an intending purchaser at the place where he chooses that milk,

the words "Milk supplied in this establishment has not been heat-treated and may therefore contain organisms harmful to health".

- (3) This regulation shall not apply to raw milk from ewes, goats or buffaloes.".
- 4. In regulation 24, in the definition of "prepacked for direct sale" in paragraph (3)—
  - (a) in sub-paragraph (a), for the words "and bread" there shall be substituted the words ", bread and milk", and
  - (b) the full stop at the end of sub-paragraph (b) shall be replaced by a semi-colon and after that sub-paragraph there shall be inserted the following sub-paragraph—
    - "(c) in relation to cows' milk, put into containers on the premises where the milk is produced by the person owning or having control of the herd from which the milk is produced for sale by him on those premises or from a vehicle or stall used by him."
- 5. In regulation 33, after paragraph (2), there shall be inserted the following paragraph—

"(3) Notwithstanding paragraphs (1) and (2) of this regulation—

- (a) in the case of milk that is contained in a bottle, any particulars which are required to be given under these Regulations may be given on the bottle cap, and
- (b) in the case of raw milk contained in a bottle, the particulars specified in regulation 31B above shall be given elsewhere other than on the bottle cap.".

**6.** In regulation 35, in paragraphs (1) and (2), after the words "of alcoholic strength by volume" in each paragraph there shall be inserted the words "or, in the case of cows' raw milk, the required cautionary words".