

**RETAIL BULK**

**MILK GUIDELINES**

## The importance of control over milk

The importance of control over milk as a perishable food needs no emphasis. As is the case with many other perishable food products such as meat and fish, milk can be the source of major food safety risks unless effectively and hygienically produced, processed and handled.

The organised dairy industry acknowledges the importance of product compliance with product composition, food safety and metrology standards as a prerequisite for the growth of the dairy industry as well as in the interest of the dairy consumer. This is because substandard products reaching the retail can cause extensive and prolonged harm to both the industry and the consumer.

Milk, with the exception of ultra-high temperature en sterilised heat treatment, is offered to the consumer in four different categories namely packed pasteurised, packed unpasteurised, retail bulk pasteurised and unpasteurised milk. Retail bulk milk, whether unpasteurised or pasteurised, is known to be a product exposed to a higher degree of food safety risks due to unique practices during the collection, handling, transportation, processing and sale thereof.

In a bid to assist businesses engaging in the retail bulk milk sector, the Dairy Standard Agency (DSA) has launched this revised edition with statutory funding obtained from Milk SA. These *Retail Bulk Milk Guidelines* are intended to serve as a supportive tool and promote regulatory compliance of retail bulk milk, **and should therefore be used in conjunction with the respective acts and regulations.**

To make the interpretation and application of the law and voluntary standards easier, the DSA also published guideline documents namely the *Code of Practice for Milk Producers* and the *Code of Practice for the Secondary Industry*. The guidelines are purpose-designed to allow the reader to understand the legal and voluntary standards in a systematic and logic manner, as it applies to legal compliance and prerequisite programmes for the primary and secondary industry.

For more information regarding the guidelines, regulations and standards, contact the DSA on 012 665 4250 and [info@dairystandard.co.za](mailto:info@dairystandard.co.za), or visit our website at [www.dairystandard.co.za](http://www.dairystandard.co.za).

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## 1. Introduction

Milk quality is the mainstay of the dairy industry and it is important to maintain consumers' trust in the product by ensuring quality at all times. To assist any seller of retail bulk milk in maintaining retail bulk milk quality standards, the Dairy Standard Agency (DSA) has compiled this guideline, containing all the information you may require.

For the purpose of this booklet, retail bulk milk is categorised as:

- Raw milk sold directly to consumers for human consumption.
- Raw milk received with the intention to process at the milk shop and to sell as pasteurised milk.
- Pasteurised milk that has been pasteurised elsewhere at an approved processing facility and sold to consumers at the milk shop as bulk milk.

It is recommended that the *DSA Code of Practice for the Secondary Dairy Industry* is consulted and used in conjunction with these guidelines when raw milk is further processed (heat treated) at the milk shop.

## 2. Legislation

The cornerstone of the guidelines in this booklet is legislation: acts, regulations and standards governing milk and other dairy products. To understand it, is necessary to know where from, hence the overview of the applicable legislation.

Before a milk shop can sell bulk milk to consumers it is required that the responsible person obtains a Certificate of Acceptability (COA) from the local health authority.

The following legislation applies to a retailer of bulk milk:



### 2.1 Health legislation:

- **Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972)**
  - Regulation R961 of 23 November 2012 – Regulations relating to hygiene requirements for milking sheds, the transport of milk and related matters.
  - Regulations governing general hygiene requirements for food premises and the transport of food.
  - Regulation R1555 of 21 November 1997 – Regulations and related matters relating to milk and dairy products.

### 2.2 Agricultural legislation:

- **Agricultural Product Standards Act, 1990 (Act 119 of 1990)**
  - Regulation R260 of 28 March 2015 – Regulations relating to dairy products and imitation dairy products.

## 3. The milk supplier

It is important that the milk shop owner controls the quality of milk received from the supplier.



Where applicable, the milk shop must have access to copies of the following documentation:

- A valid COA of the milking shed for every milk supplier.
- A valid declaration for TB and CA issued by the state veterinarian.
- A valid COA of the processing facility from which pasteurised milk is purchased.



All milk received on the premises shall adhere to the minimum legal requirements as per Regulations R961 and R1555.

### 3.1 Collection of milk on the farm or at the processing facility

The milk shop owner can collect milk on the farm or at the processing facility by means of own transport or by making use of a transport contractor with a tanker driver.

The duties of a tanker driver as prescribed in Regulation R961, and can also be obtained in *The DSA Code of Practice for the Secondary Dairy Industry*.

When collecting and transporting milk from the farm or a processing facility, it is recommended that the following guidelines are followed:

- To maintain hygiene standards, it is necessary to conduct visual physical inspections of the bulk milk holding tank or bulk milk containers. The tank or containers should be manufactured

preferably from stainless steel and maintained in such a way that there is no risk of physical contamination.



- If more than one milk supplier is used, individual milk sample collection and identification of samples must be implemented at every milking shed where milk is loaded. The samples are used as reference and should be handled hygienically and kept cold ( $\leq 7^{\circ}\text{C}$ ) during transport.



- The temperature of the milk in the bulk cooling tank must be taken before collection. Ensure that the temperature of the milk is  $\leq 5^{\circ}\text{C}$  before loading and keep record thereof.
- One of the following two tests is to be conducted before the milk is loaded (to ensure stability of the milk):
  - o Alizarol test method with record of the results.



- o Clot-on-boiling test method with record of the results.

Both tests are prescribed in Regulation R1555. See Section 3.2 of this booklet for the specifications of these tests.

- Ensure that the milk is transported to the milk shop in an insulated food grade container, vehicle or tanker. It is advisable to conduct hygiene and condition inspections on vehicles/ tankers or containers in which milk is delivered to the shop.



- Cleaning programmes/procedure should be in place for tankers or containers used to transport milk.

Monthly hygiene surface swabs are recommended to verify the effectiveness of the cleaning programmes, along with records thereof.

A food safety inspection by a competent person to ensure raw milk integrity on the milking shed during milking hours is recommended. This is to ensure that good milking practices, in accordance with R961, are implemented by the farmer.

### 3.2 Reception of milk at the milk shop

The area at the milk shop/retail store used by the delivery vehicle must be paved and feature a slope to prevent the accumulation of water or effluent.

It is the duty of the milk shop owner to ensure that all milk batches received at the store at least conform to the following:

- The temperature specifications for milk at reception ( $\leq 7^{\circ}\text{C}$ ) and storage ( $\leq 4^{\circ}\text{C}$ ) must be adhered to at all times. Temperature records must be kept.



- Test results indicating that the milk has been subjected to the alizarol test when raw or at least the clot-on-boiling method. If the test was not done at the milk supplier, it should be carried out at the milk shop and records thereof kept.



Specifications for alizarol test: Acceptable milk is light purple with no flakes.

maintained by the milk shop owner if test results show non-compliance.

Specifications for clot-on-boiling test: Normal milk is negative. The result is positive if all the milk clots or if floccules are found to attach to the sides of the tube when it is returned to the vertical position.

- Records with test results for the presence of antibiotics and or antimicrobial substances should be provided by the supplier of milk to the milk shop owner per delivery. If these test results are



not available, it is the responsibility of the milk shop to either inspect the milk supplier's system for the management of antibiotic treatment or implement on-site testing for the presence of antibiotics by making use of an antibiotic test. Proof of such an inspection or antibiotic test results should be available on request.

Specifications for antibiotic test: Acceptable milk test result is negative.

### 3.3 Collection and receiving of pasteurised milk

- Proof is required from the processing facility that the milk has passed the phosphatase test, in the event of pasteurised milk being delivered for bulk retail purposes. The phosphatase test is performed on pasteurised milk to determine the effectiveness of the pasteurisation.

Specification for phosphatase test: Acceptable milk is negative.

- Records are required of each delivery as well as corrective actions to be

## 4. Pasteurisation/processing of milk at the milk shop

As it is not in the scope of this booklet to elaborate on the processing of milk, it is recommended that the *DSA Code of Practice for the Secondary Dairy Industry* be consulted and used in conjunction with these guidelines.

The following is a short description of the pasteurisation of milk:

Pasteurisation is a heat treatment process applied to milk with the aim of destroying disease-causing micro-organisms. Research has shown that pasteurisation has a minor or zero impact on the nutritional value of milk and that it is still the safest course of action.

Two methods of pasteurisation that can be applied include:

High-temperature-short-time (HTST)/plate pasteurisation at 72 - 75°C for 15 - 20 seconds.



Low-temperature-long-time (LTLT)/batch pasteurisation at >66°C for 30 minutes.



Pasteurisation of milk by any means requires compliance with regulations. To assist with this compliance, the following guidelines are provided:

- Thermographic recording of pasteurisation must be kept for a minimum of four weeks. Ensure that the correct time temperature combinations are used during pasteurisation.



- Pasteuriser thermometers should at least be calibrated annually and records must be kept.
- Conduct the phosphatase test to verify the effectiveness of pasteurisation, preferably per batch on site, or at least monthly by an external laboratory or when there is reason to believe that effective pasteurisation was compromised. Records of the test results must be kept and an action plan should be in place and implemented when there is reason to believe that pasteurisation was not effective.
- Ensure that the pasteuriser is designed for intended use. The pasteuriser should be constructed of suitable material and the surface in contact with the milk should be smooth, resistant to corrosion, non-absorbent and with no open joints or open ends. The balance tank, when in use, must be fitted with a lid during pasteurisation.

- The milk should be cooled down without delay after pasteurisation, to reach a temperature of  $\leq 4^{\circ}\text{C}$  within a reasonable time (30 minutes).
- The pasteuriser should be cleaned and sanitised by using the correct chemicals, at the prescribed concentration, temperature and time parameters.

### 5. Requirements for bulk storage of milk: area, tank and equipment

The area, tank and equipment on the premises should comply with the following:

- The floor surfaces must be properly sloped and drained.

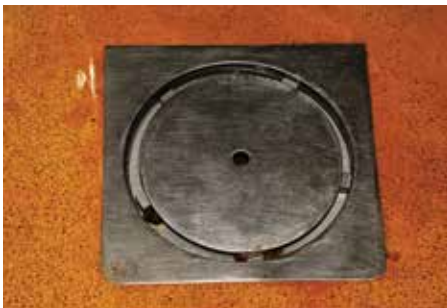


- A specially designed stainless steel or equivalent material bulk tank should be used for the storage of milk. The tank may not be made wholly or partly of copper, copper alloy or toxic material which can come into contact with the milk. The tank must have a smooth finish free of open seams, cracks and rust stains.
- The use of two tanks on a rotational basis is required by regulation, to facilitate product rotation and cleaning. Product rotation means that new milk is not mixed with old milk, as it would avoid a negative impact on the bacteriological quality of the milk.
- The tanks must be clearly marked indicating:
  - Description of the product e.g. 'Pasteurised full-cream milk' or 'Unpasteurised full-cream milk'.





- Name and full physical address of the owner of the tank, whether it is the milk shop owner or supplier of the milk, milk producer or processor.
- The tank must be designed in such a manner that it has a slope toward the drainage outlet.



- The tank must be provided with an agitator made from stainless steel or equivalent material capable of thoroughly mixing the content of the tank. The tank must be provided with a lid, where applicable, that closes and seals properly to protect the milk from insects, dust and other contaminants.
- The tank must have a thermometer installed that can measure the temperature of the milk accurately to 1°C. The thermometer must be calibrated/verified.
- The tank must have a cooling unit that is capable of cooling the milk to 5°C or colder within three hours, and must

be able to maintain such temperature during the storage of milk.

- Temperatures of milk in storage must be taken daily, recorded and kept on file for one month.
- The tank must not be installed closer than 0,5m to the ceiling or to any other wall for effective cleaning and maintenance purposes.



- The milk tank must be installed in such a way that a food-graded milk pipe can be connected from the delivery vehicle to the milk tank.



- Connections must be restricted to a minimum, with pipes being as short as possible (maximum length 6m).
- All taps and connections must be made of stainless steel and should be easy to clean. The use of ball valves on any dairy equipment is not recommended.
- The tank outlet must be screw-threaded and capped when not in use to prevent contamination.



- The tank must be properly insulated so that there will not be an increase in the temperature of the milk of more than 3°C during a twelve-hour period, in the event of a power failure.

### 6. Bottling/packing and selling of milk

- Only new bottles may be used for in-store bottling.
- The packaging material should be stored above floor level and away from wall surfaces.
- Packaging such as plastic bottles and caps must be stored in liners and sealed when not in use.
- The tank must be equipped with a tap that is used to fill the client's container.
- The design of the tap should allow for adequate, easy cleaning in a suitable sanitising agent.
- It is recommended that the opening and closing mechanism of the tap be equipped with a butterfly valve and

not a ball valve.

- Milk must preferably not be scooped out of the tank with a container or transferred to the final container by means of a third container. If a third container is used, it is recommended that such a container be stored in a sanitising agent when not in use.
- The sanitising agent should be replaced regularly.
- Only dedicated staff are permitted to discharge milk from bulk tank containers.
- Hand washing and sanitising is recommended before milk is being handled as well as frequent sanitation of the outlet tap.

### 7. Cold rooms and display fridges

- Surfaces of cold rooms and fridges must be smooth, impervious and washable.
- Cooling units/fridges must be kept free from mould growth.
- Inspection checks on temperature dials should be conducted on a daily basis and records kept thereof.



### 8. Cleaning chemicals and cleaning equipment

- Responsible individuals must be identified and appropriately trained for the handling of chemicals. There should also be a dedicated and trained responsible person for handling and issuing of cleaning chemicals.



- Adequate and appropriate chemicals must be used at all times. No household chemicals may be used. Cleaning chemicals must be SANS 1828/ SANS 1853/SABS certified and registration marked or on the label.
- Cleaning chemicals should be stored separately from food and food containers in a locked container or area. The chemical storage area should be properly ventilated.
- Appropriate cleaning equipment that is in a good condition should be used – industrial/food grade, e.g. no woven cloths, scotch bright with loose threads/fibres, wood or steel wool.
- Cleaning equipment should be clearly marked and stored in a dedicated space when not in use.
- Cloths should be cleaned and stored in sanitising agent when not in use.



### 9. Cleaning and sanitising procedures

- A complete cleaning programme for all equipment and areas must be available on the premises.
- The chemical supplier can be requested to assist in compiling a cleaning manual.
- The bulk milk tanks must be emptied and properly cleaned and sanitised between batches of milk received, at least once every 24 hours.



### Cleaning in place (CIP) and cleaning out-of-place (COP) procedures

Control must be exercised over the following procedures:

- Temperature monitoring (thermographic control).
- Time control.
- The strength of dosages is to be verified.
- To verify the effectiveness of the cleaning programmes, it is necessary to do environmental testing of food contact surfaces and to analyse rinse water.
- The bacteriological standard of 100 bacteria per 1cm<sup>2</sup>, as per Regulation, is to be used as guideline.
- Records of verification as well as corrective actions are to be recorded.

### 10. Requirements for the milk handling area

- The milk sales area must be equipped with a washbasin that is adequate in size and volume. A continuous supply of hot and cold running water must be available. This basin may not be used as a handwash basin.





- Dip tanks or suitable containers should be available for sanitising of loose (dismantled) equipment.
- A hand basin with hot and cold running water must be provided in the bulk tank or sales area. The hand basin should be supplied with antibacterial soap, sanitiser, disposable paper towels and refuse container.
- Hand sanitising is recommended before milk is being handled.

### 11. Personal hygiene and staff facilities

- Segregated eating/drinking areas should be provided for staff members. Staff should not wear protective clothing to these facilities and to toilet facilities so as to prevent contamination of milk products.
- Adequate toilet facilities must be provided as per regulation.
- Proper hand washing facilities, with adequate hot and/or cold running water and antibacterial soap, must be provided to facilitate personal hygiene in the toilet facilities.



- Staff members who work in direct contact with the product should wear appropriate protective clothing (clothing designed and cleaned to prevent contamination of the product) and head covers. In a milk shop/retail environment, it is recommended to wear an overcoat and hairnet.
- Provision should be made for the storage of protective clothing and the hygienic laundering of such protective clothing.
- No eating, drinking or smoking can be allowed in the facility.
- Jewelry should not be worn by staff members while working with the product.
- Daily hygiene checks are to be conducted and recorded.

### 12. Facility layout and structure

Guidelines for the construction of a facility to prevent contamination:

- Wall, ceiling and floor surfaces must be kept smooth, washable and impervious.
- Floor surfaces must be acid-resistant, properly sloped and drained.
- Flaking paint must be avoided. Surfaces should be free from open joints and rust.
- Light fittings must be provided with protection to prevent physical contamination. All breakable materials should be shielded.
- All windows and doors must be capable of closing securely to prevent dust contamination.



- The premises must have a waste water disposal system approved by the local authority, and all basins should be connected to a closed drainage system.

### 13. Pest control

- The premises (work and storage areas) are to be kept rodent-proof, by using the best available method.
- Effective means of preventing the access of flies and other insects must be implemented in the area where the milk is handled.
- The use and storage of pesticides should be controlled. (Approved pesticides must be used – no loose or granular bait, no aerosols and fly strips in areas where milk is handled.)
- The building should be adequately pest-proofed. Openings in walls, cracks and gaps beneath door and floor surfaces must be eliminated.
- Incoming goods should be well inspected to prevent pests from entering the premises.



### 14. Waste management

- An approved refuse area must be provided (separate, covered, free from odours and regularly emptied).
- Proper, dedicated refuse containers with bin liners must be provided in the milk tank area.



- All refuse containers must be clearly marked.
- The use of food containers as waste containers is not permissible, unless they are clearly marked: 'For waste purposes only'.
- Effluent generated as a result of milk handling must be disposed of into the municipal sewer, or otherwise approved by the local health authority.

### 15. Foreign object control

There must be effective control and management over:

- physical hazards, e.g. maintenance equipment, wood, plastic, glass, hard plastic, pests, hair, nails etc.
- chemical hazards, e.g. cleaning chemicals, pesticides etc.
- microbiological hazards, preventing cross-contamination.
- allergens, e.g. egg and nut products.

### 16. Staff and training

- It is a legal requirement that any person working on food premises should be adequately trained in hygiene and food safety.
- Records of training in the respective areas of food and facility hygiene, pest control and handling of chemicals must be kept.
- All staff working in the milk shop should be fit to handle food. An illness agreement and medical checklists (illness reports, cuts/wounds/grazes treated and covered by means of a glove) should be in place.
- A first aid kit should be readily available and stocked.







- A plaster and glove control procedure should be followed. When a plaster is issued, it must be recorded and a glove must be issued if the injury is on the hand. A check must be done at the end of a workday to verify whether the plaster is still intact. Record must be kept as proof.



## 17. Documentation

The following minimum records in terms of food safety must be maintained by the responsible person:

- Proof of a valid Certificate of Acceptability for their own facility as well as for facilities supplying pasteurised milk and other ingredients (input suppliers).
- Copies of valid Certificates of Acceptability for all raw milk suppliers as per regulation R961, and agreement details with all approved milk suppliers.
- Copies of valid TB/CA declarations for all raw milk suppliers.
- Records of milk deliveries.
- Records of test results of milk sold to the consumer.
- Records of corrective actions taken on non-conforming results.
- Temperature control records (temperature of milk at reception, bulk milk storage tanks or any cold storage area).
- Record of platform test (temperature, alizarol or clot-on-boiling test, antibiotics) performed during milk reception.
- Thermographic recordings if milk is pasteurised at the milk shop.
- Records of phosphatase test performed on pasteurised milk.
- Records of calibration and verification of thermometers.
- Master cleaning schedule and verification records of the cleaning programme.
- Material safety data sheets for all chemicals used.
- Daily hygiene checklist (personal as well as facility hygiene).
- Illness agreements and illness and plaster checklist.
- Hygiene and food safety training records for staff.





## DAIRY STANDARD AGENCY

### Checklist – Retail bulk milk

DOCUMENT NO.:	Retail bulk milk checklist	COMPILED BY:	
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#### RETAILER INFORMATION

Date of inspection:	
Name of milk shop owner/retailer/ producer-distributor:	
Postal address:	
Physical address:	
Contact person:	
Telephone:	
E-mail:	
Cell phone:	
Other telephone number	
Owner of bulk tank	
Certificate of Acceptability	<i>Certificate number:</i>
	<i>Date of issue:</i>
Sale of milk from bulk containers: (Categories)	<input type="checkbox"/> Raw milk sold directly to consumers for human consumption <input type="checkbox"/> Pasteurised milk sold directly to consumers for human consumption
	<input type="checkbox"/> Produce own milk <input type="checkbox"/> Other suppliers of milk <input type="checkbox"/> Both of the above
	<input type="checkbox"/> Suppliers deliver milk to shop/depot <input type="checkbox"/> Collect milk on farm/processing facility by milk shop/retailer
	<input type="checkbox"/> Milk pasteurised on farm <input type="checkbox"/> Milk pasteurised in shop <input type="checkbox"/> Milk pasteurised at depot <input type="checkbox"/> Milk pasteurised elsewhere (transport raw milk to pasteuriser and back) <input type="checkbox"/> Milk pasteurised and sold to other bulk retail milk shops
	<input type="checkbox"/> Milk tanker <input type="checkbox"/> Milk cans (Nestlé) <input type="checkbox"/> Plastic containers <input type="checkbox"/> Other
Processing other products	<input type="checkbox"/> Amazi <input type="checkbox"/> Yoghurt <input type="checkbox"/> Drinking yoghurt <input type="checkbox"/> Other
Documentation	<input type="checkbox"/> Regulation R961 – Regulations relating to milking sheds and the transport of milk
	<input type="checkbox"/> Regulation R1555 – Regulations relating to milk and dairy products
	<input type="checkbox"/> Regulations governing general hygiene requirements for food premises and the transport of food
	<input type="checkbox"/> <i>DSA Code of Practice for the Secondary Dairy Industry</i>
	<input type="checkbox"/> <i>DSA Code of Practice for Milk Producers</i>
	<input type="checkbox"/> SANS 10049 Food safety management – Requirements for prerequisite programmes
	<input type="checkbox"/> Other

**1. The milk supplier** (It is important that the milk shop/retailer controls the quality of milk received from the milk supplier)

Milk supplier	Farm name/ district	Certificate of acceptability for milking sheds R961	CA Declaration expiry date	TB Declaration expiry date	Somatic cell count records (only for raw milk sales directly to the consumer)

**2. Input suppliers** (It is important that the retailer controls the quality of milk received from the milk supplier)

Input suppliers	SABS 9001	SABS 1828	SABS 1853	Material safety data sheet	Cleaning / application instructions
Chemical supplier					
Pest control supplier					
Packaging supplier					

Milk received on the premises shall adhere to the minimum requirements as per regulation R961 and R1555.

Collection of milk on farm or at processing facility by milk shop/retailer (if applicable)	Yes	No	Record
Are visual inspections conducted on the bulk milk holding tank or bulk milk container?			
Do you take individual milk samples per collection as reference? (In case of more than one milk supplier)			
Do you ensure that the temperature of the milk is $\leq 5^{\circ}\text{C}$ before loading and keep record thereof?			
Do you conduct an alizarol test or clot-on-boiling test and ensure stability of the milk before it is loaded?			
<b>Transportation of milk to shop/retailer</b>			
Is the milk transported in an acceptable insulated container/vehicle/tanker?			
Are cleaning programmes/procedures in place for tankers or containers used to transport milk?			
Are at least monthly hygiene verification (surface swabs) records in place?			

Reception of milk at shop/retailer	Yes	No	Record
Is the area used by delivery vehicle paved and sloped?			
Do you ensure that the temperature of milk at reception is $\leq 7^{\circ}\text{C}$ and $\leq 4^{\circ}\text{C}$ during storage?			
Do you perform hygiene and condition inspections on vehicles/tankers or containers in which milk is delivered to the shop?			
Do you conduct an alizarol test or clot-on-boiling test and ensure stability of the milk if not done on the farm?			
Do you conduct antibiotic testing or obtain proof of antibiotic compliance per batch of milk received?			
Do you conduct a phosphatase test or obtain proof of effective pasteurisation (COA) if already pasteurised milk is received?			
Do you take corrective actions regarding any non-conformance detected and do you keep record thereof?			

<b>Pasteurisation in the store (Processing)</b>	<b>Yes</b>	<b>No</b>	<b>Record</b>
Is the pasteuriser used designed for the intended use?			
Is the equipment constructed of suitable material and the surfaces in contact with food smooth, resistant to corrosion, non-absorbent, and having no open joints or open ends?			
Is the balance tank fitted with a lid during pasteurisation?			
Are the correct time temperature combinations used during pasteurisation?			
Batch pasteurisation: 63 - 65°C for 30 minutes.			
Plate pasteurisation: 72 - 75°C for 15 - 20 seconds			
Do you keep thermographic recording (temperature checks) of pasteurisation (manual or logger)?			
Are pasteuriser thermometers calibrated annually?			
Do you conduct the phosphatase test to verify effectiveness of pasteurisation at least monthly or when there is any reason to believe that effective pasteurisation was compromised?			
Do you have an action plan in place to implement when there is reason to believe that the pasteurisation process was not effective?			
Is the milk cooled down without delay after pasteurisation to drop to $\leq 4^{\circ}\text{C}$ within a reasonable time?			
Do you use the right chemicals at the correct concentration, temperature and time parameters when cleaning the pasteuriser?			
<b>Bulk storage of product (Tank, area and equipment)</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Are the bulk retail tanks marked with a description of the product?			
Do you have a system in place to ensure that new milk is not mixed with old milk, and to ensure that the tank is properly cleaned before new milk is added? (Number of tanks (rotation and cleaning))			
Is the bulk tank fitted with thermometer accurately to $1^{\circ}\text{C}$ ? Are the thermometers calibrated/verified?			Number of tanks
Are the bulk tanks capable of cooling and maintaining milk at $<5^{\circ}\text{C}$ ?			
Is temperature taken daily, recorded and kept on file for one month?			
Is the automatic stirrer functioning properly and capable of stirring all milk adequately within five minutes?			
Are the batch cooling tanks, connection and taps designed for the intended purpose and made of stainless steel? (No use of ball valves)			
Does the tank feature a slope toward the outlet?			
Is the tank outlet screw-threaded and capped?			
Is the outlet pipe designed to ensure that milk is kept cold at all times and without dead ends?			
Is the tank installed not closer than 0,5m to the ceiling or wall for cleaning purposes?			
<b>Bottling/packing of milk</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Are only new bottles used for in-store bottling?			
Is the packaging stored above floor level and away from wall surfaces?			
Is the packaging stored in liners and sealed when not in use?			
Is the tank equipped with a tap to fill client containers? (No scooping out of tank)			
Does the design of the tap allow for adequate cleaning? (Easily cleanable)			
Are there procedures in place to address the frequent sanitation of the outlet tap as well as the sanitation of staff members' hands?			
Is only staff allowed to discharge milk from bulk tank containers?			

<b>Cold rooms and display fridges</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Are the surfaces smooth, impervious and washable?			
Are cooling units/fridges free from mould growth?			
Are inspection checks performed on temperature dials daily?			
<b>Cleaning and sanitation</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Is a dedicated and trained staff member in charge of the handling and issuing of cleaning chemicals?			
Are appropriate cleaning chemicals (not household) used? (Cleaning chemicals must be SANS 1828/SANS 1853/SABS certified and marked – registration or on label)			
<b>Storage of chemicals</b>			
Are cleaning chemicals stored separately away from food and food containers in a locked container or area?			
Is the chemical storage area properly ventilated?			
<b>Cleaning equipment</b>			
Is appropriate cleaning equipment used?			
Is cleaning equipment clearly marked and stored in a dedicated space when not in use?			
Is cleaning equipment used in good condition, industrial/food grade? (e.g. no woven cloths and scotch bright with loose threads/fibres, wood, steel wool)			
Are cloths cleaned and stored in sanitising agent when not in use?			
<b>Cleaning procedures</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Is a complete wash programme (equipment and areas) in place?			
Is a manual compiled by the chemical supplier available?			
Is the bulk tank emptied and cleaned at least once every 24 hours?			
Is the strength of dosages verified?			
Are controls temperature and time checked?			
Is COP cleaning verified with surface swabs? (100 bacteria per 1cm <sup>2</sup> )			
Is CIP cleaning verified with rinse water analyses?			
Are records of verification and those of corrective actions kept?			
<b>Milk handling area (washing up)</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Is the area equipped with a wash trough large enough for related cleaning and washing-up purposes?			
Is hot and cold water available?			
Are dip tanks available for sanitising of loose (dismantled) equipment?			
<b>Personal hygiene/staff facilities</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Is there a separate eating/drinking area for staff?			
Are there adequate toilet facilities with hand wash facilities?			
Is appropriate clean protective clothing and head gear worn by applicable staff? (Clothing designed and cleaned to prevent contamination)			
Is the wearing of protective clothing outside the milk handling area or in the toilet restricted?			
Is provision made for the storage of protective clothing?			
Is a dedicated hand wash facility available? (Hot and cold water, antibacterial soap, disposable paper towels, refuse container)			
<b>Facility layout and structure</b>			
<b>Premises</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Are wall, ceiling and floor surfaces smooth and washable?			
Are floor surfaces acid-resistant, properly sloped and drained?			
Are surfaces free from open joints and rust?			
Are lights fitted with protective covers? Are breakable materials shielded?			
Are windows and doors tightly fitted to prevent dust contamination?			
Are all basins connected to a closed drainage system?			



<b>Pest control</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Are all work and storage areas rodent-proof?			
Is access of flies prevented where milk is handled?			
Is the use and storage of pesticides controlled? (Approved pesticides used – no loose or granular bait, no aerosols used and fly strips where milk is handled)			
Is the building adequately pest-proof? (Are all opening, cracks and gaps eliminated?)			
Are all incoming goods inspected for pest infestation?			
<b>Waste management</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Is the waste area compliant with the applicable regulations? (Separate, covered, free from odours, regularly removed)			
Are dedicated refuse containers with bin liners used inside the facility?			
Are all refuse bins clearly marked?			
Is effluent from milk handling and washing of equipment disposed of into the municipal sewer?			
<b>Foreign object control</b>			
Are there effective control and management of possible physical hazards? (Maintenance parts, wood, plastic, glass and hard plastic, pests, hair and nails)			
Are there effective control and management of possible chemical hazards? (Cleaning chemicals and pesticides)			
Are there effective control and management of possible microbiological hazards? (Prevent cross-contamination)			
Are there effective control and management of possible allergens?			
<b>Staff/training</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Is the responsible person in charge of the premises committed to the provision and implementation of hygiene training for all staff working in the milk shop?			
Are the minimum training records available? (Food and facility hygiene, pest control and chemical handling)			
Are food handlers who work in the milk shop fit to handle food? (Is there an illness agreement in place? Is there a medical checklist? Are illness reports and cuts/wounds/grazes treated and covered by means of a glove?)			
Is a first aid kit readily available and stocked?			
Is a plaster and glove control procedure followed?			

<b>DOCUMENTATION</b>			
<b>Quality procedures/standard operating procedures</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Is there proof of a Certificate of Acceptability?			
Is there proof of a Certificate of Acceptability from all milk suppliers (R961)?			
Is there proof of TB/CA declarations in the case of raw milk suppliers?			
Is there proof of COAs from a pasteurised milk supplier?			
Is there proof of COAs from input suppliers (ingredient suppliers)?			
Are results available of tests performed on milk sold to the consumer? (Internally or externally)			
Is there proof of corrective actions taken on non-conforming results?			
Are temperature control records available? (Temperature of milk at reception, bulk milk storage tanks or any cold storage area)			
Is there a master cleaning schedule in place for all areas and equipment used?			
Are there cleaning verification records available? (Daily hygiene checklist)			
Is there proof of a supplier quality assurance programme in place and records thereof available? (Testing of incoming goods/visits/audits related to suppliers)			

## Staff hygiene

Date	Name	Hair covered with hairnet	Protective clothing (Worn & clean)
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

## Milk delivery test

Date	Temperature (<8°C)	Alizarol / Clot on boiling	Coliforms (<10cfu/ml) E.coli (Neg/0)
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

## Hygiene

Date	Milk reception	Milk storage	Milk processing
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

## Temperature monitoring (Bulk milk tanks and refrigeration units)

Date	Tank 1 (0,5 - 5°C)	Tank 2 (0,5 - 5°C)	Tank 3 (0,5 - 5°C)
	a.m./p.m	a.m./p.m	a.m./p.m
Monday	/	/	/
Tuesday	/	/	/
Wednesday	/	/	/
Thursday	/	/	/
Friday	/	/	/
Saturday	/	/	/
Sunday	/	/	/

## Checklist

Nails- short and clean	Jewellery controlled	Illness reported / Sick leave	Wounds and plaster check. Plaster/Gloves issued?

## Certificate of analyses /Internal analyses results

Total plate count (<50 000 cfu/ml)	Antibiotics (Negative)	Pasteurised milk phosphatase (Negative)	Other

## Checklist

Bottling area	Cold storage/Display	Other storage areas	Staff facilities

## Daily checks

Date	Chemicals issued	Pests sighted/Treated	Maintenance

## **Dairy Quality Club Members**



The quality chain of dairy products is extensive and requires appropriate control throughout the value chain to ensure that end product will comply with legal standards and satisfy the needs of the consumer. For this reason, it is imperative that input suppliers commit themselves to quality and /or food safety standards regarding their products used in the process of dairy production, processing, packing, storage and distribution.

The primary objective of the Dairy Standard Agency (DSA) is to promote the improvement of dairy quality and safety on a national level in the interest of the industry and the consumer. The DSA recognises the important role and contribution of input supplier companies, which service the dairy industry with high-quality products and integrity and is desirous to collaborate with such companies through the DSA Dairy Quality Club. The Dairy Quality Club is a forum of suppliers that support the initiatives of the DSA as an independent objective institution.

## **Purpose of the Dairy Quality Club**

To assist and encourage stakeholders in the dairy industry purchasing from input suppliers that maintain product integrity and high standards.

To enable the DSA to identify potential suppliers to the dairy industry who will enhance the quality and safety of the manufacturer's products.

To create a technical platform from which recommendations can be made regarding dairy technical information.

## Dairy Quality Club Directory

### 3M South Africa

3M Food Safety provides a large portfolio of proven and reliable solutions to meet your testing needs. Products are designed to help you maximize accuracy, consistency and efficiency and supported by worldwide sales and technical services second to none. - [www.3m.co.za](http://www.3m.co.za)



### bioMérieux

Global leader in *in vitro* diagnostics for more than 50 years, and in more than 150 countries through 42 subsidiaries and a large network of distributors, bioMérieux provides diagnostic solutions that improve patient health and ensure consumer safety. - [www.biomerieux.com](http://www.biomerieux.com)



### Dairypack

Dairypack is your one-stop shop for dairy packaging with a full range of lightweight dairy containers for fresh and long life milk, drinking yoghurt, dairy juice or traditional maas and sorghum beer. - [www.dairypack.co.za](http://www.dairypack.co.za)



### Deltamune

The Deltamune Dairy laboratory offers a wide range of tests at affordable prices. A biotechnology company focusing on veterinary and public health solutions, mainly for the production animal sectors. - [www.deltamune.co.za](http://www.deltamune.co.za)



### Lake Foods

Lake Foods is the exclusive representative for leading international manufacturers and suppliers of speciality ingredients and commodities, offering products and services into the dairy, beverage, wine, meat, bakery, health and nutrition industries. - [www.lake.co.za](http://www.lake.co.za)



### Mérieux NutriSciences

As one of the longest-established commercial food testing laboratories of its kind in South Africa, Mérieux NutriSciences provides a comprehensive product-safety service to the food and beverage, cosmetics, hospitality and related industries throughout the SADC region. - [www.merieuxnutrisciences.com/za](http://www.merieuxnutrisciences.com/za)



### Diversey

Diversey's purpose is to protect and care for people every day. Diversey has been, and always will be, a pioneer and facilitator for life. We constantly seek to deliver revolutionary cleaning and hygiene technologies that provide total confidence to customers across all our global sectors. These include: facility management, health care, hospitality, retail and food service; in addition to food and beverage. Diversey is a provider of cleaning, sanitation and maintenance products, systems and services that efficiently integrate chemicals, machines and sustainability programs. Everything we do is based on the implicit belief that cleaning and hygiene are life essentials and that what we undertake constitutes a vital service. - [www.diversey.com/diversey-food-beverage/agriculture/diversey-hygiene-products/deosan-agricultural-hygiene-products](http://www.diversey.com/diversey-food-beverage/agriculture/diversey-hygiene-products/deosan-agricultural-hygiene-products)



### Tetra Pak

Tetra Pak is the world's leading food processing and packaging solutions company. We provide safe, innovative and environmentally sound products that each day meet the needs of millions of people. - [www.tetrapak.com/za](http://www.tetrapak.com/za)







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