TEST REPORT TOETSVERSLAG

SABS

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U verw/Your ref dd 2000-01-14

Health & Hygiene (Pty) Ltd
Attention: Mr John Temperley
P.O.Box 347
SUNNINGHILL
2157

Ons verw/Our ref. 17/37/9

Navrae/Enquiries 428-6172

Datum/Date 2000-02-01

5447/1066950/T881

F10 Disinfectant Teat Spray with Glycerine:
The F10 actives in its working solution are equal to 1:250 concentration of F10SC.

F10 TEAT SPRAY

1. DESCRIPTION OF SAMPLE

One sample labelled "F10 Teat Spray batch number 991215" was received on 14 January 2000 and tested on 19 January 2000.

2. TEST REQUESTED

To determine the bactericidal efficacy of the teat spray sample at a dilution of 1/25.

3. METHOD OF TEST

The sample was tested in accordance with the method described in "Guide on the testing of milking salves, teat dips and udder disinfectants to be registered as stock remedies for the prevention and control of mastitis and the improvement of udder health" by Giesecke, WH and LW van den Heever, veterinary Research Institute, Onderstepoort (1971).

4.RESULTS....

SOUTH AFRICAN BUREAU OF STANDARDS SUID-AFRIKAANSE BURO VIR STANDAARDE

TEST REPORT No. 5447/1066950/T881 Page / Bladsy 2
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4. RESULTS

Bactericidal efficacy F10 Teat Spray B/N 991215

Sample Description	Dilution	Exposure time	Percentage kill of:	
			P.aeruginosa	*S.aureus*
F10 Teat Spray B/N 991215 T881	1/25	0,5 min 1,0 min 2,5 min	99,9 99,9 99,9	99,9 99,9 99,9

Remark:

When tested in accordance with the method, each of the relevant dilutions of the product shall, within 2,5 minutes, kill at least 99,9% of the organisms indicated.

The sample complies.

R van Rensburg
MICROBIOLOGY DEPARTMENT

Fax number: (011) 803 4022

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F10 Disinfectant Udder Wash:
The F10 actives in its working solution are equal to 1:250 concentration of F10SC.

17 January 1999

Health and Hygiene (Pty) Ltd
P O Box 347
SUNNINGHILL
2157

ATT: JOHN TEMPERLEY

Dear John

As requested we tested your teat wash with our inhibitory substance screening test (B R Test). This test is a microbiological inhibition test using Bacillus stearothermophilus as the test organism (chosen for its sensitivity to penicillin and a number of other antibiotics) and brilliant black as the redox indicator.

The concentrated teat wash supplied was diluted 1:25 to give the working solution. This working solution was diluted with inhibitor-free milk and subject to the B R Test. Following the incubation period of three hours at 63°C only the 1:10 dilution gave a positive result. Dilutions of 1:20 upwards were negative to test.

It must be stressed that this result only reflects the organism's relative insensitivity to the product and does not necessarily imply that organisms used in other test mechanisms or dairy product manufacture will have similar sensitivities.

Yours sincerely

GORDON JACK

Clover S.A.

F10 Disinfectant Udder Wash
The F10 actives in its working solution are equal to 1:250 concentration of F10SC.

28 June 2000

Health and Hygiene (Pty) Ltd
P O Box 347
SUNNINGHILL
2157

ATT: JOHN TEMPERLEY

Dear John

Following your request I hereby elaborate on the tests carried out by us on your Teat Spray and F10 concentrate on 17 January 2000 and 13 April respectively (refer to reports dated same).

In both instances the prescribed test procedure was followed (copy attached).

In the case of the Teat Spray, as indicated in the report, the sample was first diluted with water 1:25 to give the working solution. This working solution was then diluted with inhibitor-free milk starting with a 1:10 dilution and ending with a 1:320 dilution. This was subject to the B R Test and following the incubation period was visually assessed as described in the procedure. As noted only the 1:10 dilution gave a positive result i.e. retained the initial blue-violet colour.

In the case of the F10 concentrate the sample was first diluted 1:250 with water to give the working solution. This was then diluted with inhibitor-free milk starting once again with a 1:10 dilution and ending with a 1:320 dilution. As described when subject to the BR Test and visually evaluated at the end of the incubation period only the 1:10 dilution was positive, the 1:20 and higher dilutions giving a negative result.

Regards

G W JACK
(QUALITY CONTROLLER)

Clover S.A.	CLOVER S.A. LIMITED	COPY NO:
		PAGE: 1 OF 2
	BRANCH: HEILBRON HEAD OFFICE	DOCUMENT NO: LM 4.31.1
	DOCUMENT: LABORATORY MANUAL	REVISION NO: 0
SUBJECT: INHIBITORY SUBSTANCES, BR TEST		EFFECTIVE DATE: 1999-01-01
CONTROLLING OFFICIAL: HEAD: LABORATORY SERVICES		SIGNATURE :
APPROVING OFFICIAL: HEAD: LABORATORY SERVICES		SIGNATURE :

1. PRINCIPLE

In the BR-test *Bacillus stearothermophilus var. calidolactis* is used as the test organism and brilliant black as the indicator. Any antibiotic or other inhibitory substances in the milk will inhibit the metabolic processes of the test organism during incubation. This results in the preservation of the blue-violet colour of the BR test system in those samples containing antibiotic residues. With samples free of inhibitory substances, however, the blue-violet oxidized form is converted to the yellow reduced form.

2. EQUIPMENT AND REAGENTS

2.1 BR test plates "12 x 8", consisting of 12 microwell strips for 8 samples each (Note 4.1).
2.2 Micropipette, 100 µl, with disposable tips.
2.3 Rubber roller.
2.4 Water bath, accurately controlled at 62 - 64°C (Note 4.2).
2.5 Antibiotic-free pasteurized milk or reconstituted antibiotic-free milk powder (10% in distilled water, Note 4.1).

3. PROCEDURE

3.1 Remove the adhesive tape from the test plate or strip (save adhesive tape for re-use).
3.2 Pipette 0,1 ml of antibiotic-free milk (2.5) into the first well as a blank control.
3.3 Pipette 0,1 ml of each milk sample into the remaining wells (Note 4.3).
3.4 Reseal the test plate or strip with the above-mentioned tape (3.1) by pressing it on tightly with the rubber roller (Note 4.4).
3.5 Incubate plate or strip in a water bath at 62 - 64°C. During incubation the test plate should float on the surface of the water bath with the adhesive tape upwards.
3.6 After incubation for 2½ h, remove the plate or strip from the water bath.
3.7 If the colour of the blank control has changed to yellow-brown, proceed with 3.8. Otherwise, place the plate or strip(s) in the water bath for a further 15 min. or longer until the colour of the blank control changes to yellow-brown (Note 4.5).
3.8 Observe the colour of the solid medium (Note 4.6):
Yellow-brown = negative
Blue-violet = positive

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4. NOTES

4.1 Test plates and antibiotic-free milk powder can be obtained from the Laboratory Services Department at Heilbron Head Office. Test plates must be stored in their aluminium foil cover at 4 - 6°C with the adhesive tape side lying underneath (see instructions on cover).

4.2 The use of an incubator is possible, but not recommended because of uneven heat distribution and poor heat transfer. If an incubator is used, the temperature of the spot in the incubator where the plates are to be placed should be checked accurately beforehand. The test plates should not be stacked during incubation!

4.3 It is not necessary to use a separate disposable tip for each sample, but it is recommended to rinse the tip once with each sample to be tested.

4.4 Separate adhesive tape strips are supplied with the test plates and can also be used. However, they do not stick as well and must be pressed on thoroughly with the rubber roller to prevent water leaking into the wells.

4.5 The total incubation time should not exceed 3 h. If the blank control does not change colour within 3 h and the temperature of the water bath is exactly 63 ± 1°C (check with calibrated thermometer at the position of the microwell strips), the test material is probably outdated and should be discarded.

4.6 If the colour change is incomplete, the result is doubtful and the test should be repeated. If the result is still doubtful, it must be considered as negative.

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LNR-DIEREVERBETERINGSINSTITUUT

THIS TEST HAS BEEN CARRIED OUT USING A FIO "SUPER CONCENTRATE" SAMPLE - UDDER WASH

Enquiries / Navrae: M van der Merwe

Ref / Verw:

Tel: 012 672 9268
Tel: 083 447 2403

F10 Disinfectant Teat Spray with Glycerine:
The F10 actives in its working solution are equal to 1:250 concentration of F10SC.

Skin Sensitivity Trial

Conducted on behalf of: Health and Hygiene

For: Drug Registration Purposes

By: Dr M van der Merwe BVSc &
Me J E Venter
Animal Improvement Institute
Irene

To whom it may concern

Dear Sir

The trial to test the effect of a pre-milking disinfectant (F 10 Super Concentrate) and a post-milking disinfectant (F 10 disinfectant teat spray with glycerin) on the sensitivity of the skin on teats of dairy cows was conducted for a period of fourteen days (05/07/2000 - 18/07/2000).

Forty cows were randomly selected from the high producer group of cows at the ARC- Animal Nutrition and Products Institute and divided into a treatment and a control group. The treatment group was treated with the abovementioned products before and after milking while the control group received the normal treatment.

After entering the parlour the teats were washed and dried after which a milk sample was taken. The pre-milking antiseptic was sprayed onto all four teats after which the clusters were put on. The control group was not treated by a pre-milking antiseptic. After the clusters were removed cows in the treatment group were sprayed with the post milking antiseptic. The control group were sprayed with Teat Guard Concentrate (Ecolab®).

The concentration of F 10 used as a pre-milking teat disinfectant was 1:250 while the concentration of the F 10 teat disinfectant was 1:25.

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Enquiries / Navrae:

Ref / Verw:

Teats were checked twice a day by either a veterinarian or by a veterinary technologist to detect signs of sensitivity, before the disinfectant was applied. Teats were scored from naught to four with naught being no reaction and four being a severe reaction. None of the cows in these groups showed any negative reaction to the chemicals used and all the cows in both groups received scores of naught.

In my opinion both disinfectants are safe to use at the concentrations mentioned, as far as skin sensitivity is concerned.

Sincerely

P. van Vuuren

DIRECTOR: ANIMAL IMPROVEMENT INSTITUTE

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F10 Disinfectant Teat Spray with Glycerine and Lanolin:
The F10 actives in its working solution are equal to 1:250 concentration of F10SC.

MICROBIOLOGY DEPARTMENT 7218

U verw/Your ref: dd 2001-07-09

Ons verw/Our ref: 17/37/9

Navrae/Enquiries: 428-6087

Datum/Date: 2001-07-19

1733791/00-1971/U12520-1

Health and Hygiene (Pty) Ltd
Attention: Mr.J.Temperley
P.O.Box 347
SUNNINGHILL
2157

F10 TEAT SPRAY WITH GLYCERINE AND LANOLIN

1. DESCRIPTION OF SAMPLES

Two samples labelled "F10 Teat Spray with Glycerine and Lanolin batch no's 030707 and 030708" were received on 2001-07-09 and tested on 2001-07-11.

2. TESTS REQUESTED

To determine the bactericidal efficacy of the samples subject to the following conditions:

a)	Dilutions of samples:	As Is
b)	Diluent:	Skimmed milk.
c)	Temperature of test:	37 °C ±2°C
d)	Test organisms:	*Pseudomonas aeruginosa* SATCC Pse 16 *Staphylococcus aureus* SATCC Sta 53
e)	Test organism load:	Approximately 10^8 organisms per 10 mℓ of test solution
f)	Exposure time:	0,5 min, 1,0 min and 2,5 min
g)	Counting medium:	Nutrient Agar

3. METHOD OF TEST

The samples were tested in accordance with the method described in "Guide on the testing of milking salves, teat dips and udder disinfectants to be registered as stock remedies for the prevention and control of mastitis and the improvement of udder health" by Giesecke, WH and LW van den Heever, veterinary Research Institute, Onderstepoort (1971).

4. RESULTS

Bactericidal efficacy

Sample	Dilution	Contact time	Percentage kill of	
			P.aeruginosa	*S.aureus*
F10 Teat Spray with Glycerine and Lanolin Batch 030707 U12520	As Is	0,5 min	99,9	99,9
		1,0 min	99,9	99,9
		2,5 min	99,9	99,9
F10 Teat Spray with Lanolin and Glycerine Batch 030708 U12521	As Is	0,5 min	99,9	99,9
		1,0 min	99,9	99,9
		2,5 min	99,9	99,9

REMARKS

When tested in accordance with the method, each of the relevant dilutions of the product shall, within 0,5 min kill at least 99,0%, 1,0 min kill at least 99,5% and at 2.5 min. kill at least 99.9% of the organisms indicated.

The samples comply.

Fax no. (011) 803-1022

R. van Rensburg
MICROBIOLOGY DEPARTMENT

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ARC-ANIMAL NUTRITION AND ANIMAL PRODUCTS INSTITUTE

LNR-DIEREVOEDING EN DIEREPRODUKTE-INSTITUUT

ARC • LNR

Enquiries / Navrae
Mrs N A Prinsloo

Ref no. / Verw no.:
(011) 474 1668

30 September 2003

HEALTH & HIGIENE

ATTENTION: JOHN TEMPERLEY

RESULTS OF STARTER CULTURE ACTIVITY TEST ON UDDER WASH B/N 040810

A starter culture activity test was performed to determine an udder wash, B/N 040810 would influence negatively on the manufacturing of dairy products.

YC180, a commercial yoghurt culture containing ***Streptococcus thermophilus*** and ***Lactobacillus bulgaricus*** and CHN22, a commercial starter used for the manufacturing of Gouda cheese, cottage cheese and maas were used. This starter culture contains ***Lactococcus lactis*** subsp. ***lactis***, ***Lc. lactis*** subsp ***.lacits*** biovar ***diacetilactis*** and ***Leuconostoc mesenteroides***. YC180 is usually used for this test because it is sensitive to inhibitory substances.

For the starter culture activity test 2% starter culture is added to sterilised milk, usually reconstituted milk powder. The inoculated milk is then incubated at the desired temperature. In this instance the requested dilutions of the udder wash was added to the inoculated milk before it was incubated.

The following dilutions were used:

REQUESTED DILUTIONS	WORKING DILUTIONS	INHIBITION*	
		YC180	CHN22
1:27 000 000	1:27 000 000	XXX	XXX
1:13 500 000	1: 14 000 000	XXX	XXX
1: 6 750 000	1: 7 000 000	XXX	XXX
1: 3 875 000	1: 4 000 000	XXX	XXX
1: 1 987 500	1: 2 000 000	XXX	XXX
1: 1 000 000	1: 1 000 000	XXX	XXX
1: 500 000	1: 500 000	XXX	XXX
1: 250 000	1: 250 000	XXX	XXX
1: 125 000	1: 125 000	XXX	XXX

(* XXX: No inhibition; XX: Very little inhibition; X: Poor texture due to partial inhibition; 0: Total inhibition)

None of the concentrations used inhibited the activity of the two starter cultures used. This implies that the udder wash, used in the concentrations as indicated, will not inhibit the growth of the starter cultures used.

Please contact me if you have any questions.

Kind regards,

Nellie Prinsloo

NOTE:

* 1:27,000,000 is the concentration ratio of the actives in F10 Udder Wash in 4ml of the working solution in 25 litres of milk.

* 1:125,000 is the concentration ratio of the actives in F10 Udder Wash in 1024ml of the working solution in 25 litres of milk.