

CR 83-99

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STATE OF WISCONSIN)
) ss.
DEPARTMENT OF AGRICULTURE,)
TRADE & CONSUMER PROTECTION)

OCT 12 1983
12:30pm
Revisor of Statutes
Bureau

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Norman E. Kirschbaum, Administrator, Food Division, State of Wisconsin Department of Agriculture, Trade and Consumer Protection, and custodian of the official records of said Division, do hereby certify that the annexed order amending rules relating to the amount of potassium dichromate allowable for use as a preservative in storing composite milk samples, section Ag 107.03(3)(b), Wis. Adm. Code, was duly approved and adopted by the Department on October 11, 1983.

I further certify that said copy has been compared by me with the original on file in the Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Department offices in the city of Madison, this 11th day of October, 1983.

Norman E. Kirschbaum
Norman E. Kirschbaum, Administrator
Food Division

12-1-83

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OCT 12 1983

ORDER OF THE
STATE OF WISCONSIN

Revisor of Statutes
Bureau

DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

ADOPTING, AMENDING OR REPEALING RULES

- 1 To amend Ag 107.03(3)(b) and Note following par. (b), relating
2 to the amount of potassium dichromate allowable for use as a
3 preservative in storing composite milk samples.

Analysis Prepared by the Department of Agriculture,
Trade and Consumer Protection

A composite sample of each dairy farm's milk is obtained by dairy plants for purposes of conducting a milkfat test. Each composite consists of a representative sample from every delivery of milk by a producer to a dairy plant within a given pay period. A chemical preservative is used during buildup of the composite sample over a 15 day period to retard bacterial growth.

In September, 1982, section Ag 107.03(3)(b) was amended to prohibit the use of mercuric chloride as a preservative after January 1, 1983. The amendment also allowed the use of potassium dichromate to preserve composite milk samples and set forth a quantitative range for such use. The amounts specified in the current rule are excessive, which causes charring of the sample due to an oxidation reaction between the excess potassium dichromate and sulfuric acid, which is used as a reagent in conducting the milkfat test. An additional problem encountered when using the amount currently specified in the rule is a clouding of the fat column formed in conducting the milkfat test. This is thought to be caused by the presence of talc used as an inert binding agent in manufacture of the potassium dichromate preservative tablets.

These adverse chemical and physical changes which occur in testing a composite milk sample preserved with the amount of potassium dichromate specified in the current rule interfere with conducting the milkfat test. Experimentation by the industry and the department's general laboratory has shown the amount of potassium dichromate added to a composite milk sample can be reduced to a range of 100 to 190 milligrams and still satisfactorily preserve the sample for a 15 day test period. The reduced amount of preservative enables a dairy plant to make an accurate determination of the milkfat in a producer's composite sample for purposes of calculating payment to a producer for milk shipped to a dairy plant.

1 Pursuant to authority vested in the State of Wisconsin Depart-
2 ment of Agriculture, Trade and Consumer Protection by sections
3 93.07(1), 97.24(4) and 98.13(5), Wis. Stats., the State of Wisconsin
4 Department of Agriculture, Trade and Consumer Protection hereby
5 amends rules interpreting section 98.13, Wis. Stats., as follows:

6 SECTION 1. Ag 107.03(3)(b) is amended to read:

7 Ag 107.03(3)(b) No composite sample shall be kept out of
8 refrigeration at the dairy plant for a longer time than necessary to
9 continue building the composite sample from fresh milk samples of a
10 producer, or the completion of weighing and sampling operations for
11 each truck load delivery of can milk. Transporting composite sam-
12 ples from the dairy plant or laboratory to a dairy farm is prohib-
13 ited. Each dairy plant or laboratory shall use a ~~preservative~~
14 potassium dichromate or another chemical approved by the department
15 ~~in building as a preservative for~~ each composite sample. The
16 ~~preservative may consist of a bichloride of mercury or corrosive~~
17 ~~sublimate tablet which shall weigh not more than one gram and~~
18 ~~contain not less than 2.5 nor more than 3.5 grains of bichloride of~~
19 ~~mercury. Potassium dichromate or other chemical preservatives may~~
20 ~~be used to preserve composite samples upon written approval from the~~
21 ~~department. Not~~ When potassium dichromate is used to preserve com-
22 posite samples, not less than 14 grains 100 milligrams (1.5 grains)
23 nor more than 20 grains 190 milligrams (2.9 grains) of potassium
24 dichromate may be used as a preservative in building each composite
25 samples sample, to obtain a concentration of 20 milligrams
26 (0.3 grain) per 30 milliliters (one fluid ounce) of milk in the
27 completed sample.

1 SECTION 2. The Note following Ag 107.03(3)(b) is amended to
2 read:

3 Note: Potassium dichromate for use as a milk sample preserva-
4 tive is commonly available in tablet form containing 40 milligrams
5 of active ingredient per tablet. The use of these tablets at the
6 rate of one tablet per 2 fluid ounces of milk in a completed compos-
7 ite sample is equivalent to the concentration required in par. (b).
8 S. Ag 29.05(1)(c) contains labeling requirements and limitations on
9 disposal of milk samples preserved with potassium dichromate.

10 After January 1, 1983, the use of mercuric chloride as a
11 preservative will be for composite milk samples is prohibited.

12 The rule amendment contained in this order shall take effect on
13 the first day of the month following publication in the Wisconsin
14 Administrative Register, as provided in s. 227.026(1)(intro),
15 Stats.

16 Dated: October 11, 1983.

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19 STATE OF WISCONSIN
20 DEPARTMENT OF AGRICULTURE,
21 TRADE AND CONSUMER PROTECTION

22
23 By Norman E. Kirschbaum
24 Norman E. Kirschbaum,
25 Administrator
26 Food Division

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