

Opinion No. 18

**ICE CREAM — MILK SHAKES —
PASTEURIZATION, Ice Cream —
DAIRY DIVISION**

Held: Mixes of the type of the Kraft Powdered Basis Mix do not meet the pasteurization requirements unless it is again pasteurized after the addition of the water. Milk and milk products at a temperature of 32 degrees Fahrenheit or lower, must contain at least ten per centum of butterfat, but products made of ices or sherbets at a temperature at or below 32 degrees Fahrenheit need not contain the ten per centum butterfat requirement, though they still must conform to the acidity requirements.

March 31, 1947

Mr. Albert H. Kruse, Commissioner
Department of Agriculture,
Labor and Industry
State Capitol
Helena, Montana

Attention: Mr. Thomas McMaster
Inspector in Charge,
Dairy Division

Dear Mr. Kruse:

In two separate letters submitted to this office you have requested opinions on the following questions:

1. Does the finished ice cream product made from Kraft Powdered Ba-

sic Mix comply with the pasteurization provisions of Chapter 68 of the Session Laws of 1937?

2. What type products require the ten per cent butterfat content noted in Section 1 of Chapter 68, Laws of 1937?

To understand the first question it is necessary to look rather hastily at the history of ice cream.

In the beginning of the manufacture of ice cream the principal ingredients were milk and cream in their original state and flavoring, which when frozen became ice cream. At that time it was felt necessary that those principal ingredients be safeguarded for the public protection. As a result the present Section 2620.51, Revised Codes of Montana, 1935, was enacted in 1929. This provides as follows:

"All milk or cream used in the manufacture of ice cream made for sale within the state of Montana shall be pasteurized before being made into such ice cream and all butter used in the manufacture of ice cream made for sale, shall be made from pasteurized materials. The methods of pasteurization employed shall be one of the two methods required in this act.

"It is provided, however, that ice cream may be made without pasteurization and sold, when all milk or cream used in its manufacture is from cows that have been tuberculin tested within one year preceding the date of such manufacture and found to be non-reacting, and when all other requirements of the laws of the state of Montana have been complied with. That in each and all places within the state of Montana where ice cream is sold, and the provisions of this act have been complied with, a notice issued under the authority of the division of farming and dairying of the state department of agriculture, labor and industry and counter-signed by the chief of said division of farming and dairying, shall be posted in a conspicuous place, informing the public that the ice cream sold or offered for sale there is made from pasteurized materials, or from milk or cream from tuberculin tested and

non-reacting cows as the case may be."

At that time the manufacturer either sold the finished product to the retailer or the retailer made it himself. Today the process has been somewhat changed so that in most instances the ice cream comes to the retailer in a mix form in order to increase production, to decrease manufacturing costs, to speed up the process, and to prevent waste resulting from melting. When the retailer gets this mix he only has to freeze it and add flavor and he has the finished product. As a result, Chapter 68, Laws of 1937, provides for the following so that the mix itself will be pasteurized, thus preventing any harmful results to the public. That chapter provides in section 1 as follows:

"Ice cream is a frozen product made with pure, sweet milk, cream, skim milk, evaporated or condensed milk, evaporated or condensed skim milk, dry milk, dry skim milk, pure milk fat, or wholesome sweet butter, or any combination of any such products, with or without sweetening, clean wholesome eggs or egg products, and with or without the use of harmless flavoring and coloring. Ice cream must contain not less than ten per centum of milk fat, and not less than thirty-three per centum total solids, and may or may not contain pure and harmless edible stabilizer. Ice cream may contain not to exceed one per centum gelatine. No frozen milk or milk product shall be manufactured or sold unless it contains at least ten per centum butterfat, excepting sherbets and ices and other exceptions shown in this same section. **All ice cream must be manufactured from pasteurized ice cream mix.**" (Emphasis mine.)

Further, ice cream mix is defined by that act as follows:

"Ice cream mix is a pasteurized, unfrozen product used in the manufacture of ice cream, and must comply with all the requirements for ice cream as set forth herein."

While it is true that the Kraft product mix is a pasteurized unfrozen product used in the manufacture of

ice cream, it was not within the contemplation of this statute to include such a mix.

Therefore, it is necessary that other factors be taken into consideration in determining whether or not the Kraft product complies with the regulations of the statute.

In all cases of this type the custom of usage plays an important part. In the ordinary understanding of the industry "ice cream mix" is accepted as that semi-liquid formation which requires only the addition of flavoring and freezing to become that "frozen product" referred to by definition in the section set out above.

The Kraft Powdered Basic Mix requires the adding of water, sugar and flavoring before it assumes this final form, while the ordinary ice cream mix requires only the freezing. The addition of water opens the door to increased bacterial content insofar as the finished product is made from water which has never been subject to pasteurization.

It would seem to appear that the purpose of pasteurization was to give to the finished product as healthful a condition as was possible. The section above notes the addition of sweetening or flavoring and it can fairly be construed that such incidental ingredient was not expected to require pasteurization, especially since a nominal amount is added. But it would defeat the purpose of pasteurization if this Kraft mix product would be allowed to be used unless the finished product was also pasteurized since the water here would be an essential ingredient.

It further was not within the contemplation of the legislature that such a substance as the Kraft product was to be considered the same as the ice cream mix noted in the statute, merely by pasteurizing it and giving it the name "mix."

Mixes of the type of the Kraft Powdered Basic Mix do not meet the pasteurization requirements unless it is again pasteurized after the addition of the water.

The answer to your second question centers around the following sentence of Section 1 of Chapter 68, Laws of 1937:

"No frozen milk or milk product shall be manufactured or sold unless it contains at least ten per centum butterfat, excepting sherbet and ices and other exceptions shown in this section."

To understand this provision it is necessary to define the word frozen: "To freeze" has been held to mean anything from "congeal" to "solidify" (Century Dictionary and Encyclopedia) but the act of freezing has been defined as:

" . . . such as to freeze; specifically, at or below the temperature of 32° F. which is called the freezing point, because water freezes at that temperature."

Volume 4, Century Dictionary and Encyclopedia p. 2371.

Further, a "freezer" has been defined as:

" . . . a place for the preservation of meat or poultry, where the temperature is kept below freezing — from zero to 32 degrees." (Emphasis mine.) Allen v. Somers, 47 A. 653, 654, 73 Conn. 355.

Ergo, any frozen milk or frozen milk product is that which is manufactured at a temperature of 32 degrees Fahrenheit or lower. Any such product must contain "at least ten per centum butterfat."

However, if such product is manufactured from ices or sherbets, including milk sherbet (which is also specifically excepted in Chapter 68, Laws of 1937), it need not meet the requirements of ten per centum butterfat. But this type product must conform to the requirements of thirty-five hundredths per centum of acid as noted in Section 1 of Chapter 68, Laws of 1937, as follows:

"Milk sherbet means the pure, clean, frozen product made from milk products, water and sugar, with harmless fruit or fruit juice flavoring and with or without harmless coloring, which must contain not less than 0.35 of one per centum of acid, as determined by titrating with standard alkali and expressed as lactic acid, and with or without added stabilizer composed of whole-

some edible material. It must contain not less than four per centum by weight of solids.

Ice or ice sherbet means the pure, clean, frozen product made from water and sugar with harmless fruit or fruit juice flavoring, and with or without harmless coloring, and must not contain less than 0.35 of one per centum of acid, as determined by titrating with standard alkali and expressed as lactic acid, and with or without added stabilizer composed of wholesome edible material. It must contain no milk solids."

It is therefore my opinion:

1. Mixes of the type of the Kraft Powdered Basic Mix do not meet the pasteurization requirements unless it is again pasteurized after the addition of the water.

2. Milk and milk products manufactured at a temperature of 32 degrees Fahrenheit or lower, must contain at least ten per centum butterfat, but products made of ices or sherbets at a temperature at or below 32 degrees Fahrenheit need not contain the ten per centum butterfat requirement, though they still must conform to the acidity requirements.

Sincerely yours,
R. V. BOTTOMLY,
Attorney General.