

What are modified milk ingredients?

“Modified milk ingredients” is an umbrella term for a variety of milk ingredients such as casein or whey. Milk is the building block for dairy products, such as yogurt, ice cream, butter and cheese. Since milk may undergo changes during the processing of these foods, with some of its components concentrated or removed, it cannot be called milk on the label, therefore the term “modified milk ingredients” is used.

Under current law, only a limited amount of fluid milk and cream can be imported tariff-free into Canada. "Modified milk ingredients" are a different story. That name can mean just about any product that was initially part of milk, especially including the following:

- skim milk powder
- milk protein concentrates
- milk protein isolates
- casein
- caseinates
- whey protein concentrates

It's possible to make products such as cheese and ice cream using only modified milk ingredients and no fluid milk or cream at all.

If you think ice cream is necessarily made from cream, or even milk, you'd be wrong. Indeed *some* ice cream is made from those ingredients, but most is not. Most commercial ice cream on the market today is composed primarily of “**modified milk ingredients**,” which can mean any of a number of different factory goops that are derived from milk.

If you're lucky, the modified milk ingredient in your ice cream is simply powdered milk. More likely it's [casein](#) (factory-extracted milk proteins), or whey proteins, or even a [butter oil](#) compound. The butter-oil compound, according to a recent [CBC Marketplace report](#), is 49% butter-oil and 51% sugar.

Modified milk ingredients, which are usually made from by-products of other dairy product manufacturing, are cheaper.

The butter-oil compound (which you will never see listed as such on an ingredients list) is particularly cheaper because it contains 51% sugar; since it is more non-dairy than dairy, it can be imported without having to pay any of the tariffs that are applied to real dairy products. In other words, it is cheaper to use imported butter oil compound than to use fresh milk from the dairy farm just down the road. Most of the butter-oil compound used in Canadian-made ice cream comes from the U.K. or New Zealand.

This is a travesty. In a time where we are making more of an effort to eat and shop locally, this kind of local “Canadian” shopping carries a huge carbon footprint from the international shipping of the ingredients in these dairy products. Secondly, you are definitely not consuming a quality product, or even a real food, because ice creams require the addition of factory goop in order to make it resemble the texture of real ice cream.

Check the labels. Ice cream composed primarily of “modified milk ingredients” is also full of various gums (guar, cellulose, carrageenan, etc.) which are used to stabilize the product and to give it a creamy feel. This applies to other kinds of dairy as well, such as some cheaper brands of cheese.

I don’t know what the short and long term health implications of all those compounds and gums are, however, the term “modified” is a clue. To me this means that the processing procedure has changed the structure and chemistry of the actual ingredients that were once real food. If the food has changed, then the nutritional benefits of the food have changed. And obviously, if something is processed it is not real food and has no nutritional value. If you choose to eat real food versus the processed foods, many types of dairy should be scratched from your shopping list. Remember, processed equals chemical additives that are NOT real food. Make a conscious choice to eliminate processed foods from your diet and leave the modified stuff on your grocer’s shelf.