

THE LOW AND NO ALCOHOL MARKET

The global market for low to no alcohol beverages is consistently growing, while alcoholic beverage sales are gradually declining. For the many businesses who traditionally manufacture alcoholic products, offering lower alcohol or non-alcoholic options makes good business sense and aligns with the trend of Canadians seeking to reduce their alcohol consumption.

For those businesses there is an important difference in food safety, when the alcohol content is lower or removed. This is because pathogens and other bacteria are hindered by alcohol. Typically, 10% Alcohol By Volume (ABV) is used as the “cut off” level, but even levels up to 5% will provide some layer of protection. For products like beer, boiling the beer wort and the addition of hops contribute to food safety hurdles. Moving into low and no alcohol products presents additional food safety challenges compared to alcoholic products.

WHAT DEFINES LOW AND NO ALCOHOL?

There are different federal designations for different alcoholic beverages. “Lite” is 9% or less for wine, 4% or less for cider and 25% or less for spirits according to Food and Drug Regulations (FDR). Beer has two categories including extra light (1.1-2.5%) and light (2.6-4%).

Low alcohol and dealcoholized claims can be used on beverages with less than 1.1% ABV. On the other hand, any beverage above 1.1% ABV has to indicate the alcohol level on the label.

Generally, alcoholic beverages fall under the Food & Drug Regulations for composition and labelling, including light versions. They are not under the Canadian Food Inspection Agency’s jurisdiction. They are excluded from the Safe Food for Canadians Act, and so they do not require license under that act and do not require a list of ingredients and nutrition facts on the label.

Beverages below 1.1% ABV are considered non-alcoholic. They are classified as ‘foods’ and thus require the same control as every other food, including all licensing and labelling requirements.

SAFE BEVERAGE PROCESSING

In either case, low or no alcohol, safe processing would be similar to other beverages, such as juices. More than one food safety control may be required. Here are a few of the options:

- Chemical controls can include preservatives such as sodium benzoate or potassium sorbate. Acidification to lower the pH below 4.6 can be done with organic acids, including citric and malic acids commonly used for this purpose. And there are other natural preservatives, but in all cases any use of additives should be confirmed on the Health Canada’s List of Permitted Additives.
- Pasteurization uses heat to decrease the microbial load in a product to become shelf-stable. Pasteurization is a time and temperature dependent process and so you need to determine what is required for your product and process.

- There are different methods for pasteurization including batch, which is usually in an open kettle, along with tunnel or similar methods, using closed systems, where they reach high temperatures for short times. If using a batch method, it is important to ensure that all the product reaches the target temperature for the specified time. In these cases, it is good to mix the product and add a few more minutes to ensure full pasteurization, and record temperatures reached.
- Membrane filtration is another option to decrease or remove microorganisms from the product. A standard 0.45 micron (μm) pore size is the most appropriate for general microbiological purposes. These are standard filters used in many liquid processing operations.
- As for any other products, treatment depends on many factors: product composition, and intended storage (i.e., shelf stable or refrigerated), nature of the process, and alcohol level in the case of low alcohol products.

In all cases, good manufacturing practices, such as sanitation, hygiene, storage, and related practices are also critical for the success of the product in addition to these specific controls.

**Please note: different provinces have different % ABV requirements for beverages to be considered non-alcoholic. Most are 1% ABV or less, and this is mainly related to liquor regulations.*

RECAP

- Any product $> 1.1\%$ ABV is considered an alcoholic product, which triggers alcohol license(s) to manufacture and sell.
- Any product below 1.1% is not an alcoholic product; it is considered a (food) beverage, which would require food license(s) to manufacture and sell.
- Products below 1.1% ABV can be labelled “low alcohol” or “dealcoholized”.
- To label “non-alcoholic”, or “alcohol free”, a beverage must have 0.05% ABV or less.
- There are specific alcohol levels to label an alcohol product as “lite” or “light”.
- The alcohol in an alcohol product provides microbial protection; with lower alcohol levels, microbial protection may require other control factors.

WHERE CAN I LEARN MORE?

1. For more information on labelling visit [CFIA Labelling for Alcoholic Beverages](#) (which includes regular, light and low alcoholic products).
2. For information on alcohol free labelling (i.e., beverages) visit [CFIA Food Labelling for Industry](#)
3. For information on alcohol levels in respect to regulations, visit [Food & Drug Regulations \(B.02.003\)](#)