

% Cacao and % Cocoa

With the growing popularity of premium and specialty chocolates in the U.S., consumers are seeing “% **Cacao**” or “% **Cocoa**” on many products and may have questions as to what this means.

In simplest terms, this percentage refers to the total content of ingredients derived from the cacao (or cocoa) bean. This includes chocolate liquor, cocoa butter, and cocoa powder. To minimize confusion for U.S. consumers, we encourage use of the term “% Cacao” rather than “% Cocoa”. For a more detailed discussion, including definitions, keep reading.

Definitions

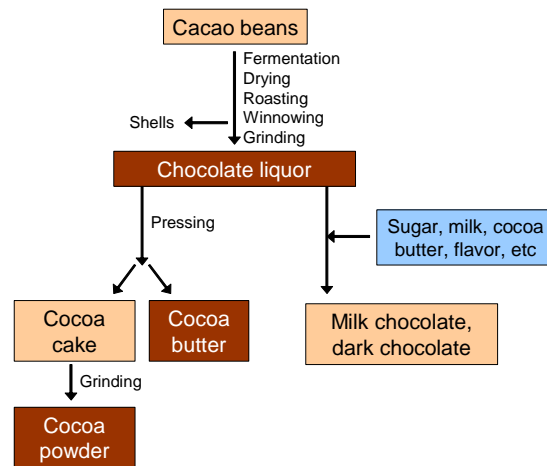
The U.S. Food and Drug Administration (FDA) has established Standards of Identity for various cacao products (21 Code of Federal Regulations Part 163). These standards designate the names of the cacao products as well as the percentage of key ingredients that must be present.

Cacao – used in the FDA regulations to refer to the bean which is the source of the cacao components chocolate liquor, cocoa butter, and cocoa powder.

Chocolate liquor - produced by grinding the cacao bean nib (or center) to a smooth, liquid state. In the U.S., chocolate liquor can also be called chocolate, unsweetened chocolate, baking chocolate, or bitter chocolate. In Canada and Europe, other names include cocoa (cacao) mass and cocoa liquor.

Cocoa butter - the fat naturally present in cacao beans. The amount of cocoa butter in cacao beans typically ranges from 50 to 60%, with the balance being non-fat cocoa solids.

Cocoa or cocoa powder - the product made by removing part of the fat (i.e., cocoa butter) from the cocoa bean and grinding the remaining material to a powder.



The following terms have not been defined by the FDA, but are commonly used in the chocolate industry.

Non-Fat Cocoa Solids - the portion of the cacao beans that is not fat. Since cacao beans typically contain 50-60% fat; the remainder (40-50%) is mostly non-fat cocoa solids with a small amount of moisture. Cocoa differs from non-fat cocoa solids in that cacao still contains some fat.

% Cacao – this term is not regulated by FDA, but refers to the total percentage of ingredients derived from the cocoa bean in chocolate

$$\% \text{ Cacao} = \text{chocolate liquor} + \text{cocoa butter} + \text{cocoa powder}$$

Background of Cacao and Cocoa

Historically, people in the chocolate industry have used “cacao” and “cocoa” interchangeably with both of these terms referring to the cocoa bean. However, under U.S. regulations, “cocoa” and “cocoa powder” are synonymous, referring specifically to the ingredient made by partially defatting the bean.

The use of “% Cacao” originates in Europe where chocolates must be labeled to indicate the minimum total cocoa solids. “Cocoa solids” is not a consumer-friendly term, so this is often stated as “% Cacao” (France, Spain), “% Kakao” (Germany), or % Cocoa (UK). Regardless of the language, this percentage reflects the total of chocolate liquor, cocoa butter, and cocoa powder in chocolates.

In the U.S., chocolate manufacturers are not required to declare the % Cacao. However, some chocolate manufacturers are choosing to do so in light of the increased interest in dark chocolates and European chocolates in the U.S. market.

% Cacao versus % Cocoa

As mentioned previously, “Cacao” includes all the ingredients derived from the cacao bean. Cocoa as defined by the U.S. cacao standards refers only to cocoa powder, i.e., the powder made by grinding partially defatted cacao beans. Some products in the U.S. use the term “% Cocoa” interchangeably with “% Cacao”. This may create some confusion for consumers.

% Cacao may suggest several other characteristics of a chocolate

- **Sweetness:** A higher % Cacao means more cacao bean-derived ingredients; therefore, less added sugar. For example, a 72% Cacao dark chocolate has less sugar than a 60% Cacao dark chocolate. Unsweetened baking chocolate is a 100% Cacao product which has no added sugar.
- **Flavor intensity:** Since a higher % cacao means more cacao bean-related ingredients, this generally means a more intense chocolate flavor. For example, the U.S. cacao standards require a milk chocolate to contain at least 10% chocolate liquor. Semisweet or bittersweet chocolate must contain at least 35% chocolate liquor, resulting in a higher % cacao and a more intense chocolate flavor. White chocolate has a very different flavor profile because its entire % Cacao comes from only cocoa butter.
- **Much of the current positive news about chocolate is focused on the flavanol compounds in chocolate.** These compounds are most closely associated with the non-fat cocoa solids. Since % Cacao includes chocolate liquor, cocoa butter, and cocoa powder, the amount of non-fat cocoa solids in a chocolate can vary widely, depending on recipe. Cacao bean selection, handling, and processing may also impact flavanol content. As a result, % Cacao may not necessarily indicate the flavanol content of chocolates.