CHOCOLATE

Chocolate is derived from the cocoa plant. It is mandated by law to follow a specific recipe or standard of identity. This can be found in 21CFR163. The ingredients and quantities required can be summarized in the following:

Sweet Dark Chocolate: must contain greater than 15% chocolate liquor, less than 12% milk solids, and less than 1% emulsifier. Optional ingredients include sugar, flavoring, and additional cocoa butter.

Semi-Sweet or Bittersweet Dark Chocolate: must contain greater than 35% chocolate liquor, less than 12% milk solids, and less than 1% emulsifier. Optional ingredients include sugar, flavoring, and additional cocoa butter.

Milk Chocolate: must contain greater than 10% chocolate liquor, greater than 12% milk solids, greater than 3.39% milk fat, and less than 1% emulsifier. Optional ingredients include sugar, flavoring, and additional cocoa butter.

White Chocolate: Must contain less than 55% sugar, greater than 20% cocoa fat, greater than 14% total milk, of which 3.5% or more must be milk fat, less than 5% whey products, and less than 1.5% emulsifier. Optional ingredients include vanilla.

While only milk and dark chocolates must contain chocolate liquor, all chocolate including white chocolate must contain cocoa butter. Cocoa butter is a special fat. In order to retain good sensory qualities, including snap, mouthfeel, and gloss, it must be tempered.

COMPOUND

If chocolate does not meet the above standard of identity, it must be referred to as compound coating.

Compound coating, also known as confectionary coating, is a mixture of sugar, vegetable fat, cocoa powder (in the case of chocolate flavored coating), lecithin, and flavor. Compound coating can also refer to a chocolate to which ingredients not included in the CFR have been added.

The ability to use different fats means that compound coating can have many different textures and be used in many different applications- from ‘chips’ in cookies to the coating on ice cream bars.

Chocolate and compound coatings are manufactured in a similar way. When comparing a chocolate to a compound coating, sometimes it may be difficult to taste the difference. The main difference between chocolate and compound coating is the fat- cocoa butter vs. alternate vegetable fat. Compound coating does not need to be tempered, and therefore is more versatile to different temperatures and applications. Also, because there aren’t as many guidelines regarding ingredients, compound coatings can be fortified, colored, or flavored with just about anything, leading to endless possibilities.