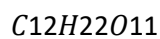
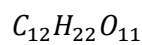




White sugar is nearly pure sucrose, a carbohydrate derived from sugarcane or sugar beets. It is produced through a refining process that involves extracting, boiling, and filtering the juice to remove impurities and molasses, resulting in fine, dry, white crystals. While it provides a quick source of energy, its excessive consumption is linked to several health problems

🔍 **Chemical composition:** It is chemically pure sucrose (



), which is a disaccharide made of glucose and fructose.

🔍 **Refining process:** The process involves several steps:

- Extracting the juice from the plant.
- Boiling the juice to create a thick syrup.
- Crystallizing the sugar from the syrup.
- Using centrifuges to wash and remove the molasses, which is the sticky brown syrup that coats the crystals.
- Filtering the sugar to remove remaining impurities.
- Drying and packaging the final product



Brown sugar is granulated white sugar with molasses added back in, giving it a moist texture, darker color, and a rich, caramel-like flavor. It comes in two main types, light and dark, depending on the amount of molasses. This makes it ideal for baking chewy cookies and cakes, as well as for use in marinades and sauces where a deeper flavor is desired

What it is

- **Composition:** Made by mixing refined white sugar with molasses.
 - **Flavor:** Rich and caramel-like.
- **Texture:** Moist and soft, unlike the dry, granular texture of white sugar

Types

- **Light brown sugar:** Has a small amount of molasses.
- **Dark brown sugar:** Has a higher molasses content



Extra Neutral Alcohol (ENA) is a very pure, colorless, and odorless alcohol used in a wide range of applications, from alcoholic beverages like vodka and gin to products in the pharmaceutical, cosmetic, and flavor industries. It is primarily made from raw materials like sugarcane molasses or grains such as corn, rye, and rice. ENA is prized for its neutrality, which allows other flavors to be the dominant characteristic in a final product

Production and properties

- **Source:** ENA is often a byproduct of the sugar industry, made from molasses left over from sugarcane processing. It can also be made from grains.
- **Purity:** It is the purest form of alcohol, typically containing over 94-96% alcohol by volume.
- **Characteristics:** ENA is colorless, has a neutral smell and taste, and is an excellent solvent



Steel is a strong and versatile alloy primarily made of iron and carbon, with carbon content typically between 0.03%

and 1.075%. Its high tensile strength and relatively low cost make it essential for a vast range of applications, including construction, vehicles, and appliances. Steel is highly durable, widely recyclable, and its properties can be modified by adding other elements to create different grades like stainless steel