

# Flammable vs Combustible

## What's the Difference?



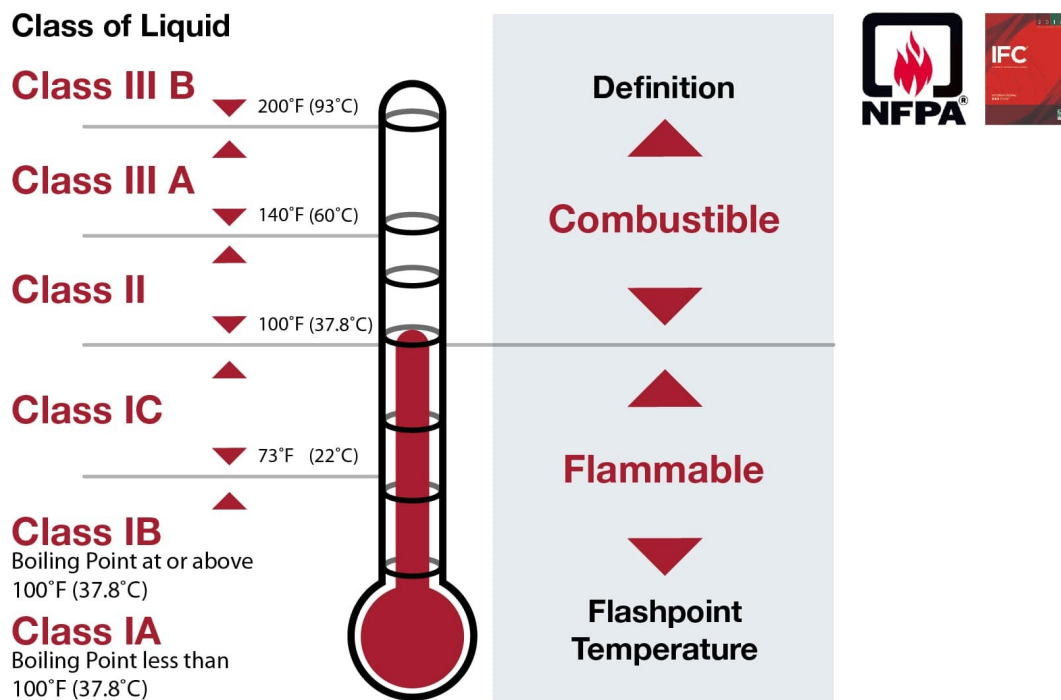
Flammable and combustible are terms used to describe how easily a liquid ignites. While we usually use the term to describe liquids, it is not the liquid that burns – it's the vapor given off by the liquid.

So, what is the difference between flammable and combustible? Flammable liquids burn at normal working temperatures while combustible liquids need heat before they will ignite. They also have different flashpoints.

## Official Definition of Flammable and Combustible

The National Fire Protection Association defines the different classes of flammable and combustible liquids in its Flammable and Combustible Liquids Code, also known as NFPA 30.

### NFPA® 30, NFPA® 1, and IFC Flammable/Combustible Liquid Classification by Flashpoint



The graphic above shows that flammable liquids have a flashpoint below 100 F (37.8 C). Combustible liquids have a flashpoint above 100 F.

# Important Physical Properties of Flammable and Combustible Liquids

Flammable and combustible liquids vary in complexity. But, there are some crucial similarities between the two types of liquid. Here are three defining physical characteristics to keep in mind when handling flammables and combustibles.

## **Flashpoint**

Flashpoint is the main physical property that defines flammable and combustible liquids. It is the minimum temperature at which the vapors given off by a liquid could ignite when mixed with air, near the surface of the liquid.

## **Boiling Point**

The boiling point is the temperature that liquid boils. It occurs when the vapor pressure of the liquid equals the atmospheric pressure. Boiling liquids produce a lot of vapors and the harder they boil, the more vapors they release.

## **Flammable/Explosive Range**

The flammable range of a liquid is a measure of the vapor concentration in the air where an explosion can occur, based on normal atmospheric and temperature variables. If the vapor concentration is "too lean," there is not enough fuel for ignition. If the vapor concentration is "too rich," there is not enough oxygen for ignition. The flammable range is the danger zone for fires.