



Indian Standard — IS 323 : 2009 Rectified Spirit for Industrial use — Specification (Second Revision)

Rectified spirit, also known as *neutral spirits, rectified alcohol, or ethyl alcohol of agricultural origin*, is a highly concentrated form of ethanol. This **clear, colourless**, homogeneous liquid consists primarily of ethyl alcohol, with a strength of no less than **95% ethanol by volume**, mixed with water, making it a potent alcoholic solution. It is often produced through continuous distillation or rectification, which involves repeated *distillation* and *fractionation* to remove impurities and increase alcohol concentration.

Due to its high purity, rectified spirit is valuable across diverse industries. It finds its uses as an ingredient in **homemade liqueurs** like cassis and limoncello. Another popular use is as a solvent in the **medical field, in household products, or in perfumes**, where rectified alcohol is able to bind molecules and fragrance oils. In the **beverage industry**, it is a key component in producing certain spirit drinks.

Consumers seek high-quality rectified spirit that is free of contaminants and impurities, as these factors impact its effectiveness and safety in industrial applications. When selecting rectified spirit for industrial use, buyers depend on properties such as specific gravity, ethanol purity, and controlled impurity levels.

To verify these quality parameters, for industrial applications, Bureau of Indian Standards (BIS) has published **IS 323 : 2009** for *rectified spirit for industrial purposes*. Originally published in 1952 and revised in 1959 and 2009, this standard specifies the requirements and testing methods for rectified spirit intended for industrial use. Importantly, this standard specifically **excludes** rectified spirit intended for *pharmaceutical, medicinal, or alcoholic beverage purposes*.

It outlines the characteristics of rectified spirit, such as *specific gravity, ethanol purity, absence of alkalinity, total acidity and limits on volatile impurities, such as methyl alcohol, aldehydes, and esters*, and provides detailed procedures for determining these characteristics using *hydrometer, spectrophotometer, gas chromatography methods*. It also includes **methods for sampling**.

In conclusion, IS 323:2009 assure that the rectified spirit procured is of high quality, safe, and suitable for industrial applications.