



## Product Information

### Ethanol

Product Number **E 7023**

#### Product Description

Molecular Formula: C<sub>2</sub>H<sub>6</sub>O

Molecular Weight: 46.07

CAS Number: 64-17-5

Boiling point: 78.5 °C

Density: 0.789 g/ml<sup>1</sup>

Synonym: absolute ethyl alcohol

This product is 100% (200 proof) ethanol and has not been denatured. It is designated as Molecular Biology grade. It is suitable for DNA and RNA extraction, and has been analyzed for the presence of nucleases.

Ethanol is a common organic solvent that is widely used in chemistry, biochemistry, and molecular biology. It is also utilized in pharmaceutical and perfume manufacture.<sup>1</sup> Because of its occurrence in alcoholic beverages, ethanol is widely used in *in vivo* studies on alcohol-related pathology.<sup>2,3</sup>

Protocols for the ethanol precipitation of DNA and RNA have been published.<sup>4</sup> A procedure on the detection of ethanol in biological samples by gas chromatography has been reported.<sup>5</sup> Ethanol fractionation for the purification of industrial plasma proteins has been discussed.<sup>6</sup>

#### Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

#### Preparation Instructions

Ethanol is completely miscible with water and with many organic solvents.<sup>1</sup>

#### References

1. The Merck Index, 12th ed., Entry# 3806.
2. Klatsky, A. L., Alcohol and cardiovascular diseases: a historical overview. *Ann. N. Y. Acad. Sci.*, **957**, 7-15 (2002).
3. Weiss, F., and Porrino, L. J., Behavioral neurobiology of alcohol addiction: recent advances and challenges. *J. Neurosci.*, **22(9)** 3332-3337 (2002).
4. *Molecular Cloning: A Laboratory Manual*, 3rd ed., Sambrook, J., and Russell, D.W., CSHL Press (Cold Spring Harbor, NY: 2001), pp. 3.28-3.29, 6.17-6.18, 8.59, 9.34-9.35, 10.20-10.21, A8.14-A8.16.
5. Otsuka, M., Determination of ethanol in biological samples by gas chromatography with an electron-capture detection. *Biol. Pharm. Bull.*, **25(12)**, 1639-1641 (2002).
6. Burnouf, T., and Radosevich, M., Affinity chromatography in the industrial purification of plasma proteins for therapeutic use. *J. Biochem. Biophys. Methods.*, **49(1-3)**, 575-586 (2001).

GCY/JRC 1/03

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