

Status: Currently Official on 13-Feb-2025
Official Date: Official Prior to 2013
Document Type: Reagents
DocId: GUID-530A15C8-0081-46D3-9808-A55DB4282BC8_1_en-US
DOI: https://doi.org/10.31003/USPNF_R1835_01_01
DOI Ref: 712nw

© 2025 USPC
Do not distribute

Alcohol, 70 Percent, 80 Percent, and 90 Percent

—Prepare by mixing alcohol and water in the proportions given, the measurements being made at 25°.

Percent by Volume of C ₂ H ₅ OH at 15.56°	Specific Gravity at 25°	Relative Proportions		Volume in mL of Alcohol, 94.9% v/v, Required for 100 mL
		Alcohol, mL	Water, mL	
70	0.884	38.6	15	73.7
80	0.857	45.5	9.5	84.3
90	0.827	51	3	94.8

The proportions of alcohol and water taken to prepare these or any other percentage (v/v) solutions may be determined as follows. Calculate the amount, in mL, of water to be mixed with 100 mL of alcohol taken by the formula:

$$[94.9(d/c) - 0.8096]100$$

in which 94.9 is the percentage (v/v) of C₂H₅OH in alcohol, 0.8096 is the specific gravity of 94.9% alcohol, d is the specific gravity, obtained from the Alcoholometric Table (see *Reference Tables*), of the solution containing c% (v/v) of C₂H₅OH, and 100 is the volume, in mL, of alcohol taken.

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
ALCOHOL, 70 PERCENT, 80 PERCENT, AND 90 PERCENT	Documentary Standards Support Associate Scientific Liaison.	HDQ Headquarters

Most Recently Appeared In:
Pharmacopeial Forum: Volume No. 45(5)

Current DocId: [GUID-530A15C8-0081-46D3-9808-A55DB4282BC8_1_en-US](#)
DOI: https://doi.org/10.31003/USPNF_R1835_01_01
DOI ref: [712nw](#)