

An ISO 9001: 2000  
Certified Company  
The Promise of Purity



**CERTIFICATE OF ANALYSIS**  
**ETHYL ALCOHOL 200 PROOF, ABSOLUTE**  
**ACS/USP GRADE**

LOT # RH3649

Q.C. # 0404224

Date of Manufacture: 5/3/04

Current Catalog #: 111000200, 111USP200,

Old Cat#112000200, 112USP200, 111ACS200, or 112ACS200

**This product meets or exceeds all specifications as set forth in the current ACS/USP monographs.**

TEST	SPECIFICATION	RESULT
Assay (ACS) (v/v)	NLT 99.5%	99.98%
Water (ACS) (v/v)	NMT 0.2%	0.02%
Proof @ 20C	NLT 199	200.0
Specific Gravity @ 20C	0.7900-0.7932	0.7905
Color (APHA) (ACS)	NMT 10	<10
Solubility in Water (ACS)	To Pass Test	Pass
Nonvolatile Residue (ACS)	NMT 0.001%	<0.001%
Nonvolatile Residue (USP)	NMT 0.0025%	<0.001%
Acetone/IPA (ACS, USP)	To Pass Tests	Pass
Titration Acid (ACS)	NMT 0.0005 meq/g	Pass
Titration Base (ACS)	NMT 0.0002 meq/g	Pass
Acidity (USP)	To Pass Test	Pass
Methanol (ACS)	NMT 0.1%	<0.1%
Methanol (USP)	To Pass Test	Pass
Substances Darkened by Sulfuric Acid (ACS)	To Pass Test	Pass
Substances Reducing Permanganate (ACS)	To Pass Test	Pass
ID Test A (USP) (or validated equivalent)	To Pass Test	Pass
ID Test B (USP) (or validated equivalent)	To Pass Test	Pass
Specific Gravity @ 15.56°C	NMT 0.7962	0.7935
Water Insoluble Substances	To Pass Test	Pass
Aldehydes and Other Foreign Organic Substances	To Pass Test	Pass
Amyl Alcohol/Nonvolatile, Carbonizable Substances	Not Detected	Pass
Ultraviolet Absorbance @ 240 nm (USP)	NMT 0.08	0.06
Ultraviolet Absorbance @ 270-340 nm (USP)	NMT 0.02	0.00
Ultraviolet Absorbance curve between 235 – 350 nm	Smooth	Pass
Ultra Violet Absorbance (ACS) purged of O <sub>2</sub>	To Pass Test	Pass

Form: Ethanol, Pure, 200, ACS/USP, #101, Rev 2.7, 03/11/04

Approved by: P. McGowan, Laboratory Manager

For Industrial, Pharmaceutical, Flavor & Fragrance or Lab Use. Not intended as an active substance in Food or Drug. Not to be considered a Medical Device. Not intended for use as a Disinfectant as defined by the EPA. The expiration date of this product is three years from the date of manufacture excluding Uv/Vis for 200 proof ethanol (See shelf life statement). (Rev. # disclaimer 200 proof only: Rev 3.3 05/13/03 PJM)

*This document has been electronically generated and is therefore not signed. A signed copy can be obtained from Pharmco's Quality Control office.*

58 Vale Road, Brookfield, CT 06804, USA  
Telephone: (203) 740-3471 Fax (203) 740-3481  
E-Mail: [paul@pharmco-prod.com](mailto:paul@pharmco-prod.com)  
Website: [www.pharmco-prod.com](http://www.pharmco-prod.com)