

THE POWER OF THREE<sup>3</sup>**PHARMCO-AAPER**

AND COMMERCIAL ALCOHOLS

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**PRODUCT SPECIFICATION SHEET**  
**ETHYL ALCOHOL 200 PROOF, ABSOLUTE HPLC-UV**  
**ACS/USP GRADE**

Current Catalog #: 111000200-Size Code\*, 111HPLC200- Size Code\*

Available in the following sizes:

*Refer to Master Price List – Individual package sizes have unique size codes
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This product meets or exceeds all specifications as set forth in the current ACS/USP monographs.

TEST	Mono graph	SPECIFICATION	Results
Assay (v/v)	ACS/USP	NLT 99.5%	99.98 %
Water (w/w)	ACS	NMT 0.2%	0.02%
Proof	27CFR 30.23	Lot Analysis	199.9
Specific Gravity	Pharmco	0.7900-0.7932 @ 20°C	0.7906
Specific Gravity	USP	Not more than 0.7962 @ 15.56°C	0.7937
Identification Test A	USP	It complies with the test for Specific Gravity	Pass
Identification Test B	USP	Conforms to Infrared Spectra	Pass
Color (APHA)	ACS	NMT 10	<10
Clarity of Solution	USP	Test Solution A & B show same clarity as that of water, or their opalescence is not more pronounced than that of Reference suspension A	Pass
Color of Solution	USP	The Test solution has the appearance of water or is not more intensely colored than the Standard solution	Pass
Solubility in Water	ACS	To Pass Test	Pass
Nonvolatile Residue	ACS	NMT 0.001%	<0.001%
Limit of Nonvolatile Residue	USP	The weight of the residue does not exceed 2.5mg	<1.0mg
Acetone/IPA	ACS	To Pass Tests	Pass
Titration Acid	ACS	NMT 0.0005 meq/g	<0.0003 meq/g
Titration Base	ACS	NMT 0.0002 meq/g	<0.0001 meq/g
Acidity or Alkalinity	USP	The solution is pink (30ppm, expressed as acetic acid)	Pass
Methanol	ACS	NMT 0.1%	<0.0001%
Substances Darkened by Sulfuric Acid	ACS	To Pass Test	Pass
Substances Reducing Permanganate	ACS	To Pass Test	Pass
Ultraviolet Absorbance	USP	240nm	0.40 max. 0.26
		250nm	0.30 max. 0.10
		260nm	0.30 max. 0.04
		270nm	0.10 max. 0.02
		340nm	0.10 max. 0.00
		Absorption curve between 235nm – 340nm is smooth	Pass
Ultraviolet Absorbance	ACS* / Pharmco	220nm	0.30 max. 0.17
		230nm	0.18 max. 0.09
		240nm	0.08 max. 0.03
		270nm – 400nm	0.01 max. 0.00
*Ultra Violet Absorbance purged of O <sub>2</sub>	ACS	To Pass Test	Pass
Gradient Elution	ACS	To Pass Test	Pass

**Disclaimer:** For Industrial, Pharmaceutical, Flavor & Fragrance or Lab Use. Not intended for use 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 appropriate use of this product is the sole responsibility of the user. \*Excluding UV/Vis for pure Ethyl Alcohol (See shelf life statement). (Rev. # disclaimer only: Rev 3.5 11/06 EF)

An ISO 9001:2000 Certified Company
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Pharmco Products Inc. 58 Vale Road, Brookfield, CT 06804 1-800-243-5360 www.pharmco-prod.com  
 Aaper Alcohol & Chemical Co., Inc. 1101 Isaac Shelby Drive, Shelbyville, KY 40065 1-800-456-1017 www.aaper.com



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Gradient Analysis @ 254nm	ACS	To Pass Test	Pass
Volatile Impurities	USP	Methanol	100 ppm
		Sum of Acetal and Acetaldehyde	10ppm max
		Benzene	2ppm max.
		Sum of all secondary peaks	300ppm max.

Form: Ethanol, Pure, 200, HPLC, #101, Rev 4.3, 6/08, SAK

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Aaper Alcohol & Chemical Co., Inc. 1101 Isaac Shelby Drive, Shelbyville, KY 40065 1-800-456-1017 www.aaper.com

DOT INFORMATION

Ethanol Solutions

Hazard Class: 3

UN 1170

PG: II

Ethanol CAS No. 64-17-5

DSP-CT-18

KOSHER, NOT KOSHER FOR PASSOVER USE



4x4 LITER



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DANGER: FLAMMABLE LIQUID & VAPOR. Keep away from all sources of ignition. Improper Exposure Can Result in Injury or Death! Wear all recommended protective equipment. Refer to MSDS for additional information.\*

STORAGE AND HANDLING: Keep in a cool, dry place. Do not expose to direct sunlight. Use only with proper personal protective equipment and ventilation. Refer to MSDS for additional information.\*

FIRST AID: SEEK IMMEDIATE MEDICAL ATTENTION. REFER TO MSDS FOR APPROPRIATE FIRST AID FOR THIS CHEMICAL.\*

REFER TO MSDS PRIOR TO USE. Use Only Under Appropriate Conditions. Use Only Under Trained Supervision.\*

FOR INDUSTRY/PHARMA/LAB USE ONLY. Not intended as an active substance in Food or Drug. Not to be considered a Med. Device. Not intended for use as a Disinfectant as defined by the EPA.\*

Based on the lot #, this material may be a product of Canada. Packaged in the USA.\*



Expiration Date:

58 Vale Road, Brookfield, CT 06804  
P: 800-243-5360 F: 203-740-3481

1101 Isaac Shelby Drive, Shelbyville, KY 40065  
P: 800-456-1017 F: 502-633-0685

www.pharmco-aaper.com

An ISO9001:2000 Certified Company

ETHYL ALCOHOL 200 PROOF

Absolute, Anhydrous (0.22 Micron Filtered)

General Use HPLC-UV Reagent ACS/USP

Main Catalog No: 111000200

LOT NO: WINE GALLONS: 4.23 GROSS WEIGHT: 44 LBS  
BATCH NO: PROOF: 200 TARE WEIGHT: 16 LBS  
SERIAL NO: PROOF GALLONS: 8.46 NET WEIGHT: 28 LBS

Meets all other applicable ACS/USP Specifications.\*

Test	Specification	Typical
Assay v/v (ACS, USP)	NLT 99.5%	99.98%
Water w/w (ACS)	NMT 0.2%	0.02%
Proof (27CFR 30.23)	Lot Analysis	199.9
Specific Gravity @ 20°C (Pharmco)	0.7900-0.7932	0.7906
Specific Gravity @ 15.56°C (USP)	NMT 0.7962	0.7937
ID Test A (USP)	Complies	Pass
ID Test B (USP)	Conforms	Pass
Color (APHA) (ACS)	NMT 10	<10
Clarity of Solution (USP)	To Pass Test	Pass
Color of Solution (USP)	To Pass Test	Pass
Solubility in Water (ACS)	To Pass Test	Pass
NonVolatile Residue (ACS)	NMT 0.001%	<0.001%
Limit of Nonvolatile Residue (USP)	<2.5mg	<1.0mg
Acetone/IPA (ACS)	To Pass Test	Pass
Titration Acid (ACS)	NMT 0.0005meq/g	<0.0003meq/g
Titration Base (ACS)	NMT 0.0002meq/g	<0.0001meq/g
Acidity or Alkalinity (USP)	To Pass Test	Pass
Methanol (ACS)	NMT 0.1%	0.0001%
Substances Darkened by Sulfuric Acid (ACS)	To Pass Test	Pass
Substances Reducing Permanganate (ACS)	To Pass Test	Pass
UV Absorbance (USP)		
	240nm	0.40 max
	250nm	0.30 max
	260nm	0.30 max
	270nm	0.10 max
	340nm	0.10 max
Absorption curve between 235nm-340nm	Curve is smooth	Pass
Ultraviolet Absorbance (ACS*/Pharmco)		
	220nm	0.30 max
	230nm	0.18 max
	240nm	0.08 max
	270nm-400nm	0.01 max
*Ultra Violet Absorbance purged of O2 (ACS)	To Pass Test	Pass
Gradient Elution (ACS)	To Pass Test	Pass
Gradient Analysis @ 254 nm	To Pass Test	Pass
Volatile Impurities (USP): Methanol	100ppm	<1ppm
Sum of Acetal & Acetaldehyde	10ppm	<1ppm
Benzene	2ppm	<1ppm
Sum of all secondary peaks	300ppm	<1ppm



\*111000200\*