

CERTIFICATE OF ANALYSIS

Product Name ETHYL ACETATE, HPLC-UV
Grade Meets GENERAL USE HPLC-UV GRADE Monographs
Catalog # 33000HPLC
Lot # C21D22008
Date of Manufacture: 04/22/21
Recommended Retest Date: Five Years from Date of Manufacture

TEST	MONO GRAPH	SPECIFICATION	RESULT
Assay (corrected for water)	ACS	99.5%, min	99.99%
Assay	NF	98.0-102.0%	100.00%
Chromatographic Purity	NF	Acetaldehyde	NMT 0.1% None Detected
		Ethyl isobutyl ether	NMT 0.1% None Detected
		Methyl compounds	NMT 0.1% None Detected
		Other impurities	NMT 0.3% None Detected
Color (APHA)	ACS	10 max	1
Identification	NF	Infrared Absorption <197F>	Pass
Specific Gravity @ 25°C	NF	0.894-0.898	0.897
Acidity	NF ⁺	NMT 0.10mL of 0.10N NaOH for neutralization	0.05 mL
Titration Acid	ACS	NMT 0.0009 meq/g	0.0003 meq/g
Readily Carbonizable Substances	NF ⁺	No dark zone develops within 15 minutes	Pass
Substances Darkened by Sulfuric Acid	ACS ⁺	Passes Test	Pass
Limit of Methyl Compounds	NF ⁺	No violet color appears	Pass
Limit of nonvolatile residue	NF ⁺	NMT 0.02%	0.00%
Residue After Evaporation	ACS+	0.003% max.	0.000%
Water	ACS	0.2% max.	0.01%
UV Absorbance	ACS/HPLC	255 nm	1.00 max. 0.48
		257 nm	0.50 max. 0.24
		263 nm	0.10 max. 0.03
		275 nm	0.05 max. 0.01
		330-400 nm	0.01 max. 0.00

* This test is performed quarterly

CERTIFICATE OF ANALYSIS

Product Name	HEXANES
Grade	Meets REAGENT GRADE ACS Monograph
Catalog #	359000ACS, zp359000ACS
Lot #	C20I15DRM0000HEX
Date of Manufacture:	10/20/20
Recommended Retest Date:	Five Years from Date of Manufacture

TEST	Specification	Result
Appearance	Clear, Colorless Liquid	Pass
Assay (Total Hexane Isomers, plus & Methylcyclopentane)	NLT 98.5%	99.5%
n-Hexane, vol%	45.0% min.	48.1%
Color (APHA)	10 max	2
Residue after Evaporation	0.001% max	0.000%
Water Soluble Titrable Acid	0.0003 meq/g max.	0.0001 meq/g
Sulfur Compounds (as S)	0.005% max.	< 0.005%
Thiophene	To Pass Test	Pass

Certification and Compliance Statements

<p>This lot of Hexanes complies with all of the current requirements listed in the American Chemical Society monograph. Certain test data have been supplied by third parties.</p>
<p>This product is a general use solvent. It is not suitable for critical applications. Failing test results for Residue on Evaporation obtained by NMR, GC/MS, rotovap or other methods not concurrent with thus outlined in the most current edition of the American Chemical Society monograph for Reagent Chemicals will not be approved as valid for return.</p>
<p>This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.</p>
<p>This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.</p>

Approved by: T. Boudreau, Quality Control Chemist Date of Approval: 12/21/2020

