

BRENNTAG MID-SOUTH, INC
 1405 Highway 136 West
 Henderson, Kentucky 42420-0020
 Tel. (270) 830-1222 • Fax (270) 826-1486

CERTIFICATE OF ANALYSIS

ACETIC ACID GLACIAL FOOD GRADE KOSHER

CUSTOMER:	LOT NUMBER: 256119248255001
	DATE ANALYZED: 9-12-18

PARAMETERS	ANALYSIS	SPECIFICATIONS
Identification	Passes	1:3 Aqueous solution gives positive tests for acetate.
Assay by wt. of C ₂ H ₄ O ₂ *	99.88	99.85% min.*
Non-Volatile Residue*	< 0.005	0.005% max.*
Lead*	< 0.5	0.5 ppm max.*
Readily Oxidizable Substances*	Passes	Passes Test*
Solidification Point*	16.39	Not cooler than 16.35°C

* Values as reported by Vender.

INCOMING PRODUCT INFORMATION (VENDER AND CARRIER)	
VENDER: Celanese	CARRIER: Liquid Transport Corp
VENDER LOT NUMBER: 50002305609	VEHICLE NUMBER: 8485

Analyst: S. Overall	Approved: <i>Josh Tobin</i>
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cc: With Shipment
 Lab File

Direct questions concerning certification of this product to personnel at the location marked below.

- Henderson, KY 270-830-1258

Form Approval: *Brian Conrad*

Form Approval Date: 4/13/18

C:\RD1\WORD\COA\ACETIC GLACIAL FG

"All information provided is believed to be accurate and complete. The data provided is representative of the product quality on the date of analysis for the lot number indicated. This certificate of analysis may not include all of the constituents of the product. Persons using this information should make their own determination regarding its suitability for their particular application. This certificate of analysis shall not in any way limit or preclude the operation and effect of the applicable terms and conditions of sale."

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APPROVED
9-12-18 30
Lot# 248255001

PETRA CHEMICAL
6400 COLLINSVILLE ROAD
EAST SAINT LOUIS IL 62201
USA

Clear Lake, TX
Celanese LTD.
9502 Bayport Blvd.
PASADENA TX 77507-1498
USA

Certificate of Analysis / PQR

Customer no.: 2197641	Date: 26 Jul 2018
Sold-To PO: 804776	Delivery item/date: 85759040 000010 / 03 Aug 2018
Product: Glacial Acetic Acid # Kosher Grade	Delivery item Qty: 192,350.000 LB
Product no.: 51012091	Order Item /date: 2026665 000010 / 10 Jul 2018
Customer Material ID: 278938	Carrier: 5000303 UNION PACIFIC RAILROAD CO
	Container no.: GATX029067

Lot no. 50002305609

Characteristic	UoM	Value	Limit
Acetic Acid	%(m)	99.88	min. 99.85
Freezing Point	°C	16.39	min. 16.35
Color	Pt-Co unit	2.8	max. 10.0
Water	%(m)	0.09	max. 0.15
Formic acid	%(m)	0.0021	max. 0.0500
Aldehydes, as Acetaldehyde	%(m)	0.0003	max. 0.0500
Permanganate Time	Hour	> 2	min. 2
Heavy Metals, as Pb	ppm(m)	< 0.5	max. 0.5
Iron	ppm(m)	< 0.10	max. 0.40
Chlorides	ppm(m)	< 0.1	max. 1.0
Sulfates	ppm(m)	< 1.0	max. 1.0
Sulfurous Acid	ppm(m)	< 1.0	max. 1.0
Distillation range	°C	0.7	max. 1.0
Appearance		Clear and free	

The above particulars do not release the customer from the obligation to carry out an inspection of goods received.

Quality Inspector

This report is electronically produced and is valid without signature.

The values shown represent testing performed on bulk material and are not shipment-specific, unless indicated with asterisk (*).
If you have any questions on quality or weight of this shipment, please call your customer service representative.

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