CERTIFICATE OF ANALYSIS

BASELINE® Acetic Acid

PF	RODUC	T NUME	BER: S	020601	L	OT NUN	IBER:	621607	6	ASSAY	(CH ₃ C	OOH, w	//w): 9	9.2%		
2A 4 Be < 0.01	average evaporat	of three ali ed to dryne	quots subs ss. The res	ampled fro ulting resid	m three san	nples repres	sentative of mall volume	the lot. The of SEASTA	e samples a AR™ BASEL	are slowly INE® 2%	3A	4A	5A	6A	7A	
12 Mg < 0.5	directly ir blank val	njected into ue is subtra	the ICP-MS cted.	S. Values be	elow 3 times		d deviation		are shown v	with '<', no	13 AI < 1					
20 0-					_	20 50		20 NE			24 00	22 00	22 4-	24 Co		
< 50 Ca	< 0.01	< 0.2			< 0.1	< 5			< 0.5	< 5	< 0.01	32 Ge < 1	< 0.01	< 50		
38 Sr < 0.05	39 Y < 0.01	40 Z r < 0.01		42 M c < 10		44 Ru < 0.01	45 Rh < 0.01	46 Pd	47 Ag < 0.01	48 Cd < 0.05	49 In < 0.01	50 Sn < 0.2	51 Sb < 0.05	52 Te < 0.01		
56 Ba < 0.1	line to		73 Ta						79 Au							
	2A 4 Be < 0.01 12 Mg < 0.5 4 20 Ca < 50 5 38 Sr < 0.05 6 56 Ba	2A Most ele average evaporat Nitric Aci directly in blank val 3B 20 Ca 21 Sc < 50 < 0.01 38 Sr 39 Y < 0.05 56 Ba 57 La	2A Most elements are of average of three alifered evaporated to dryne Nitric Acid / 2% Hydrox directly injected into blank value is subtra 3B 4B 20 Ca 21 Sc 22 Ti < 50 < 0.01 < 0.2 38 Sr 39 Y 40 Zr < 0.05 < 0.01 < 0.01 56 Ba 57 La 72 Hf	2A 4 Be	4 Be average of three aliquots subsampled from evaporated to dryness. The resulting residu Nitric Acid / 2% Hydrogen Peroxide. For wide directly injected into the ICP-MS. Values be blank value is subtracted. 3B 4B 5B 6B 4 20 Ca 21 Sc 22 Ti 23 V 24 Cr 3	A Be average of three aliquots subsampled from three san evaporated to dryness. The resulting residue is reconstructed into the ICP-MS. Values below 3 times blank value is subtracted. 3B 4B 5B 6B 7B 4 20 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 4 Sc 50 < 0.01 < 0.2 < 0.02 < 0.5 < 0.1 38 Sr 39 Y 40 Zr 42 Mo < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 1	A Be average of three aliquots subsampled from three samples represented to dryness. The resulting residue is reconstituted in a subsample of three aliquots subsampled from three samples represented to dryness. The resulting residue is reconstituted in a substructed into the ICP-MS. Values below 3 times the standard blank value is subtracted. 3B 4B 5B 6B 7B 420 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 26 Fe 30 Color of the ICP-MS. Values below 3 times the standard blank value is subtracted. 3B 4B 5B 6B 7B 420 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 26 Fe 30 Color of the ICP-MS. Values below 3 times the standard blank value is subtracted. 3B 4B 5B 6B 7B 420 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 26 Fe 30 Color of the ICP-MS. Values below 3 times the standard blank value is subtracted. 3B 4B 5B 6B 7B 420 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 26 Fe 30 Color of the ICP-MS. Values below 3 times the standard blank value is subtracted. 3B 4B 5B 6B 7B 40 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 26 Fe 30 Color of the ICP-MS. Values below 3 times the standard blank value is subtracted.	Most elements are determined by high resolution ICP-MS using sample pred average of three aliquots subsampled from three samples representative of evaporated to dryness. The resulting residue is reconstituted in a small volume Nitric Acid / 2% Hydrogen Peroxide. For volatile elements (indicated by *), to directly injected into the ICP-MS. Values below 3 times the standard deviation blank value is subtracted. 3B 4B 5B 6B 7B 8 420 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 26 Fe 27 Co < 50 < 0.01 < 0.2 < 0.02 < 0.5 < 0.1 < 5 < 0.05 38 Sr 39 Y 40 Zr 42 Mo 44 Ru 45 Rh < 0.05 < 0.01 < 0.01 < 0.01	Most elements are determined by high resolution ICP-MS using sample preconcentration average of three aliquots subsampled from three samples representative of the lot. The evaporated to dryness. The resulting residue is reconstituted in a small volume of SEASTA Nitric Acid / 2% Hydrogen Peroxide. For volatile elements (indicated by *), the acid same directly injected into the ICP-MS. Values below 3 times the standard deviation of the blank blank value is subtracted. 3B 4B 5B 6B 7B 8 4 20 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 26 Fe 27 Co 28 Ni 45 Ni 46 Pd 47 Ni 4	A Be average of three aliquots subsampled from three samples representative of the lot. The samples revaporated to dryness. The resulting residue is reconstituted in a small volume of SEASTAR™ BASEL Nitric Acid / 2% Hydrogen Peroxide. For volatile elements (indicated by *), the acid samples are didirectly injected into the ICP-MS. Values below 3 times the standard deviation of the blank are shown volume of SEASTAR™ BASEL Nitric Acid / 2% Hydrogen Peroxide. For volatile elements (indicated by *), the acid samples are didirectly injected into the ICP-MS. Values below 3 times the standard deviation of the blank are shown volume of SEASTAR™ BASEL Nitric Acid / 2% Hydrogen Peroxide. For volatile elements (indicated by *), the acid samples are didirectly injected into the ICP-MS. Values below 3 times the standard deviation of the blank are shown volume of SEASTAR™ BASEL Nitric Acid / 2% Hydrogen Peroxide. For volatile elements (indicated by *), the acid samples are didirectly injected into the ICP-MS. 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Values below 3 times the standard deviation of the blank are shown with '<', no blank value is subtracted. 3B 4B 5B 6B 7B 8 1B 2B 42 0 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Min 26 Fe 27 Co 28 Ni 29 Cu 30 Zn < 50 < 0.01 < 0.2 < 0.02 < 0.5 < 0.1 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 5 < 0.05 < 0.05 < 5 < 0.05 < 0.05 < 5 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05	A Be average of three aliquots subsampled from three samples representative of the lot. 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The results are an average of three aliquots subsampled from three samples representative of the lot. The samples are slowly evaporated to dryness. The resulting residue is reconstituted in a small volume of SEASTAR™ BASELINE® 2% Nitric Acid / 2% Hydrogen Peroxide. For volatile elements (indicated by *), the acid samples are diluted then directly injected into the ICP-MS. Values below 3 times the standard deviation of the blank are shown with '<', no blank value is subtracted. 3B 4B 5B 6B 7B 8 1B 2B 2B 2B 20 Ca 21 Sc 22 Ti 23 V 24 Cr 25 Mn 26 Fe 27 Co 28 Ni 29 Cu 30 Zn 31 Ga 32 Ge < 50 < 0.01 < 5 CO 38 Sr 39 Y 40 Zr 42 Mo 44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn < 0.05 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.02	A Be average of three aliquots subsampled from three samples representative of the lot. The samples are slowly evaporated to dryness. The resulting residue is reconstituted in a small volume of SEASTAR™ BASELINE® 2% Nitric Acid / 2% Hydrogen Peroxide. 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ALL VALUES ARE REPORTED IN PARTS PER TRILLION (PPT)

(1) (2) (3) (4)

(1) Atomic Number

(2) Elemental Symbol (3) Concentration (mean

in ppt)
(4) 1 Standard Deviation
(N=3)

< 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01



CH₃COOH (≥99%): Properties

Molar Mass: 60.05g/mol Density: 1.05 g/ml Molarity: 18 moles/litre

Normality: 18 moles/litre

Release Date:

May 12, 2017

Expiry Date:

May 12, 2020







SEASTAR™'s Product Integrity Guidelines:

We have found our products, unopened and sealed, maintain the certified integrity, or product quality, for their stated certification period under the following conditions:

- Store at room temperature, maximum range 15°C (59°F) to 25°C (77°F).
- Avoid exposure to sunlight or ultraviolet light sources.
- Open in a 'particle free' environment. SEASTAR recommends a HEPA or ULPA particle filtered trace metal clean room. Open product should be handled under Class 100 or ISO 5 clean room or better conditions.

Once opened, product integrity will depend on proper handling and exposure to contaminants. To reduce trace metal contamination, the inner pack of plastic bags and bottle should be opened under Class 100 or ISO 5 clean room or better conditions to maintain the integrity of the product. The use of plastic gloves, hair net and a clean room suit is also advised.

Safety Guidelines:

PRIOR to opening or storing this product be sure to consult the Safety Data Sheet (SDS) to ensure safe storage and handling with regards to this hazardous material. This information must be read and understood prior to use or storage.

SAFETY HANDLING NOTES: Consult the SDS PRIOR to handling this product. Use proper safety apparel according to the recommendations of the SDS. Exposure controls and personal protection should include: a properly functioning fume hood, protection for eyes (safety glasses), hands (chemically compatible gloves), feet (chemically compatible boots), and exposed skin (splash protection and a chemically compatible apron). All of these items must conform to local/regional/national regulatory requirements.

Greg Henson

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QA & RA Manager

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