CERTIFICATE OF ANALYSIS BASELINE[®] Acetic Acid

<u>1A</u>	PRODUCT NUMBER: S020601					L	OT NUM	IBER:	621607 <i>4</i>	4	ASSAY	(CH ₃ C	OOH, w	/w): 99	9.9%		
3 Li < 5	2A Most elements are determined by high resolution ICP-MS using sample preconcentration. 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. Operations are conducted under Class 100 or better clean-room conditions. 3A 4A 5A														6A	7A	
11 Na < 5	12 Mg < 5	below 3 ti	mes the sta	ndard devia	by *), the ac ation of the b	ank are sho				cted.		13 AI < 10					
		3B	4B	5B	6B	7B		8		1B	2B						
19 К < 5	20 C a < 30	21 Sc < 0.01	22 Ті < 0.5	23 V < 0.05	24 Cr < 0.5	25 Mn < 0.1	26 Fe < 20	27 Co < 0.1	28 Ni < 5	29 Cu < 5	30 Zn < 5	31 Ga < 0.01	32 Ge < 2	33 As < 0.01	34 Se < 50		
37 Rb < 0.01	38 Sr < 0.1	39 Y < 1	40 Zr < 0.05		42 Mo < 5		44 Ru < 0.01	45 Rh < 0.01	46 Pd	47 Ag < <mark>0.01</mark>	48 Cd < 0.05	<mark>49 In</mark> < 0.01	50 Sn < 0.5	51 Sb < 0.1	52 Τe < 0.01		
55 Cs < 0.01	56 B a < 0.1	57 La < 0.01	72 Hf < 0.01	73 Ta	74 W < 0.5	75 Re < 0.01		÷	78 Pt < 5	79 Au		<mark>81 TI</mark> < 0.01	82 Pb < 0.05	83 Bi < 0.01			
		1															

ALL VALUES ARE REPORTED IN PARTS PER TRILLION (PPT)

KEY	(1) Atomic Number	58 Ce	59 Pr	60 Nd	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
	(2) Elemental Symbol	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01
	 3) Concentration (mean in ppt) 4) 1 Standard Deviation (N=3) 				1. Contraction 1. Contractio 1. Contraction 1. Contraction 1. Contraction 1. Cont									
(4)		90 Th		92 U										
		< 0.01		< 0.01				- E						
	(11 3)				-				-					

<u>CH3COOH (≥99%):</u> Properties Molar Mass: 60.05g/mol Density: 1.05 g/ml Molarity: 18 moles/litre Normality: 18 moles/litre

Brey Herrow



Greg Henson QA & RA Manager Release Date: Expiry Date: January 18, 2017 January 18, 2020



Product Integrity:

Based on extensive testing results, SEASTAR CHEMICALS INC have found our products, unopened and sealed, maintain the certified integrity, or product quality, for a minimum of three years under the following conditions:

- Stored at room temperature, maximum range 15°C (59°F) to 25°C (77°F).
- Minimum exposure to light.
- For limited time, storage/transport temperature range 5°C (41°F) to 35°C (95°F)

Upon opening the product, the product's integrity will depend on proper handling and exposure to contaminants. The product has been bottled under CLASS 100 clean room conditions, to maintain the certified quality it should be used under these conditions. Furthermore to reduce trace metal contamination, the inner pack of plastic bags and bottle should be opened under CLASS 100 particle conditions to maintain the integrity of the product. The use of plastic gloves, hair net and a clean room suit is also advised.

Safety:

PRIOR to opening or storing this product be sure to consult the Material Safety Data Sheet (MSDS) Section 7 Handling and Storage to ensure safe storage and handling with regards to this hazardous material. This information must be understood prior to its use or storage.

SAFETY HANDLING NOTES: Consult your MSDS, PRIOR to handling these materials. Use proper safety apparel according to the recommendations of the MSDS. 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.

Bregterin

Greg Henson QA & RA Manager

10005 McDonald Park Road, Sidney, BC, Canada V8L 5Y2 phone: (250) 655-5880 fax: (250) 655-5888 toll free: 1 (800) 663-2330 (within Canada & U.S. only) Email: <u>seastar.technicalsupport@seastarchemicals.com</u> Web: <u>www.seastarchemicals.com</u>