CERT CATE ANA Contraction of the local division of the loc **BASELINE®** Hydrofluoric Acid

1A	F	PRODU		IBER: \$	6020502	2 L	LOT NUMBER: 5216072					ASSAY (HF, w/w): 49%					
3 Li < 0.01	 < 0.1 < 0.1 average of three anglos subsampled norm 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% < 20 Nitric Acid / 2% Hydrogen Peroxide. Operations are conducted under Class 100 or better clean-room conditions. 													7A			
11 Na < 5	12 Mg < 2								lue is subtra		2B	13 AI < 5					
19 К < 5	20 C a < 10	21 Sc < 0.01	22 Т і < 5	23 V < 0.1	24 Cr < 5	25 M n < 0.1	26 Fe < 10	27 Co < 1	<mark>28 Ni</mark> < 15	29 Cu < 5	<mark>30 Z</mark> r < 5	31 G a	32 Ge < 0.05	33 As * <1	34 Se < 10		
37 Rb < 0.01	38 Sr < 0.02	39 Y < 0.01	40 Zr < 0.5	41 Nb < 0.05	42 Mo < 0.5		44 Ru < 0.01	45 Rh < 0.01	46 Pd < 0.1	47 Ag < 0.01	48 Co < 0.05		50 Sn < 0.5	51 Sb < 0.05	52 Te < 0.01		
55 Cs < 0.01	56 Ba < 0.1	57 La < 0.01	72 Hf < 0.01	73 Ta < 0.01	74 W < 20	75 Re < 0.01			78 Pt < 0.1	7 <mark>9 Au</mark> < 0.1	80 Hg < 20	* <mark>81 TI</mark> < 0.01	82 Pb < 0.2	83 Bi < 0.05			
		100															

ALL VALUES ARE REPORTED IN PARTS PER TRILLION (PPT)

<u>KEY</u>		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
(3) (4)	(2) Elemental Symbol(3) Concentration (mean	< 0.01	< 0.01	< 0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	in ppt)	90 Th	-	92 U											
	(4) 1 Standard Deviation (N=3)	< 0.01	£	< 0.01	1.1				5						
								-							

Maximum

Specification

100 ppb

Actual

Value (in ppb)

< 50 ppb

HF (47 - 51%): Properties Molar Mass: 20.01g/mol Density: 1.18 g/ml Molarity: 29 moles/litre

Normality: 29 moles/litre

BASELINE

Bregtenn

Analyte

Total Sulphur (S)

Greg Henson QA & RA Manager May 01, 2017

May 01, 2020

Release Date:

Expiry Date:



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

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