## GFS Chemicals, Inc. Columbus, Ohio 43223

## LOT ANALYSIS ITEM: 2584 AMMONIUM HYDROXIDE, SUPERIOR REAGENT (ACS)

LOT#:C033387

Test	PASS/FAIL	NUMERICAL RESULT
Assay 28.0-30.0% NH3	PASS	29.9%
Residue after ignition 0.002%	PASS	<0.002%
Carbon dioxide 0.002%	PASS	<0.002%
Chloride 0.00005%	PASS	<0.00005%
Phosphate 0.0002%	PASS	<0.0002%
Sulfur (as SO4) 0.0002%	PASS	<0.0002%
Heavy metals (as Pb) 0.00005%	PASS	<0.00005%
Iron 0.00002%	PASS	<0.00002%
Substances reducing permanganate - Pass test	PASS	pass test
Nitrate 0.0002%	PASS	<0.0002%
Colorless & free from suspended matter or sediment	PASS	pass test

TRACEABLE TO N.I.S.T. (Y/N)? Y Comment: Reported by: Nicholas E. Dangler Quality Assured to Retest Point: 60 months from shipment C/A Print Date: 12/22/2015

QC Supervisor: Charles Fontaine

Not for direct use in food, cosmetics, finished pharmaceuticals or drug products. Supplier is not responsible for compliance with FDA Current Good Manufacturing Practice (CGMP) requirements, including without limitation those for finished drug products in 21 C.F.R Parts 210 and 211. Consult warranty limitations at www.gfschemicals.com/statics/documents/aboutus/termsandconditions.html For resale by GFS authorized distributors only.

GFS Chemicals, Inc. P.O. Box 245 Powell, OH 43065 \* Signed Orig. Doc. on File 800-858-9682 (U.S. and Canada) 740-881-5501(International) 740-881-5989 (Fax)

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LOT ANALYSIS

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The trace element impurity levels in this product have been determined by Atomic Absorption (AA) and/or Plasma Emis

Al	<0.1	Ag	<0.1	Au	<0.1	Ba	<0.1	Ca	< 0.3
Cd	<0.1	Co	< 0.1	Cr	< 0.1	Cu	< 0.1	Hg	<0.1
K	<0.3	Li	<0.1	Mg	< 0.3	Mn	< 0.1	Mo	<0.1
Na	0.2	Ni	<0.1	Pb	<0.1	Sr	<0.1	Zn	<0.1

See Comments for Concentration

Comment: ALL RESULTS ARE IN PPM'S Reported by: Nicholas E. Dangler C/A Print Date: 12/22/2015

QC Supervisor: Charles Fontaine

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