



## Material Specifications

### Nitric Acid – Ultrapure

Grade - 2

Product Code	N32		
Parameters	Units	Specifications	Test Method
Assay	% w/w	67-70	Acid Base Titration
Color	APHA	<= 10	
ROI (as SO <sub>4</sub> )	ppm	<= 2	ACS
Chloride	ppb	<= 50	ACS
Phosphate (PO <sub>4</sub> )	ppb	<= 10	ACS
Sulfate (SO <sub>4</sub> )	ppb	<= 200	ACS
Aluminium - Al	ppb	<= 5	By ICP-MS
Antimony - Sb	ppb	<= 0.5	By ICP-MS
Arsenic - As	ppb	<= 0.5	By ICP-MS
Barium - Ba	ppb	<= 0.5	By ICP-MS
Beryllium - Be	ppb	<= 0.5	By ICP-MS
Bismuth - Bi	ppb	<= 0.5	By ICP-MS
Cadmium - Cd	ppb	<= 0.5	By ICP-MS
Calcium - Ca	ppb	<= 2	By ICP-MS
Chromium - Cr	ppb	<= 1	By ICP-MS
Cobalt - Co	ppb	<= 0.5	By ICP-MS
Copper - Cu	ppb	<= 0.5	By ICP-MS
Gallium - Ga	ppb	<= 0.1	By ICP-MS
Germanium - Ge	ppb	<= 0.1	By ICP-MS
Gold - Au	ppb	<= 0.1	By ICP-MS
Indium - In	ppb	<= 0.5	By ICP-MS
Iron - Fe	ppb	<= 2	By ICP-MS
Lead - Pb	ppb	<= 2	By ICP-MS
Lithium - Li	ppb	<= 0.5	By ICP-MS
Magnesium - Mg	ppb	<= 1	By ICP-MS
Manganese - Mn	ppb	<= 0.5	By ICP-MS
Mercury - Hg	ppb	<= 1	By ICP-MS
Molybdenum - Mo	ppb	<= 0.5	By ICP-MS
Nickel - Ni	ppb	<= 5	By ICP-MS
Platinum - Pt	ppb	<= 0.5	By ICP-MS
Potassium - K	ppb	<= 2	By ICP-MS
Silver - Ag	ppb	<= 0.5	By ICP-MS



Test Name	Units	Specifications	Test Method
Sodium - Na	ppb	<= 10	By ICP-MS
Strontium - Sr	ppb	<= 0.5	By ICP-MS
Thallium - Tl	ppb	<= 0.5	By ICP-MS
Tin - Sn	ppb	<= 0.5	By ICP-MS
Titanium - Ti	ppb	<= 1	By ICP-MS
Vanadium - V	ppb	<= 0.5	By ICP-MS
Zinc - Zn	ppb	<= 2	By ICP-MS
Zirconium - Zr	ppb	<= 1	By ICP-MS

## Product Integrity Guidelines

- Recommended Storage Temp – 15 – 25° C.
- Avoid exposure to Sunlight & UV Light Source.
- Open in Class 100 or ISO Class 5 Cleanroom or better environment conditions.
- Once opened, Product integrity depends on chemist handling the product.

Approved by



Priyank Patel