



|                      |                                   |
|----------------------|-----------------------------------|
| Material             | 83870.270                         |
| Material description | Ammonia 20%                       |
| Grade                | NORMATOM for trace metal analysis |
| CAS Number           | 1336-21-6                         |
| Molecular formula    | H <sub>3</sub> N                  |
| Molecular mass       | 17.03                             |

| Characteristics             | Specifications |
|-----------------------------|----------------|
| Assay                       | 20 - 22 %      |
| Colouration                 | ≤ 10 APHA      |
| Cl (Chloride)               | ≤ 0.5 ppm      |
| PO <sub>4</sub> (Phosphate) | ≤ 0.01 ppm     |
| SO <sub>4</sub> (Sulphate)  | ≤ 1 ppm        |
| Ag (Silver)                 | ≤ 0.5 ppb      |
| Al (Aluminium)              | ≤ 1 ppb        |
| As (Arsenic)                | ≤ 1 ppb        |
| Au (Gold)                   | ≤ 0.5 ppb      |
| Ba (Barium)                 | ≤ 0.1 ppb      |
| Be (Beryllium)              | ≤ 0.1 ppb      |
| Bi (Bismuth)                | ≤ 0.1 ppb      |
| Ca (Calcium)                | ≤ 1 ppb        |
| Cd (Cadmium)                | ≤ 0.5 ppb      |
| Ce (Cerium)                 | ≤ 0.1 ppb      |
| Co (Cobalt)                 | ≤ 0.5 ppb      |
| Cr (Chromium)               | ≤ 0.5 ppb      |
| Cs (Cesium)                 | ≤ 0.1 ppb      |
| Cu (Copper)                 | ≤ 0.5 ppb      |
| Dy (Dysprosium)             | ≤ 0.1 ppb      |
| Er (Erbium)                 | ≤ 0.1 ppb      |
| Eu (Europium)               | ≤ 0.1 ppb      |
| Fe (Iron)                   | ≤ 1 ppb        |
| Ga (Gallium)                | ≤ 0.1 ppb      |
| Gd (Gadolinium)             | ≤ 0.1 ppb      |
| Ge (Germanium)              | ≤ 0.1 ppb      |
| Hg (Mercury)                | ≤ 0.1 ppb      |
| Ho (Holmium)                | ≤ 0.2 ppb      |

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For Professional use in Laboratory or Manufacturing. Not for use as an Active Pharmaceutical Ingredient or Food or Animal Feed. Suitability and intended use of the product remains the responsibility of the user.



| Characteristics   | Specifications |
|-------------------|----------------|
| In (Indium)       | ≤ 0.1 ppb      |
| K (Potassium)     | ≤ 1 ppb        |
| La (Lanthanum)    | ≤ 0.1 ppb      |
| Li (Lithium)      | ≤ 0.1 ppb      |
| Lu (Lutetium)     | ≤ 0.1 ppb      |
| Mg (Magnesium)    | ≤ 1 ppb        |
| Mn (Manganese)    | ≤ 0.5 ppb      |
| Mo (Molybdenum)   | ≤ 0.5 ppb      |
| Na (Sodium)       | ≤ 1 ppb        |
| Nb (Niobium)      | ≤ 0.1 ppb      |
| Nd (Neodymium)    | ≤ 0.1 ppb      |
| Ni (Nickel)       | ≤ 0.5 ppb      |
| Pb (Lead)         | ≤ 0.1 ppb      |
| Pr (Praseodymium) | ≤ 0.1 ppb      |
| Rb (Rubidium)     | ≤ 0.1 ppb      |
| Rh (Rhodium)      | ≤ 0.5 ppb      |
| Sb (Antimony)     | ≤ 0.5 ppb      |
| Sc (Scandium)     | ≤ 0.1 ppb      |
| Se (Selenium)     | ≤ 1 ppb        |
| Sm (Samarium)     | ≤ 0.1 ppb      |
| Sn (Tin)          | ≤ 0.5 ppb      |
| Sr (Strontium)    | ≤ 0.1 ppb      |
| Tb (Terbium)      | ≤ 0.1 ppb      |
| Te (Tellurium)    | ≤ 0.1 ppb      |
| Th (Thorium)      | ≤ 0.1 ppb      |
| Ti (Titanium)     | ≤ 0.5 ppb      |
| Tl (Thallium)     | ≤ 0.1 ppb      |
| Tm (Thulium)      | ≤ 0.1 ppb      |
| U (Uranium)       | ≤ 0.1 ppb      |
| V (Vanadium)      | ≤ 0.5 ppb      |
| W (Tungsten)      | ≤ 0.1 ppb      |
| Y (Yttrium)       | ≤ 0.1 ppb      |
| Yb (Ytterbium)    | ≤ 0.1 ppb      |
| Zn (Zinc)         | ≤ 0.5 ppb      |
| Zr (Zirconium)    | ≤ 0.1 ppb      |

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# Product Specification



## Signature

We certify that this batch conforms to the specifications listed above.

This document has been produced electronically and is valid without a signature.

VWR International

