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Ammonium Chloride

NH_4Cl 53.49

Ammonium chloride.

Ammonium chloride CAS RN®: 12125-02-9; UNII: 01Q9PC255D.

» Ammonium Chloride contains not less than 99.5 percent and not more than 100.5 percent of NH_4Cl, calculated on the dried basis.

Packaging and storage—Preserve in tight containers.

Identification—A solution (1 in 10) responds to the tests for *Ammonium* ⟨191⟩ and for *Chloride* ⟨191⟩.

pH ⟨791⟩: between 4.6 and 6.0, in a solution (1 in 20).

Loss on drying ⟨731⟩—Dry it over silica gel for 4 hours: it loses not more than 0.5% of its weight.

Residue on ignition ⟨281⟩—Add 1 mL of sulfuric acid to about 2 g, accurately weighed, and heat the mixture gently until volatilization is complete: the residue is white, and when ignited, not more than 0.1% of nonvolatile substance remains.

Limit of thiocyanate—Acidify 10 mL of a solution (1 in 10) with hydrochloric acid, and add a few drops of ferric chloride TS: no orange-red color is produced.

Assay—Transfer about 100 mg of Ammonium Chloride, accurately weighed, to a conical flask, add 10 mL of water, and swirl to dissolve. Add 10 mL of glacial acetic acid, 75 mL of methanol, and 0.5 mL of eosin Y TS. Titrate, with shaking, with 0.1 N silver nitrate VS to a pink endpoint. Each mL of 0.1 N silver nitrate is equivalent to 5.349 mg of NH_4Cl.

Auxiliary Information - Please check for your question in the FAQs before contacting USP.

Topic/Question	Contact	Expert Committee
AMMONIUM CHLORIDE	Documentary Standards Support	SM32020 Small Molecules 3
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM32020 Small Molecules 3

Chromatographic Database Information: Chromatographic Database

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