

FT-611531

Ammonium chloride

Product Information

Chemical name : Ammonium chloride, ACS grade

Syn.: sal ammonium

CAS: 12125-02-9 **EC number**: 235-186-4 EINECS: 231-420-4 +

Cat. Number: 611530, 500g

611531, 1Kg 611532, 2.5Kg

Structure: NH₄Cl

Molecular Weight: 53.49

NH₄CI

Properties: Form: white solid crystalline powder

Melting point: 338 °C (decomposes) Density: 2.20 g/cm³

Boiling point: 520°C pKa: 9.245

Refractive index (nD): 1.642

Solubility: readily soluble in water >30% w/v

Storage: Room temperature (Z)

Harmfull I

Safety: Harmfull, Irritant.

Xn, Xi LD50: LD50 (rat, oral) GHS hazard statements: H302, H319 Risk Statements: 36/37/38 GHS precautionary statements: P305+351+338 Safety Statements: 36/37/39

Applications: Suitable for many biochemistry and biotechnology applications.

Specifications

Test	Specifications
D.,	>99.5%
Purity	~99.3%
Iron (%)	0.0002
Heavy Metals (as Pb)	0.0005
Magnesium (%)	0.0005%
Phosphates (%)	0.0002%
Sulfate (%)	0.002%
Insolubles	0.0002%
Residue on ignition (%)	0.01%
pH (5%, Water)	4.5 - 5.5

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Technical information

• Chemical reactions

Ammonium chloride (salt ammoniac: natural mineralogic form) is an inorganic compound, that is highly soluble in water. Solutions of ammonium chloride are mildly acidic.

Ammonium chloride decompose upon heating into ammonia and hydrogen chloride gas:

$$NH_4Cl \rightarrow NH_3 + HCl$$

It reacts with a strong base, e.g. sodium hydroxide, and similarly, with alkali metal carbonates at elevated temperatures:

$$NH_4Cl + NaOH \rightarrow NH_3 + NaCl + H_2O$$

 $2 NH_4Cl + Na_2CO_3 \rightarrow 2 NaCl + CO_2 + H_2O + 2 NH_3$

A 5% by weight solution of ammonium chloride in water has a pH in the range 4.6 to 6.0.^[5]

Ammonium chloride solutions with ammonia are used as buffer solutions. It can be used as acidifying agent, and as an electrolyte. It also produce low temperatures in cooling baths.

Ordering information

Catalog size quantities and prices may be found at http://www.interchim.com. Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask: Uptima / Interchim; Hotline: +33(0)4 70 03 73 06

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