

**TECHNICAL DATA SHEET****Product Name:** Ammonium Bicarbonate**Chemical Formula:** NH_4HCO_3 **CAS No.:** 1066-33-7**EINECS No.:** 213-911-5**EC Number:** 213-911-5**Molecular Weight:** 79.06 g/mol**HS Code:** 28369990**Product Description**

Ammonium Bicarbonate is a white, crystalline powder with a slight ammonia odor. It decomposes upon heating into ammonia (NH_3), carbon dioxide (CO_2), and water (H_2O), making it a widely used leavening agent in the food industry and a nitrogen source in fertilizers and chemical manufacturing.

Specification (Food Grade / Industrial Grade)

Parameter	Specification	Test Method
Purity (NH_4HCO_3)	$\geq 99.2\%$	GB/T 3559 / FCC
Moisture	$\leq 0.4\%$	GB/T 6283
Residue on Ignition	$\leq 0.05\%$	GB/T 9729
Chloride (Cl^-)	$\leq 0.003\%$	GB/T 9725
Sulfate (SO_4^{2-})	$\leq 0.007\%$	GB/T 9726
Arsenic (As)	≤ 1 ppm	GB/T 5009.11
Heavy Metals (Pb)	≤ 5 ppm	GB/T 5009.12
Iron (Fe)	$\leq 0.002\%$	GB/T 3049
pH (100g/L, 25°C)	7.0 – 8.5	GB/T 9724
Appearance	White crystalline powder	Visual Inspection
Odor	Slight ammonia odor	Sensory

Applications**➤ Food Industry**

Leavening agent in biscuits, cookies, crackers (E503(ii))

Processing aid in puffed and baked goods
Used where no residual alkaline taste is acceptable

➤ **Agriculture**

Source of nitrogen in fertilizers (N content ~17%)
Effective for short-cycle crops and greenhouse use

➤ **Industrial**

Foaming agent in rubber and plastics
Blowing agent in polymers
Intermediate in pharmaceuticals, dyes, and fire extinguishers

Chemical Properties

Property	Value
Solubility in Water	17 g/100 mL (25°C)
Decomposition Temp	~36–60°C
Bulk Density	0.8 – 0.9 g/cm ³
Stability	Stable in dry conditions, decomposes in moisture and heat
pH (Solution)	Slightly alkaline

Packaging and Storage

➤ **Packaging:**

25 kg kraft paper bags with PE liner
50 kg woven PP bags (Industrial Grade)
OEM packaging available

➤ **Storage:**

Store in cool, dry, well-ventilated area
Avoid heat, moisture, and direct sunlight
Keep away from acids and oxidizers

➤ **Shelf Life:**

12 months from production date under proper storage

Safety and Handling

Avoid inhalation of dust and contact with eyes or skin
Use adequate ventilation during handling
Not flammable, but may release ammonia on decomposition
Use standard PPE (gloves, goggles, mask)
Refer to SDS for more safety details

Regulatory Information

Food Grade Standard: Conforms to FCC / GB 1887

Food Additive E-code: E503(ii)

Reach/SGS/HACCP/Kosher/Halal: Available upon request

Country of Origin: China

