



Ammonium Bicarbonate Food Grade – MSDS

1. Product Identification

Item	Details
Product Name	Ammonium Bicarbonate Food Grade
Chemical Name	Ammonium Hydrogen Carbonate
Chemical Formula	NH_4HCO_3
CAS Number	1066-33-7
E Number	E503(ii)
Molecular Weight	79.06 g/mol
Appearance	White crystalline powder
Main Use	Food leavening agent

2. Hazard Identification

Ammonium Bicarbonate Food Grade is generally considered a low-hazard material under normal handling conditions. However, dust may irritate the eyes, skin, nose, and respiratory system.

Possible effects include:

- Eye irritation
- Skin irritation after prolonged contact
- Respiratory irritation from dust
- Discomfort if swallowed in large quantities

3. Composition

Component	Concentration
Ammonium Bicarbonate	99.0–100.5%
CAS No.	1066-33-7

4. First Aid Measures

Eye Contact:

Rinse immediately with clean water for at least 15 minutes. Remove contact lenses if easy to do.

Skin Contact:

Wash affected skin with soap and water.

**Inhalation:**

Move the person to fresh air. Seek medical attention if irritation continues.

Ingestion:

Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical advice if a large amount is swallowed.

5. Fire-Fighting Measures

The product is not considered flammable.

Suitable extinguishing media should be selected according to the surrounding fire.

When strongly heated, ammonium bicarbonate may decompose and release:

- Ammonia
- Carbon dioxide
- Water vapor

Firefighters should use appropriate protective equipment in enclosed areas.

6. Accidental Release Measures

- Avoid generating dust.
- Provide adequate ventilation.
- Wear suitable personal protective equipment.
- Sweep or vacuum spilled material carefully.
- Place collected material in a suitable container.
- Prevent unnecessary release into drains or waterways.

7. Handling and Storage

Handling

- Avoid breathing dust.
- Avoid direct contact with eyes.
- Use adequate ventilation.
- Follow good hygiene practices.

Storage

Store in:



- A cool place
- A dry warehouse
- Tightly closed original packaging
- A well-ventilated area
- An area protected from heat and moisture

8. Exposure Controls / Personal Protection

Recommended protective equipment:

- Safety glasses
- Protective gloves
- Dust mask where dust levels are high
- Protective work clothing

Wash hands after handling.

9. Physical and Chemical Properties

Property	Typical Value
Appearance	White crystalline powder
Odor	Slight ammonia-like odor
Molecular Weight	79.06 g/mol
Solubility in Water	Soluble
Density	Approx. 1.58 g/cm ³
Flammability	Non-flammable
Thermal Behavior	Decomposes on heating

10. Stability and Reactivity

The product is stable under recommended storage conditions.

Avoid:

- Excessive heat
- Moisture
- Strong acids
- Strong alkalis
- Incompatible chemicals

Thermal decomposition may produce ammonia, carbon dioxide, and water vapor.



11. Toxicological Information

Dust may cause temporary irritation of the eyes, skin, and respiratory tract.

Normal food-manufacturing use should follow applicable food-safety and occupational-hygiene requirements.

12. Ecological Information

Avoid uncontrolled release of large quantities into the environment.

13. Disposal Considerations

Dispose of unused product and packaging according to local regulations.

14. Transport Information

Ammonium Bicarbonate is generally not classified as a dangerous good for standard transport when shipped under normal conditions.

15. Regulatory Information

Food-grade ammonium bicarbonate is commonly identified as **E503(ii)** for food applications.

Applicable requirements may vary by country and destination market.

16. Disclaimer

This MSDS is provided as general technical guidance only. For regulatory, transport, workplace-safety, or contractual use, always refer to the official supplier Safety Data Sheet and applicable local regulations.