



**AMMONIUM BICARBONATE
Specification Sheet**

Code: FT-PD-02

Version: 25/01/2017

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Identification

Characteristics

Chemical salt, white crystalline powder, soluble in water, insoluble in alcohol. It volatilizes quickly at 60 °C. It volatilizes slowly at room temperature if it has low humidity. It is produced by combining ammonia (NH₃) and carbon dioxide (CO₂).

Other names

Ammonium hydrogen carbonate

Ammonium acid carbonate

CAS No

1066-33-7

Chemical Formula

NH₄HCO₃

Molecular Weight (g/mol)

79.06

Commercial Presentation

Expiration Date

Physical and chemical properties

Appearance

Solid crystal powder, white or colorless, with a slight odor of ammonia.

Boiling point

Not available

Melting point

Vapor pressure

It decomposes

Thermic decomposition

Between 35 and 60 °C

Moisture percent

0.25% maximum

pH of solution at 1%

7.0- 8.0

**Solubility to 30 °C (g NH₄HCO₃/
100g H₂O)**

20



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Identification

Properties

White crystalized solid, highly soluble in water, insoluble in alcohol. It volatizes quickly with decomposition at 60 °C. It volatizes slowly at room temperature if it has low humidity. It is produced by combining ammonia (NH₃) and carbon dioxide (CO₂).

Other names

Ammonium hydrogen carbonate

Ammonium acid carbonate

CAS No

1066-33-7

Chemical FormulaNH₄HCO₃**Molecular Weight (g/mol)**

79.06

Commercial Presentation

Packed in heavy woven polypropylene sacks of 25 to 40 kg with an interior bag of high density polyethylene (HDPE).

Expiration Date

Forty five (45) days, starting from manufacturing date, this is determined by the lot.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance

White crystal powder

Color

White or colorless

Odor

Slight ammonia odor

Boiling point

Not available

Melting point

It decomposes

Vapor pressure

Not available

Vapor density

2.7

Thermic decomposition

Between 35 and 60 °C

Moisture percent

0.25% maximum

pH of solution at 1%

7.0- 8.0

**Solubility to 30 °C (g NH₄HCO₃/
100g H₂O)**

20

MICROBIOLOGICAL CHARACTERISTICS

Heterotrophic plate counts3x 10² UFC/g**Yeasts**

Less than 10 UFC/g



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Molds

Less than 10 UFC/g

PRODUCT SPECIFICATIONS

% of Ammonium bicarbonate 99.0- 100.5**% of NH₃** 20.4- 21.6**% of Carbon dioxide (CO₂)** 53.5- 56.0**Iron (ppm. max)** 40**Sulphates (ppm. max)** 70**Chlorides (ppm. max)** 70**Heavy metals (ppm. max)** 1**Arsenic (ppm. max)** 2

PACKAGING SPECIFICATIONS

Heavy laminated polypropylene sack Polypropylene tubular fabric
Woven polypropylene film**Polyethylene bag** High density polyethylene resin Samsung F 120A
Linear high density polyethylene Hanwha 3304

USES AND APPLICATIONS

Weak alkali used in the food industry in the elaboration of fine bakery as a substitute of yeast.

In cosmetic industry and leather processing, it is used for neutralizing and stabilizing pH.

In pharmaceutical industry, it is used to elaborate ammonium salt and it is also a key component of cough expectorants.

It is used as a foaming agent in elaboration of plastics and rubber.

It is used as a component in the manufacture of fungicides, fire extinguishers and cleaning products.

STORAGE AND TRANSPORT CONDITIONS

Store containers in a cool, well-ventilated area. Maintain it away from acids and alkaline metals since its mixture releases ammonia and carbon dioxide. Hazards identification.

Ammonium bicarbonate decomposes above 35 °C; it is recommended to be stored in a place with temperature below 30 °C. It must not be stored in large piles since pressure favors compacting; pile up a maximum of 1.5 tons of product. It tends to compact during storage. It can lose weight due to thermic decomposition stored under inappropriate conditions. Compaction and weight loss have no effect upon product purity

Transport is recommended under low relative humidity and temperature below 30 °C. It must not be transported with oxidizing agents or acids. It must not be transported with toxic products.