

## Product Specification

### AMMONIUM BICARBONATE F FOOD GRADE

#### AMMONIUM HYDROGEN CARBONATE (E503ii) with MAGNESIUM CARBONATE (E504)

PRD-No.: 30204131

#### 1. General

This product is produced by BASF SE, Ludwigshafen, Germany. BASF SE, Ludwigshafen, Germany is certified according to ISO 9001.

The requirements according to "FDA: Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Human Food; 21 CFR Part 117", as well as "ISO 22000:2005, ISO/TS 22002-1:2010 and additional FSSC 22000 requirements" are fulfilled.

|                |  |                               |  |
|----------------|--|-------------------------------|--|
| Appearance:    | fine, white crystals with a slight smell of ammonia                          |                               |  |
| Chemical name: | ammonium hydrogen carbonate, ammonium bicarbonate, $\text{NH}_4\text{HCO}_3$ |                               |  |
| CAS no.:       | 1066-33-7  | ammonium hydrogen carbonate   |  |
|                | 39409-82-0   | magnesium hydroxide carbonate |  |
| EINECS no.:    | 213-911-5  | ammonium hydrogen carbonate   |  |
|                | 235-192-7  | magnesium carbonate hydroxide |  |

#### 2. Properties

| Parameter                             | Unit    | Specification | Test method             |
|---------------------------------------|---------|---------------|-------------------------|
| $\text{NH}_4\text{HCO}_3$             | g/100 g | min. 99.3     | FCC-method / calculated |
| $\text{NH}_3$                         | g/100 g | min. 21.1     | calculated              |
| $\text{CO}_2$                         | g/100 g | min. 55.0     | calculated              |
| Non volatiles                         | g/100 g | max. 0.55     | FCC-method              |
| Heavy metals (as Pb)                  | mg/kg   | max. 3        | FCC-method              |
| Chloride                              | mg/kg   | max. 30       | FCC-method              |
| Sulfate                               | mg/kg   | max. 30       | FCC-method              |
| Fe                                    | mg/kg   | max. 3        | ICP/OES                 |
| As                                    | mg/kg   | max. 1        | ICP/OES                 |
| Cd                                    | mg/kg   | max. 1        | ICP/OES                 |
| Pb                                    | mg/kg   | max. 1        | ICP/OES                 |
| Hg                                    | mg/kg   | max. 0.1      | ICP/OES                 |
| Anticaking agent ( $\text{MgCO}_3$ )  | mg/kg   | max. 5500     | added                   |
| Particle size distribution (> 0.5 mm) | g/100 g | max. 1        | sieve analyses          |

Ammonium bicarbonate F Food Grade is a mixture of ammonium hydrogen carbonate (E 503 ii) and magnesium carbonate (E 504). Each fulfil separately the purity criteria for food additives set by Directive (EU) 231/2012, the Joint (FAO/WHO) Expert Committee on Food Additives (JECFA) in the Codex Alimentarius as well as the one contained in the Food Chemical Codex. They also fulfil the effective specification limits of the European and British Pharmacopoeia.

The aforementioned data shall constitute the agreed contractual quality of the product at the time of passing of risk. The data are controlled at regular intervals as part of our quality assurance program. Neither these data nor the properties of product specimens shall imply any legally binding guarantee of certain properties or of fitness for a specific purpose. No liability of ours can be derived therefrom.

