

# Safety Data Sheet

## Ammonium carbonate Food Grade (E503i)

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(30042216/SDS\_GEN\_MX/EN)

### 1. Identification

**Product identifier used on the label**

**Ammonium carbonate Food Grade (E503i)**

**Recommended use of the chemical and restriction on use**

Recommended use\*: food additive(s)

Recommended use\*: food additive(s); Raw material

Unsuitable for use: Not intended for sale to or use by the general public.

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

**Details of the supplier of the safety data sheet**

Company:

BASF Mexicana S.A. de C.V.

Av. Insurgentes Sur 975

Col. CD. De Los Deportes,

C.P. 03710 Ciudad de México

MÉXICO

Telephone: +52 55 5325 2600

**Emergency telephone number**

24 Hour Emergency Response Information

SETIQ: 1800-00-214-(Rep. Mexicana) or 55-59-15-88 (CDMX)

Telephone: +1-800-849-5204 or +1-833-229-1000

**Other means of identification**

Molecular formula:  $\{(NH)_4\}(2)CO(3)$

Chemical family: No data available.

Synonyms: Crystal Ammonia

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### 2. Hazards Identification

According to Regulation NOM-018-STPS-2015

**Classification of the product**

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Acute Tox.	4 (oral)	Acute toxicity
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute

### Label elements

Pictogram:



Signal Word:  
Warning

Hazard Statement:

H319	Causes serious eye irritation.
H302	Harmful if swallowed.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P280	Wear eye protection.
P273	Avoid release to the environment.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth
P337 + P313	If eye irritation persists: Get medical attention.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
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### Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.  
Irritating to eyes, respiratory system and skin (dust).

## 3. Composition / Information on Ingredients

### According to Regulation NOM-018-STPS-2015

ammonium hydrogencarbonate  
CAS Number: 1066-33-7  
Content (W/W): 25.0 - <= 50.0%  
Synonym: Ammonium hydrogencarbonate

ammonium carbamate  
CAS Number: 1111-78-0

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Content (W/W): 25.0 - <= 50.0%

Synonym: No data available.

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### 4. First-Aid Measures

#### Description of first aid measures

##### If inhaled:

After inhalation of decomposition products: Keep patient calm, remove to fresh air, seek medical attention.

##### If on skin:

Wash thoroughly with soap and water

##### If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

##### If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

#### Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause:, vomiting, dyspnea, nausea, coughing

#### Indication of any immediate medical attention and special treatment needed

##### Note to physician

Treatment:

After inhalation of decomposition products: Pulmonary odema prophylaxis. Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary odema.

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### 5. Fire-Fighting Measures

#### Extinguishing media

Suitable extinguishing media:  
water spray, carbon dioxide, foam

#### Special hazards arising from the substance or mixture

Hazards during fire-fighting:

ammonia, carbon dioxide,

The substances/groups of substances mentioned can be released in case of fire.

#### Advice for fire-fighters

##### Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered.

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### 6. Accidental release measures

#### **Personal precautions, protective equipment and emergency procedures**

Breathing protection required. Ensure suitable air extract/ventilation during cleaning/emptying of process machinery.

#### **Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

#### **Methods and material for containment and cleaning up**

For residues: Sweep/shovel up.

Avoid raising dust.

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### 7. Handling and Storage

#### **Precautions for safe handling**

Breathing must be protected when large quantities are decanted without local exhaust ventilation. Processing machines must be fitted with local exhaust ventilation. Avoid dust formation.

Protection against fire and explosion:

Store in a cool place. If heated the drums can burst due to pressure build-up.

#### **Conditions for safe storage, including any incompatibilities**

Segregate from nitrites and alkaline substances. Storage and transport only combined with food materials or food additives. Separate from flavoring agents.

Do not store with: Sodium nitrate, sodium nitrite

Suitable materials for containers: Aluminium, High density polyethylene (HDPE), glass, Low density polyethylene (LDPE), Stainless steel 1.4541, Stainless steel 1.4571, enamelled, rubberized

Further information on storage conditions: Keep container in a well-ventilated place. Keep container dry.

Storage stability:

Storage temperature: < 30 °C

The stated storage temperature should be noted.

Protect from temperatures above: 30 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

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### 8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

#### **Personal protective equipment**

##### **Respiratory protection:**

Wear a NIOSH-certified (or equivalent) particulate respirator.

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### Hand protection:

Chemical resistant protective gloves

### Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles).

### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

### General safety and hygiene measures:

Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. Avoid inhalation of dust. At the end of the shift the skin should be cleaned and skin-care agents applied.

## 9. Physical and Chemical Properties

Form:	crystalline, powder	
Odour:	strong, ammonia-like	
Odour threshold:	No data available., not determined	
Colour:	white	
pH value:	9 ( 100 g/l, 20 °C)	
Melting point:	The substance / product decomposes. not applicable	
Freezing point:	not applicable	
Boiling range:	Study technically not feasible., The substance / product decomposes therefore not determined.	
Boiling point:	not applicable	
Flash point:	not applicable, the product is a solid	
Flammability:	not highly flammable not flammable not self-igniting	(Regulation 440/2008/EC, A.10)
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Autoignition:	The substance / product decomposes therefore not determined.	
Vapour pressure:	69 mbar ( 20 °C) 188 mbar ( 30 °C)	
Density:	approx. 1.6 g/cm <sup>3</sup> ( 20 °C)	
Bulk density:	780 - 830 kg/m <sup>3</sup>	
Partitioning coefficient n- octanol/water (log Pow):	-2.4 - -0.47	
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	> 59 °C To avoid thermal decomposition, do not overheat.	
Viscosity, dynamic:	not applicable, the product is a solid	
Viscosity, kinematic:	not applicable, the product is a solid	

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Solubility in water: 320 g/l  
( 20 °C)  
Evaporation rate: negligible, The product is a non-volatile solid.

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## 10. Stability and Reactivity

### Reactivity

Oxidizing properties:  
not fire-propagating

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

Exothermic reaction. Reacts with nitrites. Reacts with nitrates.

### Conditions to avoid

Avoid heat. See SDS section 7 - Handling and storage.

### Incompatible materials

strong bases

### Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: ammonia, carbon dioxide

Thermal decomposition:

> 59 °C

To avoid thermal decomposition, do not overheat.

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: Of moderate toxicity after single ingestion.

#### Oral

Type of value: LD50

Species: rat

Value: > 1,800 - < 2,150 mg/kg (BASF-Test)

#### Inhalation

*Information on: ammonium hydrogencarbonate*

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*Type of value: LC50*

*Species: rat (male/female)*

*Value: > 4.74 mg/l (other)*

*Exposure time: 4.5 h*

*An aerosol was tested.*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: ammonium carbamate*

*Type of value: LC50*

*Species: rat (male/female)*

*Value: 6.6 mg/l (OECD Guideline 403)*

*Exposure time: 4 h*

*Product not examined: Value is calculated from the data of the components.*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

### Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg

No mortality was observed.

### Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Eye contact causes irritation.

*Information on: ammonium carbamate*

*Assessment of irritating effects: May cause severe damage to the eyes. Not irritating to the skin.*

*Information on: ammonium hydrogencarbonate*

*Assessment of irritating effects: Not irritating to the eyes. Not irritating to the skin. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.*

### Skin

Species: rabbit

Result: non-irritant

The product has not been tested. The statement has been derived from the properties of the individual components.

### Eye

Species: rabbit

Result: non-irritant

Method: OECD Guideline 405

### Sensitization

Assessment of sensitization: The chemical structure does not suggest a sensitizing effect.

### Aspiration Hazard

No data available.

## Chronic Toxicity/Effects

### Genetic toxicity

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Assessment of mutagenicity: No data available concerning mutagenic effects. The chemical structure does not suggest a specific alert for such an effect.

*Information on: ammonium hydrogencarbonate*

*Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture.*

*Information on: ammonium carbamate*

*Assessment of mutagenicity: Mutagenicity tests revealed no genotoxic potential. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.*

### Carcinogenicity

*Information on: ammonium hydrogencarbonate*

*Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: ammonium carbamate*

*Assessment of carcinogenicity: Did not show carcinogenic effects in animal experiments. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

### Reproductive toxicity

*Information on: ammonium hydrogencarbonate*

*Assessment of reproduction toxicity: Study scientifically not justified.*

*Information on: ammonium carbamate*

*Assessment of reproduction toxicity: Study scientifically not justified.*

### Other Information

The product has not been tested. The statement has been derived from the properties of the individual components.

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## 12. Ecological Information

### **Toxicity**

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

LC50 (96 h) 61 mg/l, *Oncorhynchus mykiss* (Flow through.)

Literature data.



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### Aquatic invertebrates

EC50 (48 h) 63.7 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Nominal concentration.

### Aquatic plants

EC50 (72 h) 75.9 mg/l (biomass), Desmodium subspicatus (DIN 38412 Part 9, static)

## Microorganisms/Effect on activated sludge

### Toxicity to microorganisms

OECD Guideline 209 aquatic

activated sludge, domestic, non-adapted/EC20 (0.5 h): 1,000 mg/l

## Persistence and degradability

### Assessment biodegradation and elimination (H2O)

Inorganic product which cannot be eliminated from water by biological purification processes. Can be oxidized to nitrate, or be reduced to nitrogen, by microorganisms.

## Bioaccumulative potential

### Bioaccumulation potential

Accumulation in organisms is not to be expected.

## Mobility in soil

### Assessment transport between environmental compartments

Adsorption to solid soil phase is not expected.

## Additional information

Other ecotoxicological advice:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

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## 13. Disposal considerations

### **Waste disposal of substance:**

Test for use in agriculture.

Dispose of in accordance with national, state and local regulations. Do not discharge into waterways or sewer systems without proper authorization.

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## 14. Transport Information

### **Land transport**

TDG

Not classified as a dangerous good under transport regulations

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### Sea transport

IMDG

Not classified as a dangerous good under transport regulations

### Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

### Further information

Specific national features of transport regulations must be observed. They are to be found in the shipping documents.

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## 15. Regulatory Information

### Federal Regulations

Not applicable

### NFPA Hazard codes:

Health: 2

Fire: 0

Reactivity: 0

Special:

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## 16. Other Information

### SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2022/10/20

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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This information is considered accurate but is not exhaustive and shall only be used as a guideline based on current knowledge of the chemical substance or mixture. Safety precautions suitable for the product must be applied.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED

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