

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1. Product identifier** Ammonium Benzoate  
**Synonyms:** Benzoic acid, ammonium salt, COTROL\*AMB  
**Chemical Abstracts Registry No:** 1863-63-4  
**REACH Registration Number:** 01-2120776387-39-0002

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Corrosion inhibitor

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

Vertellus LLC  
201 North Illinois Street, Suite 1800  
Indianapolis, Indiana 46204 USA  
1-800-344-3426

**Only Representative for EU REACH Registration:**

Vertellus Specialties UK Ltd.  
Seal Sands Road, Seal Sands  
Middlesbrough, TS2 1UB  
England  
Phone: +44 1642 546 546

**e-mail Address:** sds@vertellus.com

**1.4. Emergency telephone number** **Vertellus:** 1-800-344-3426  
**CHEMTREC (USA):** +1-800-424-9300 (collect calls accepted)  
**CHEMTREC (International):** +1-703-527-3887 (collect calls accepted)  
**NRCC (China):** +86 25 85477110

### SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture** (According to Regulation (EC) No 1272/2008, 29 CFR 1910.1200 and the Globally Harmonized System)

Acute Toxicity Oral Category 4  
Serious Eye Irritation Category 2  
Hazard Not Otherwise Classified - Combustible Dust

**2.2. Label elements**

**Hazard Symbols (Pictogram):**



**Signal Word:** Warning  
**Hazard Precautions:** H302 - Harmful if swallowed.

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H319 - Causes serious eye irritation.

Prevention Precautionary Statements: P280 - Wear protective gloves/protective clothing/eye protection/face protection.

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

Disposal Precautionary Statements: P501 - Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

### 2.3. Other hazards

Other Hazards: WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR (DURING PROCESSING).

## SECTION 3: Composition/information on ingredients

### 3.1. Substances or 3.2. Mixtures

Ingredient	CAS Number	Concentration (weight %)	EC Number	CLP Inventory/ Annex VI	EU CLP Classification (1272/2008)
Ammonium Benzoate	1863-63-4	~ 100	217-468-9	Not listed.	Acute Tox. 4; H302 Eye Irrit. 2; H319

NOTE: See Section 8 for exposure limit data for these ingredients. See Section 15 for trade secret information (where applicable).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Skin Contact:** Wash with soap and water. Get medical attention if irritation develops or persists.

**Eye Contact:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

**Inhalation:** Remove from exposure. If not breathing, give artificial respiration and call a physician.

**Ingestion:** If swallowed, contact physician or poison control center immediately. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person.

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

**Acute:** Can cause eye irritation, including redness and tearing.

**Delayed Effects:** None known.

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

**Note to Physician:** No specific indications. Treatment should be based on the judgment of the physician in response to the reactions of the patient.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

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Appropriate Extinguishing Media: Dry chemical, Carbon dioxide, Alcohol foam, Water spray

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

Hazardous Products of Combustion: Combustion will produce carbon monoxide, carbon dioxide and oxides of nitrogen.

Potential for Dust Explosion: Ammonium Benzoate was tested for dust explosion characteristics and the following results were obtained:

- minimum ignition energy: 3 - 5 mJ
- Explosion severity - 20L Sphere
  - Maximum explosion pressure (bar): 8.0
  - Maximum rate of pressure rise (bar/s): 1091
  - Kst value (bar.m/s): 296
  - Minimum ignition temperature of dust cloud: 520 - 530 °C

The MIE data suggests a high sensitivity to ignition.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling. Refer to European standards: EN1127-1, EN14491, EN14797, EN14373, and EN15089 for safe handling of and controlling explosive atmospheres in the workplace.

Special Flammability Hazards: This product is an organic solid. As such, in its finely divided form, this product has the potential to present a dust explosion hazard under certain conditions, although no dust explosion data is currently available. Handle this product in a manner that prevents dust generation and accumulation, and refer to National Fire Protection Association (NFPA) Standard 654 for further information on prevention of dust explosions.

### 5.3. Advice for firefighters

Basic Fire Fighting Guidance: Wear self-contained breathing apparatus and full protective clothing (i.e., Bunker gear). Skin and eye contact should be avoided. Normal fire fighting procedures may be used. Avoid generating dust. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuation Procedures: Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Special Instructions: See Section 8 for personal protective equipment recommendations. Remove all contaminated clothing to prevent further absorption. Decontaminate affected personnel using the first aid procedures in Section 4. Leather shoes that have been saturated must be discarded.

### 6.2. Environmental precautions

Prevent releases to soils, drains, sewers and waterways.

### 6.3. Methods and material for containment and cleaning up

Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Remove all ignition sources. Ventilate the area of spill or leak. Wear protective equipment during clean-up. Carefully scoop up and place into appropriate disposal container. After collection of material, flush area with water. Dispose of the material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Nonsparking tools should be used.

### 6.4. Reference to other sections

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Refer to section 8 for information on selecting personal protective equipment. Refer to section 13 for information on spilled product, absorbent and clean up material disposal instructions.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for Unique Hazards:** This material may present a dust explosion hazard in solid form and is sensitive to ignition by electrostatic discharge. Maintain areas below flammable vapor / explosive dust concentrations.
- Practices to Minimize Risk:** Wear appropriate protective equipment when performing maintenance on contaminated equipment. Wash hands thoroughly before eating or smoking after handling this material. Do not eat, drink or smoke in work areas. Prevent contact with incompatible materials. Avoid spills and keep away from drains. Handle in a manner to prevent generation of aerosols, vapors or dust clouds.
- Special Handling Equipment:** Not applicable.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage Precautions & Recommendations:** This product should be stored at ambient temperature in a dry, well-ventilated location. Store in a tightly closed container. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
- Dangerous Incompatibility Reactions:** Avoid contact with strong acids and oxidizing agents.
- Incompatibilities with Materials of Construction:** None known

#### 7.3. Specific end use(s)

If a chemical safety assessment has been completed an exposure scenario is attached as an annex to this Safety Data Sheet. Refer to this annex for the specific exposure scenario control parameters for uses identified in subsection 1.2.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Country	Occupational Exposure Limit
Canada - Quebec, Denmark (total dust)	10 mg/m <sup>3</sup> as an 8-hour time-weighted average
China (total dust)	8 mg/m <sup>3</sup> as an 8-hour time-weighted average
Spain (total dust)	0.5 mg/m <sup>3</sup> as an 8-hour time-weighted average
Austria (respirable fraction)	5 mg/m <sup>3</sup> as an 8-hour time-weighted average; 10mg/m <sup>3</sup> Short Term limit
France, Sweden, USA - OSHA (respirable fraction)	5 mg/m <sup>3</sup> as an 8-hour time-weighted average
Belgium, Spain, Switzerland (respirable fraction)	3 mg/m <sup>3</sup> as an 8-hour time-weighted average
Germany (respirable fraction)	1.5 mg/m <sup>3</sup> as an 8-hour time-weighted average
Hungary (respirable fraction)	6 mg/m <sup>3</sup> as an 8-hour time-weighted average

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Ireland (respirable fraction)	4 mg/m <sup>3</sup> as an 8-hour time-weighted average
USA - OSHA (total dust)	15 mg/m <sup>3</sup> as 8-hour time-weighted average

**Air Monitoring Method:** Gravimetric analysis for total particulate and respirable fraction (<10 microns).

### 8.2. Exposure controls

Also see the annex to this SDS (if applicable) for specific exposure scenario controls.

<b>Other Engineering Controls:</b>	All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
<b>Personal Protective Equipment:</b>	Impervious gloves (EN374), boots, and clothing (EN14605), chemical goggles or face shield where necessary. Where overexposures are a concern, use NIOSH-approved dust/mist respirator as necessary.
<b>Respirator Caution:</b>	Observe OSHA regulations for respirator use (29 CFR 1910.134) or equivalent guidance. Air-purifying respirators must not be used in oxygen-deficient atmospheres.
<b>Thermal Hazards:</b>	Not applicable.
<b>Environmental Exposure Controls:</b>	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance, State &amp; Odor (ambient temperature):</b>	White to off-white crystalline powder or solid with slight odor		
<b>Vapor Pressure:</b>	0.214 Pa @ 20°C	<b>Evaporation Rate:</b>	No data available
<b>Specific Gravity or Density:</b>	1.260 g/cm <sup>3</sup>	<b>Vapor Density (air = 1):</b>	No data available.
<b>Boiling Point:</b>	DECOMPOSES AT 198 °C	<b>Freezing / Melting Point:</b>	(estimated) 154 °C
<b>Solubility in Water:</b>	19.6 g/100mL @ 25°C (Soluble)	<b>Octanol / Water Coefficient:</b>	Log Kow = -0.399 @ 25°C
<b>pH:</b>	No data available.	<b>Odor Threshold:</b>	No data available.
<b>Viscosity:</b>	Not applicable.	<b>Autoignition Temperature:</b>	No data available.
<b>Flash Point and Method:</b>	Not applicable.	<b>Flammable Limits:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.	<b>Decomposition Temperature:</b>	198 °C
<b>Explosive Properties:</b>	Not explosive.	<b>Oxidizing Properties:</b>	Not an oxidizer.

### 9.2. Other information

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Not applicable.

### SECTION 10: Stability and reactivity

<u>10.1. Reactivity</u>	Not classified as dangerously reactive.
<u>10.2. Chemical stability</u>	Stable under normal conditions.
<u>10.3. Possibility of hazardous reactions</u>	Not prone to hazardous polymerization
<u>10.4. Conditions to avoid</u>	Avoid generation of dust. Elevated ambient temperatures.
<u>10.5. Incompatible materials</u>	Avoid contact with strong acids and oxidizing agents.
<u>10.6. Hazardous decomposition products</u>	Decomposition products may include carbon monoxide, carbon dioxide.; Ammonia.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute Oral LD <sub>50</sub> :	825 mg/kg (rat)
Acute Dermal LD <sub>50</sub> :	No data available.
Acute Inhalation LC <sub>50</sub> :	No data available.
Skin Irritation:	May cause slight irritation.
Eye Irritation:	Causes eye irritation.
Skin Sensitization:	Not expected to be a sensitizer.
Mutagenicity:	Negative for mutagenic activity in Ames testing and mouse lymphoma assay, both with and without metabolic activation.
Reproductive / Developmental Toxicity:	No data available.
Carcinogenicity:	This material is not listed by IARC, NTP or OSHA as a carcinogen. No test data is available that indicates this material is a carcinogen.
Target Organs:	No organs known to be damaged from exposure to this product.
Aspiration Hazard:	Based on physical properties, not likely to be an aspiration hazard.
Primary Route(s) of Exposure:	Skin contact and absorption, eye contact, and inhalation. Ingestion is not likely to be a primary route of exposure.
Most important symptoms and effects, both acute and delayed	Can cause eye irritation, including redness and tearing. Delayed Effects: None known.
Additive or Synergistic effects:	None known.

### SECTION 12: Ecological information

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<u>12.1. Toxicity</u>	EC <sub>50</sub> (24h) Daphnia > 100 mg/L EC <sub>50</sub> (72h) Desmodesmus subspicatus = 18.4 mg/L
<u>12.2. Persistence and degradability</u>	Based on environmental modeling, this material is expected to be readily biodegradable. Estimates from environmental models suggest that this material is readily biodegradable and will not persist in the environment.
<u>12.3. Bioaccumulative potential</u>	Bioconcentration is not expected to occur.
<u>12.4. Mobility in soil</u>	Expected to be mobile in soil.
<u>12.5. Results of PBT and vPvB assessment</u>	This substance is not a PBT or vPvB.
<u>12.6. Other adverse effects</u>	None known

### SECTION 13: Disposal considerations

<u>13.1. Waste treatment methods</u>	
US EPA Waste Number:	Non-Hazardous
Waste Classification: (per US regulations)	The waste may be classified as "special" or hazardous per State regulations.
Waste Disposal:	NOTE: Generator is responsible for proper waste characterization. State hazardous waste regulations may differ substantially from federal regulations. Dispose of this material responsibly, and in accordance with standard practice for disposal of potentially hazardous materials as required by applicable international, national, regional, state or local laws, and environmental protection duty of care principles. Do NOT dump into any sewers, on the ground, or into any body of water. For disposal within the EC, the appropriate classification code according to the European Community List of Wastes should be used. Note that disposal regulations may also apply to empty containers and equipment rinsates.

### SECTION 14: Transport information

*The following information applies to all shipping modes (DOT/IATA/ICAO/IMDG/ADR/RID/ADN), unless otherwise indicated:*

14.1. UN number	Not applicable	14.2. UN proper shipping name	Chemicals, n.o.s. (Ammonium Benzoate)
14.3. Transport hazard class(es)	Not applicable	14.4. Packing group	Not applicable
14.5. Environmental hazards	Not applicable		
NA Emergency Guidebook Numbers:	Not applicable	IMDG EMS:	Not applicable;
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code			Not applicable.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical Inventory Lists:	Status:		
USA TSCA:	Listed	EC / list No.:	217-468-9
Canada(DSL/NDSL):	DSL	Japan:	1-391X
Korea:	KE-02699	Australia:	Listed



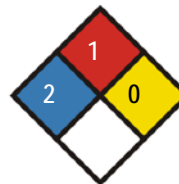
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China:	Listed	Philippines:	Listed
Taiwan:	Listed	New Zealand:	Listed
German Water Hazard Classification:	WGK 1 - low hazard to waters ( <i>self-classification</i> )		
SARA 313:	Not listed.		
Reportable Quantities:	5000 lbs. (2268 kg.)		
State Regulations:	This product contains chemicals listed on the Massachusetts Substance List for Right-to-Know Law. This product contains chemicals listed on the New Jersey Department of Health Hazard Right-to-Know Program Hazardous Substance List. This product contains chemicals listed on the Pennsylvania Department of Labor and Industry Hazardous Substance List. This product contains chemicals listed on the New York State List of Hazardous Substances.		

HMIS IV:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

NFPA:



### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed on this substance.

## SECTION 16: Other information

**Classification Method:** Bridging principle - Substantially similar mixtures  
 On basis of test data

**Legend of Abbreviations:**

ACGIH = American Conference on Governmental Industrial Hygienists.  
 CAS = Chemical Abstracts Service.  
 CFR = Code of Federal Regulations.  
 DSL/NDSL = Domestic Substances List/Non-Domestic Substances List.  
 EC = European Community.  
 EINECS = European Inventory of Existing Commercial Chemical Substances.  
 ELINCS = European List of Notified Chemical Substances.  
 EU = European Union.  
 GHS = Globally Harmonized System.  
 LC = Lethal Concentration.

LD = Lethal Dose.  
 NFPA = National Fire Protection Association.  
 NIOSH = National Institute of Occupational Safety and Health.  
 NTP = National Toxicology Program.  
 OSHA = Occupational Safety and Health Administration  
 PEL = Permissible Exposure Limit.  
 RQ = Reportable Quantity.  
 SARA = Superfund Amendments and Reauthorization Act of 1986.  
 TLV = Threshold Limit Value.  
 WHMIS = Workplace Hazardous Materials Information System.

**Important Note:** Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. The information contained herein may change without prior notice. THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS EDITIONS.

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