IDENTIFICATION

MSDS Record Number: 5617415
Product Name(s): Ammonium Carbonate
Product Identification: MSDS NUMBER: A5688
                                                     PRODUCT CODE: 0642, 0647, 0650, 0651, 3330, 3352
                                                     C.A.S. NUMBER: 506-87-6
Date of MSDS: 2005-04-15
Currency Note: This MSDS was acquired from the supplier on 2007-09-06.

MANUFACTURER/SUPPLIER INFORMATION

Company: MALLINCKRODT BAKER INC

MATERIAL SAFETY DATA

Effective Date: 04/15/05

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MSDS  MATERIAL SAFETY DATA SHEET

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From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

CHEMTREC: 800-424-9300 (USA)
703-527-3887

(Outside USA & CANADA)

CANUTEC: 613-996-6666

Emergency Telephone Number: 908-859-2151

NOTE: Use CHEMTREC and CANUTEC phone numbers only in the event of a chemical emergency.

Note: Ammonium Carbonate is not exempted from the requirements of the U.S. Department of Transportation (D.O.T.) Hazardous Materials Regulations (HMRS).

1. Product Identification
Synonyms: Carbonic Acid, Diammonium Salt; Diammonium Carbonate; Crystal Ammonia
CAS No: 506-87-6
Molecular Weight: 96.09
Chemical Formula: (NH4)2CO3
Product Codes: J.T. Baker;
               0642, 0647, 0650, 0651
Mallinckrodt:
3. Hazards Identification

Emergency Overview

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

| Health Rating: | 2 - Moderate |
| Flammability Rating: | 1 - Slight |
| Reactivity Rating: | 2 - Moderate |
| Contact Rating: | 3 - Severe |

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES

Storage Color Code: Green (General Storage)

4. First Aid Measures

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

Skin Contact:
Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention.
immediately.

5. Fire Fighting Measures
Fire:
Not considered to be a fire hazard.
Explosion:
Generation of ammonia gas may be an explosion hazard.
Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures
Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and Storage
Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Store below 30°C. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection
Airborne Exposure Limits:
For Ammonia:
- OSHA Permissible Exposure Limit (PEL) -
  50 ppm
- ACGIH Threshold Limit Value (TLV) -
  25 ppm (TWA), 35 ppm (STEL)
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.
Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded and engineering controls are not feasible, a full facepiece respirator with an ammonia/methylamine cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or
splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Colorless crystal or white powder.
Boiling Point: @ 760 mm Hg (Decomposes)

Odor: Strong ammonia-like odor.
Melting Point: 58C (136F)

Solubility: Soluble in water, decomposes in hot water
Vapor Density (Air=1): No information found.

Specific Gravity: 1.50 @ 20C/4C
Vapor Pressure (mm Hg): 760 @ 60C (140F)
1.50 @ 20C/4C
Evaporation Rate (BuAc=1): No information found.

% Volatiles by volume @ 21C (70F): 0

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. Becomes unstable upon exposure to air and converts into ammonium bicarbonate. This process liberates ammonia and carbon dioxide.

Hazardous Decomposition Products:
Burning may produce ammonia, carbon monoxide, carbon dioxide, nitrogen oxides. Contact with water or prolonged contact with air may liberate ammonia.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
Sodium hypochlorate, acids and acid salts, iron salts, zinc, alkaloids, aluminum and calomel, sodium nitrate and nitrites. Corrosive to nickel, copper and other alloys.

Conditions to Avoid:
Exposure to heat, prolonged exposure to air, contact with water, and incompatibles.

11. Toxicological Information

For Ammonium Carbonate, Oral rat LD50: 2150 mg/kg

---NTP Carcinogen---

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12. Ecological Information

Environmental Fate:
No information found.

Environmental Toxicity:
96 Hr LC50 fathead minnow: 37 mg/L

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal
regulations may differ from federal disposal regulations.
Dispose of container and unused contents in accordance with federal,
state and local requirements.

14. Transport Information
Not regulated.

15. Regulatory Information

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Chemical Weapons Convention: No
TSCA 12(b): No
SARA 311/312: Acute: Yes Chronic: No
Fire: No Pressure: No
Reactivity: No (Pure / Solid)
Australian Hazchem Code: None allocated.
Australian Poison Schedule: None allocated.
WHMIS:
This MSDS has been prepared according to the hazard
criteria of the Controlled Products Regulations (CPR) and
the MSDS contains all of the information required by the
CPR.

16. Other Information

NFFA Ratings:
Health: 2 Flammability: 0 Reactivity: 2
Label Hazard Warning:
WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.
Label Precautions:
Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.
Avoid breathing dust or vapors.
Keep container closed.
Use only with adequate ventilation.
Label First Aid:
If swallowed, induce vomiting immediately as directed by medical
personnel. Never give anything by mouth to an unconscious person. If
inhaled, remove to fresh air. If not breathing, give artificial
respiration. If breathing is difficult, give oxygen. In case of contact,
immediately flush eyes or skin with plenty of water for at least 15
minutes. Remove contaminated clothing and shoes. Wash clothing before
reuse. In all cases, get medical attention.
Product Use:
Laboratory Reagent.
Revision Information:
MSDS Section(s) changed since last revision of document include: 3, 8, 12.

Disclaimer:
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