PAGE: 1 DATE: 02/10/97 ACCT: 888235001 INDEX: D70382808 PO NBR: 2128 CAT NO: A656500 \*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\* Ammonium Carbonate 01160 \*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\* MSDS Name: Ammonium Carbonate Catalog Numbers:
A651 500, A651-500, A651500, A651J500, A652 3, A652-3, A6523, A656 3, A656 500, A656-3, A656-500, A6563, A656500, A657, A657-12, A657-212, A657-500, S79896, S79896-1, S798961 Ammonium sesquicarbonate, carbonic acid ammonium salt, crystal ammonia, diammonium carbonate.
Company Identification: Fisher Scientific

1 Reagent Lane Fairlawn, NJ 07410 For information, call: 201-796-7100 Emergency Number: 201-796-7100 For CHEMTREC assistance, call: 800-424-9300 \*\*\*\* SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\* CAS# Chemical Name EINECS# 506-87-6 Ammonium carbonate 99% 208-058-0 \*\*\*\* SECTION 3 - HAZARDS IDENTIFICATION \*\*\*\* **EMERGENCY OVERVIEW** Appearance: Hard, colorless, translucent crystals or white powder. Caution! May cause eye and skin irritation. Causes severe digestive tract irritation with pain, nausea, vomiting and diarrhea. May corrode the digestive tract with hemorrhaging and possible shock. Target Organs: None. Potential Health Effects Eye: May cause moderate eye irritation. Dust may cause mechanical May cause irritation with burning pain, itching and redness Ingestion: May cause irritation of the digestive tract. May cause perforation of the digestive tract. Inhalation: Causes respiratory tract irritation. No information found \*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\* Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Get medical aid if irritation develops or persists. Rinse area with large amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Notes to Physician: Treat symptomatically and supportively. No specific antidote exists. \*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\* General Information: General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is nonflammable.

Extinguishing Media:
For small fires, use water spray, dry chemical, carbon dioxide or apparatus from the control form. chemical foam. Autoignition Temperature: Not available Flash Point: Not available.

NFPA Rating: Not published

Explosion Limits, Lower: Not available. Upper: Not available.

INDEX: D70382808 CAT NO: A656500 PO NBR: 2128 \*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\* General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Sweep up, then place into a suitable clean, dry container for disposal. Avoid generating dusty conditions. \*\*\*\* SECTION 7 - HANDLING and STORAGE \*\*\*\* Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get on skin or in eyes. Do not ingest or Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. \*\*\*\* SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\* Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. **Exposure Limits** Chemical Name ACGIH NIOSH OSHA - Final PELs Ammonium carbonate none listed none listed none listed OSHA Vacated PELs: Ammonium carbonate: No OSHA Vacated PELs are listed for this chemical Personal Protective Equipment . Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Wear appropriate gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin Respirators:
Follow the OSHA respirator regulations found in 29CFR 1910.134. Always use a NIOSH-approved respirator when \*\*\*\* SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\* Physical State: Hard, colorless, translucent crystals or white powde Strong ammonia-like. Appearance: Odor: Not available. Vapor Pressure: Not available Vapor Density: Evaporation Rate: Negligible. Negligible Viscosity: Boiling Point: Not available Not available Freezing/Melting Point: 136.4 F
Decomposition Temperature: Not available Solubility: A Specific Gravity/Density: Appreciable. 1.5 at 68F CH8N2O3 Molecular Formula: Molecular Weight: 96.0676 \*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\* Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions. Conditions to Avoid:
Incompatible materials, exposure to air.
Incompatibilities with Other Materials: Acids, acid salts, alkaloids, alum, sodium hypochlorite, and iron/zinc salts Nitric oxide (NOx) and ammonia (NH3) fumes, oxides of carbon. Hazardous Polymerization: Has not been reported. \*\*\*\* SECTION 11 - TOXICOLOGICAL INFORMATION \*\*\*\* RTECS# CAS# 506-87-6: BP1925000 LD50/LC50: Not available.

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     Carcinogenicity:
       Ammonium carbonate -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
     Epidemiology:
Not available.
      Teratogenicity:
Not available.
      Reproductive Effects:
            Not available.
      Neurotoxicity:
Not available.
      Mutagenicity:
             Not available.
      Other Studies:
            None.
                       **** SECTION 12 - ECOLOGICAL INFORMATION ****
      Ecotoxicity
      Goldfish (fresh water) death, 24 ppm/3.5H Goldfish (fresh water) tolerated, 10 ppm/ 100H Environmental Fate:
             No information reported
      Physical/Chemical:
No information available
      Other:
             None.
                      **** SECTION 13 - DISPOSAL CONSIDERATIONS ****
Dispose of in a manner consistent with federal, state, and local regulations. RCRA D-Series Maximum Concentration of Contaminants: Not listed. RCRA D-Series Chronic Toxicity Reference Levels: Not listed. RCRA F-Series: Not listed. RCRA P-Series: Not listed.
RCRA U-Series: Not listed.

Not listed as a material banned from land disposal according to RCRA.
                       **** SECTION 14 - TRANSPORT INFORMATION ****
       US DOT
             Shipping Name: AMMONIUM CARBONATE
Hazard Class: 110
UN Number: NA9084
              Packing Group:
              No information available.
              No information available
       RID/ADR
No information available.
       No information available.

Canadian TDG
Shipping Name: AMMONIUM CARBONATE
Hazard Class: 9.2
UN Number: UN9084
Other Information: REGULATED LIMIT 230 KG
                        **** SECTION 15 - REGULATORY INFORMATION ****
 A. Federal
TSCA
           CAS# 506-87-6 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
              None of the chemicals in this product are under a Chemical Test Rule.
           Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
               None of the chemicals in this material have a SNUR under TSCA.
           Section 302 (RQ)
Section 302 (RQ)
final RQ = 5000 pounds (2270 kg)
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
            Section 313
               No chemicals are reportable under Section 313.
       Clean Air Act:

This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
CAS# 506-87-6 is listed as a Hazardous Substance under the CWA.
               None of the chemicals in this product are listed as Priority Pollutants under the CWA.
               None of the chemicals in this product are listed as Toxic Pollutants
               under the CWA.
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None of the chemicals in this product are considered highly hazardous

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by OSHA.

B. State Ammonium carbonate can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.
California No Significant Risk Level: None of the chemicals in this product are listed.

C. International

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CAS# 506-87-6 is listed on Canada's DSL/NDSL List.
CAS# 506-87-6 is not listed on Canada's Ingredient Disclosure List.
European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.

Risk Phrases: Safety Phrases

S 24/25 Avoid contact with skin and eyes.

Exposure Limits:
OEL-AUSTRALIA:TWA 2.5 mg(F)/m3. OEL-BELGIUM:TWA 2.5 mg(F)/m3. OEL-CZEC HOSLOVAKIA:TWA 1 mg(F)/m3.STEL 5 mg(F)/m3. OEL-DENMARK:TWA 2.5 mg(F)/m3. OEL-BILGIUM:TWA 2.5 mg(F)/m3. OEL-FINLAND:TWA 2.5 mg(F)/m3. OEL-FINLAND:TWA 2.5 mg(F)/m3. OEL-FINLAND:TWA 2.5 mg(F)/m3. OEL-HUNGARY:TWA 1 mg(F)/m3:STEL 2 mg(F)/m3. OEL-THE PHILIPPINES:TWA 2.5 mg(F)/m3. OEL-THE PHILIPPINES:TWA 2.5 mg(F)/m3. OEL-SUBJECT OEL-SWITZERLAND:TWA 0.2 mg/m3:STEL 1 mg/m3. OEL-SWEDEN:TWA 2 mg(F)/m3. OEL-SWITZERLAND:TWA 1.8 ppm (1.5 mg(F)/m3). STEL 9.0 ppm. OEL-THAILAND:TWA 2.5 mg(F)/m3. OEL-TURKEY:TWA 2.5 mg(F)/m3. OEL-UNITED KINGDOM:TWA 2.5 mg(F)/m3. OEL-TURKEY:TWA 2.5 mg(F)/m3. OEL-UNITED KINGDOM:TWA 2.5 mg(F)/m3. OEL IN BULGARIA, COLOMBIA, JORD AN, KOREA check ACGIH TLV. OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

\*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*

Additional Information: No additional information available.
MSDS Creation Date: 12/15/1994 Revision #3 Date: 8/14/1996

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users such information, and we assume no liability resulting from its use. User should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.