

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name:	N-Cal Calcium Nitrate, 9-0-0 11% CA		
Common Name:	Calcium Nitrate solution		
Chemical Description:	Fertilizer solution derived from calcium nitrate		
1.2 Manufactured For:	Plant Food Company, Inc. 38 Hightstown-Cranbury Station Road Cranbury, NJ 08512	Emergency Telephone Number Telephone Number for Information	609-448-0935 609-448-0935
		Date Prepared	6/1/2005

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components (Specific Chemical)

Identity: Common Name	(CAS #)	OSHA PEL	ACGIH TLV	Other Limits Recommended
Calcium Nitrate	1524512-2	N/A	N/A	N/A
Water	7732-18-5	N/A	N/A	N/A

SECTION 3: HAZARDS IDENTIFICATION

Clear Liquid with slight odor May cause eye and skin irritation. May be harmful if ingested. Not D.O.T. regulated
 NEPA: Health:1 Reactivity:0 Flammability:0 Environment:0 (0=Insignificant=1 Slight 2=Moderate 3=High 4=Extreme)

EMERGENCY OVERVIEW

Contact may cause eye irritation. Repeated/prolonged skin contact may cause irritation. Ingestion may irritate gastrointestinal tract.

3.1 POTENTIAL HEALTH EFFECTS
EYE: Contact with the eyes by product mist or solution may cause irritation or a burning sensation.
SKIN CONTACT: Prolonged or repeated contact with product mist or solution may cause skin irritation.
SKIN ABSORPTION: Absorption is unlikely to occur.
INGESTION: Ingestion of product solution may cause irritation of the gastrointestinal tract to include nausea, vomiting and diarrhea.
INHALATION: Inhalation of product mist may cause irritation of the nose, throat and respiratory tract.
CHRONIC EFFECTS/CARCINOGENICITY: Not listed as a carcinogen by NTP, IARC or OSHA.

SECTION 4: FIRST AID MEASURES

4.1 EYES: Flush immediately with plenty of water for at least 15 minutes while holding eyelids apart to ensure complete irrigation of all eye and lid tissue. If irritation occurs, seek medical attention.
4.2 SKIN: Wash with plenty of soap and water. Remove contaminated clothing and shoes under a safety shower. Get medical attention if irritation persists.
4.3 INGESTION: If conscious and alert, administer water or milk to dilute, then induce vomiting. Call Poison Control Center or physician immediately. Do not give anything by mouth to an unconscious person.
4.4 INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth and get medical attention. If heart has stopped beating, external heart massage should be applied. Obtain medical attention.

SECTION 5: FIREFIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES
FLASHPOINT: Not flammable **METHOD USED:** Closed Cup/NONCOMBUSTIBLE
5.2 FLAMMABLE LIMITS: LFL: NA UFL: NA
5.3 EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical, or water fog.
5.4 FIRE & EXPLOSIVE HAZARDS: This solution will not burn. However, high temperatures can evaporate product to dryness, leaving crystals of calcium nitrate, an oxidizing material. Calcium nitrate does not require atmospheric oxygen and an explosion may occur in the presence of combustible materials. At high temperatures this solution may release toxic fumes of carbon monoxide, nitrous oxide and other oxides.
5.5 FIRE FIGHTING EQUIPMENT: Fire fighting procedures are based on possible calcium nitrate crystallization in fire conditions. Keep unauthorized personnel away. Stay upwind. Wear full protective clothing and self-contained breathing apparatus. Carefully apply large volumes of low pressure water to cool affected containers and avoid eruptive scattering and spread of fire. Do not attempt to smother or add steam. Fight fire from greatest possible distance to protect from steam eruptions, toxic fumes, and possible explosion. Control runoff waters. Ventilate closed spaces before entering. Always stay away from the ends of tanks.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 SMALL RELEASES: Confine and absorb small releases on sand earth or other inert absorbent. Use water spray to dilute to weaken fertilizer solution.
6.2 LARGE RELEASES: Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, rains or surface waterways. Recover as much of the solution as possible. Treat remaining material as a small release (above).

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING: Avoid contact with eyes. Use only in a well ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of vapors. Avoid prolonged or repeated contact with the skin.
7.2 STORAGE: Store in original container only in a cool, well-ventilated, dry place at temperatures between 40° and 95°F. Do not store near food or feeds. Do not stack pallets more than two (2) high.
7.3 Transfer Equipment: Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1 RESPIRATORY PROTECTION: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/moist respirator (such as 3M#8710). Ventilation: Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminate

MATERIAL SAFETY DATA SHEET

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8.2 SKIN PROTECTION: Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

8.3 EYE PROTECTION: Chemical goggles and a full face shield. DO NOT WEAR CONTACT LENSES.

8.4 EXPOSURE GUIDELINES:	TWA	STEL
OSHA	N/A	N/A
ACGIH	N/A	N/A

8.5 ENGINEERING CONTROLS: Use adequate exhaust ventilation to prevent inhalation of product vapors.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE	Clear Liquid
9.2 ODOR:	slight odor
9.3 VAPOR PRESSURE:	Not Known
9.4 VAPOR DENSITY:	Not Known
9.5 SOLUBILITY IN WATER:	Complete
9.6 SPECIFIC GRAVITY (H ₂ O = 1):	1.456 @ 68°F
9.7 MELTING POINT:	
9.8 pH:	5.26
9.9 VOLATILE:	Not available
9.10 COLOR:	Green/Amber
9.11 WEIGHT PER GALLON:	10.8 lbs/Gal
9.12 STORAGE LIFE AT 70° F:	> 1 Year
9.13 PH-21C:	
9.15 VISCOSITY:	
9.16 SALT-OUT TEMPERATURE:	<23° F
9.17 EVAPORATION RATE:	Same as water
9.18 BOILING POINT:	Loses water at 212°F (100°C)

SECTION 10: STABILITY AND REACTIVITY

10.1 STABILITY: Stable under normal conditions of use and storage.

10.2 HAZARDOUS POLYMERIZATION: Not known to occur.

10.3 HAZARDOUS DECOMPOSITION PRODUCTS: Toxic nitrogen oxides will be released at high temperatures.

10.4 INCOMPATIBILITY: Not Available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 ORAL: LD₅₀ = 3900 mg/kg (oral, rat) May cause stomach cramps and/or nausea.

11.2 DERMAL: May cause slight irritation, especially from prolonged exposure. May cause redness.

11.3 INHALATION: None expected but inhalation may cause mild irritation of nasal mucous membranes.

11.4 CHRONIC/CARCINOGENICITY: Data not available

11.5 TERATOLOGY: Data not available

11.6 REPRODUCTION: Data not available

11.7 MUTAGENICITY: Data not available

11.8 EYES: May cause temporary eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Alga/Lemna Growth Inhibition: Not known.

12.2 Toxicity to Fish and Invertebrates: Not known

12.3 Toxicity to Plants: Not known

12.4 Toxicity in Birds: Not known

SECTION 13: DISPOSAL CONSIDERATIONS

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents in accordance with state and local waste disposal regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal.

SECTION 14: TRANSPORTATION INFORMATION

D.O.T.	Not D.O.T. Regulated
Other Shipping Description:	Fertilizing Compounds (Manufactured), Liquid. NMFC Item 6810 Sub 6, LTL Class 70

SECTION 15: REGULATORY INFORMATION

15.1 CERCLA: None

15.2 SARA TITLE III, Section 313 Toxic Chemicals: None

SECTION 16: OTHER INFORMATION

Not harmed by freezing, but thaw frozen fertilizer slowly and stir before using. Store in a cool place. Rotate stock in storage to use oldest first. Refer to product specifications.

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