



CHEMICAL & FERTILIZER CORPORATION

Material Safety Data Sheet

Section 1 – Chemical Product and Company Identification

Product Name: Nutrient Express® based fertilizers
Chemical Name: Mixture of soluble salts
Common Name, Synonym: Mixture of soluble salts
Material Uses: Agricultural Fertilizer
Manufacturer/Manufactured For: Miller Chemical and Fertilizer Corporation
 Phone: (717) 632-8921 FAX: (717) 646-1104 CHEMTREC: (800) 424-9300

Section 2 – Composition/Information on Ingredients

Ingredient Name	CAS Number	%
See product label for composition information		

PA Right to Know: This product contains proprietary ingredients
 This product contains the following chemicals subject to the reporting requirements of Section 13Title III of the Superfund Amendments and Reauthorization act of 1986 and 40 CFR part 372 (the corresponding CAS numbers and typical percent by weight are also provided).
 None

Section 3 – Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Primary Entry Routes: Eye and skin contact is the most likely exposure. Ingestion is possible.
Target Organs: Eyes, skin and stomach.
Potential Health Effects
Inhalation: My cause slight irritation if mist occurs.
Eye: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: Large doses may cause nausea, vomiting, and stomach pain or cramps.
Acute Effects: Irritation
Chronic Effects: Non known
Signs and Symptoms of exposure: Eye contact may produce irritation and/redness.
Medical Condition Aggravated by Long-Term Exposure: None known
Physical Hazards: Refer to MSDS section 7 for handling and storage
Signal Word: Not applicable/non-hazardous



Product Name: Nutrient Express®

Section 4 – First Aid Measures

EYE CONTACT

Immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart to ensure flushing of entire surface. Call a physician.

SKIN CONTACT

Immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse. Call a physician.

INHALATION

Remove to fresh air. If not breathing give artificial respiration, preferably mouth to mouth. If breathing is difficult give oxygen. Call a physician.

INGESTION

If swallowed, DO NOT induce vomiting. Rinse mouth with water. Dilute stomach contents by drinking water. If vomiting occurs spontaneously, keep head below hips to prevent breathing vomit into lungs. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Call a physician immediately!

Section 5 – Fire-Fighting Measures

Flash Point (METHOD):	Not Applicable
Auto-Ignition:	Not Available
Flammable Limits:	Not Available
Extinguishing Media:	Use alcohol foam, carbon dioxide, water fog, dry chemical, or halon when fighting fires involving this material.
Special Fire Fighting Procedures:	None currently known.
Unusual Fire and Explosion Hazards:	Dust in sufficient concentration can result in an explosive mixture in air. Minimize dust and open flame.
Fire Fighting Equipment:	Wear self-contained breathing apparatus and protective suit.

Section 6 – Accidental Release Measures

Personal precautions

Evacuate non-essential personnel, eliminate ignition sources, and wear protective equipment (See Section VIII). Shut off source of leak only if safe to do so. Wear respiratory equipment if exposure limits are exceeded.

Contain spill

Recover free product. To clean up residue, flush sparingly with water or use an absorbent. Avoid runoff to ground water, surface waters, and sewers. It may be necessary to remove contaminated soil. If product is flammable or combustible, use non-sparking tools. If acidity (low pH) is a problem, neutralize with hydrated lime, soda ash, or sodium bicarbonate. If alkalinity (high pH) is a problem neutralize with dilute acetic acid or dilute hydrochloric (muriatic) acid. If required, notify state and local authorities.



Product Name: Nutrient Express®

Section 6 – Accidental Release Measures *continued*

Disposal Method

Solids must be disposed of in a permitted waste management facility. Recovered liquids may be reprocessed or incinerated. Incineration must be handled in a permitted facility. Dispose of material in accordance with all Federal, State and Local regulations. Local regulations may be more stringent than Federal or State.

Section 7 – Handling and Storage

Handling: Wear protective equipment when handling. Wash thoroughly after handling. Do not get in eyes. Do not breathe vapor, mist, or dust. Avoid prolonged or repeated contact with skin. Do not swallow.

Storage: For industrial use only. Keep container closed when not in use. Store in a cool dry place. Keep out of reach of children.

Section 8 – Exposure Controls/Personal Protection

Engineering Controls:

Mechanical: Mechanical ventilation is preferred.

Respiratory Protection: If exposure limits are exceeded, or if exposure may occur, use a NIOSHA/MSHA respirator approved for your conditions of exposure. Refer to the most recent NIOSHA publications concerning chemical hazards, or consult your safety equipment supplier. Respiratory protection programs must be in compliance with OSHA requirements in 29 CFR 1910.134. For emergencies, a NIOSHA/MSHA approved positive pressure-breathing apparatus should be readily available.

Eye Protection: Chemical goggles or face shield. Always wear eye protection when working with chemicals. Never wear contact lenses when working with chemicals.

Skin Protection: Rubber gloves. Clean protective body covering, rubber apron, and rubber boots.

Work Hygienic Practices: Avoid contact with skin, eyes, and clothing. After handling this product, wash hands before eating, drinking or smoking. If contact occurs, remove contaminated clothing. If needed, take First Aid action shown in Section IV. Launder contaminated clothing before use.

Other Protective Equipment: Safety shower, eye wash fountain, and washing facilities should be readily available.



Product Name: Nutrient Express®

Section 9 – Physical and Chemical Properties

Appearance:	Solid blue crystalline granules
Odor:	Slight to Moderate
pH (aqueous approx. 5% in DW):	4.0 – 7.0 @ 20°C
Boiling point/Boiling range:	Not Applicable
Freeze Point:	Not Applicable
Flash Point:	Not Determined
Vapor Pressure (mmHg):	Not Determined
Vapor Density (Air=1):	Not Determined
Solubility in Water:	Soluble
Bulk Density:	Varies with different grades
Evaporation Rate (NA=1):	Not Determined
Percent Volatile by Volume:	Not Determined

Section 10 – Stability and Reactivity

Chemical Stability:	Stable
Incompatibility:	Strong oxidizing/reducing agents, sodium hypochlorite and strong alkalis.
Conditions to Avoid:	Extreme temperatures and wet/humid conditions.
Hazardous Decomposition or Byproducts:	No decomposition expected under normal storage conditions.
Hazardous Polymerization:	Will not occur

Section 11- Toxicological Information

Toxicity Data:

Acute Eye Irritation: May Cause Irritation	Skin Sensitization: Data not available
Acute Dermal Effects: May Cause Irritation	Acute Dermal Irritation: Data not available
Acute Oral Effects: Data not available	Mutagenicity: Data not available
Acute Inhalation Effects: May Cause Irritation	Teratogenicity: Data not available

Section 12 – Ecological Information

Ecotoxicity: Large spills could possibly damage vegetation. Contamination of waterways could possibly cause fish kills. Prevent spread and runoff into drains, storm sewers, and ditches that lead to waterways.

Aquatic Toxicity: Data not available

Environmental Fate: Data not available



Product Name: Nutrient Express®

Section 13 – Disposal Considerations

Disposal: If uncontaminated, recover and reuse as product. If contaminated with other materials, the nature and extent of contamination may require use of specialized disposal methods. Consult local, county, state, or federal regulatory agencies for acceptable disposal procedures and disposal locations

Disposal Regulatory Requirements: Consult local, county, state, or federal regulatory agencies for acceptable disposal procedures and disposal locations

Container Cleaning and Disposal: Consult local, county, state, or federal regulatory agencies for acceptable disposal procedures and disposal locations

Section 14 – Transport Information

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME:
PACKING GROUP:
HAZARD CLASS:
LABEL/PLACARD REQUIRED:
UN/NA No.:

WATER TRANSPORTATION

PROPER SHIPPING NAME:
PACKING GROUP:
HAZARD CLASS:
LABEL/PLACARD REQUIRED:
UN/NA No.:

AIR TRANSPORTATION

PROPER SHIPPING NAME:
PACKING GROUP:
HAZARD CLASS:
LABEL/PLACARD REQUIRED:
UN/NA No.:

OTHER AGENCIES:

SECTION 14 NOTES: This product is not considered a hazard



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Section 15 – Regulatory Information

EPA Regulations:

Reportable Quantity –CERCLA: Not applicable

SARA Title III (EPCRA):

Manganese as EDTA Chelated Salt	CAS# 15375-84-5	(Consult Product Label)
Copper as EDTA Chelated Salt	CAS# 14025-15-1	(Consult Product Label)
Zinc as EDTA Chelated Salt	CAS# 14025-21-9	(Consult Product Label)

RCRA Waste Code: Not applicable

State Regulations:

CA Proposition 65: Not applicable

EPA National Response Center (800) 424-8802

Section 16 – Other Information

Preparation Date: 06/12/2012

Prepared By: Miller Chemical Compliance Officer

Revision Date:

Revision Notes:

NOTICE TO READER: THE INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET (“MSDS”) RELATES ONLY TO THE SPECIFIC PRODUCT(S) DESIGNATED HEREIN (THE “PRODUCT”). THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CURRENT AND CORRECT AS OF THE DATE OF THIS MSDS, AND OBTAINED FROM SOURCES THAT ARE BELIEVED TO BE RELIABLE. HOWEVER, THIS INFORMATION IS FURNISHED WITHOUT WARRANTY, REPRESENTATIONS OR LICENSE OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO ACCURACY, CORRECTNESS, OR COMPLETENESS, AND NEITHER MILLER CHEMICAL AND FERTILIZER CORPORATION. NOR ITS MARKETING AFFILIATES (EACH, A “SELLER”) ASSUME ANY LEGAL RESPONSIBILITY FOR THE USE OR RELIANCE UPON SAME.