

# CNI AGRIMINERALS: *Material Safety Data Sheet*

CHEM-FLO 444

MSDS No. 1581

Date of Preparation: October 2012

Revision: 0

## Section 1 - Chemical Product and Company Identification

**Product:** CHEM-FLO 444

**Chemical Name:** Micronutrient Salts of Glucoheptonic Acid

**Chemical Formula:** NA

**CAS Number:** NA

**General Use:** Plant Nutrients

**Manufactured for:** CNI AGRIMINERALS, P. O. Box 3706, Albany, GA 31706, 24-Hr. Phone (229)883-5538

**CHEMTREC 1-800-424-9300**

## Section 2 - Typical Composition

Ingredients:	Percent	CAS Number
A proprietary blend of Nitrogen, Micronutrients and Glucoheptonic Acid in an aqueous solution.	>95%	-

## Section 3 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance & Odor:** Dark brown solution w/slightly sweet odor

**Vapor Pressure:** NA

**Vapor Density (Air=1):** NA

**Specific Gravity (H<sub>2</sub>O=1):** 1.290 – 1.320

**Water Solubility:** Freely Soluble

**Boiling Point:** 200 F

**Freezing Point:** Approximately 32 F

**% Volatile:** <5%

## Section 4 - Fire-Fighting Measures

**Flash Point:** NA

**Flash Point Method:** NA

**LEL:** NA

**UEL:** NA

**Flammability Classification:** NA

**Extinguishing Media:** Use extinguishing media appropriate for surrounding materials.

**Unusual Fire or Explosion Hazards:** None

**Hazardous Decomposition Products:** Metal oxides, nitrogen oxides, sulfur oxides, and volatile organics.

**Fire-Fighting Instructions:** Do not release contaminated runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce hazardous decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in positive-pressure mode.

## Section 5 - Stability and Reactivity

**Stability:** Stable under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization will not occur.

**Chemical Incompatibilities:** NA

**Conditions to Avoid:** Evaporation to dryness.

## Section 6 - Health Hazard Information

### Potential Health Effects

**Primary Entry Routes:** Inhalation (of mist), Ingestion, Eye Contact, Skin Contact (irritation)

**Acute Effects:**

**Inhalation:** May cause irritation of respiratory tract.

**Eye:** Contact may cause irritation.

**Skin:** Contact may cause irritation.

**Ingestion:** Ingestion may cause irritation of the gastrointestinal tract, cramps, vomiting, diarrhea, and may be fatal if not treated promptly.

**Carcinogenicity:** IARC, NTP, and OSHA do not list this product as a carcinogen.

**Medical Conditions Aggravated by Long-Term Exposure:** Existing skin and lung disorders may be aggravated by exposure.

**Chronic Effects:** Chronic ingestion may cause damage to heart, liver, and blood-forming tissues. Ingestion may cause headache, mental impairment, dizziness, and may be fatal.

### Emergency and First Aid Procedures

**Inhalation:** Remove from areas of mist exposure, if irritation persists, seek medical attention.

**Eye Contact:** Wash eyes immediately and thoroughly (15 minutes) with eyewash. If irritation persists, seek medical attention.

**Skin Contact:** Wash skin promptly to remove material. If irritation persists, seek medical attention.

**Ingestion:** Drink milk or large amounts of water and get medical attention immediately. If prompt medical attention is not available, call your local Poison Control Center.

## Section 7 - Spill, Leak, and Disposal Procedures

### Spill/Leak Procedures:

**Small Spills:** Absorb with sand or other inert material and dispose of in accordance with applicable regulations.

### Large Spills

**Containment:** For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

**Cleanup:** Contained materials may be salvaged for use, if uncontaminated.

**Regulatory Requirements:** Follow applicable OSHA regulations for cleanup personnel and EPA requirements for disposal.

**Disposal:** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations if material is not salvageable for use.

**Disposal Regulatory Requirements:** Follow applicable Federal, state, and local regulations.

**Container Cleaning and Disposal:** Triple rinse and use rinseate in product tank. Dispose of container per applicable regulations.

**Ecological Information:** NA

### EPA Regulations:

SARA 311/312: This product exhibits acute and chronic effects per 1910.1200 and may require reporting under SARA 311/312.

SARA 313 Toxic Chemical (40 CFR 372.65): This product contains 10.9% by weight of manganese compounds.

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed.

### OSHA Regulations:

Air Contaminant (20 CFR 1910.1000, Table Z-1): Manganese compounds: C = 5 mg/m<sup>3</sup>

Ethanolamine: PEL = 6 mg/m<sup>3</sup>

## Section 8 - Exposure Controls / Personal Protection

### Engineering Controls:

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs.

### Administrative Controls:

**Respiratory Protection:** Respiratory protection may be needed if airborne mists are created. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. *Warning! Air-purifying respirators do not protect workers in*

*oxygen-deficient atmospheres.* If respirators are required, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**Protective Clothing/Equipment:** Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133).

**Safety Stations:** Make emergency eyewash stations, emergency showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

## Section 9 - Special Precautions and Comments

**Handling Precautions:** Use in accordance with labeling instructions. Keep away from children, pets, domestic animals, and wildlife.

**Storage Requirements:** Store in properly labeled containers. Store in compatible containers.

**DOT Transportation Data (49 CFR 172.101):**  
**Not Regulated as a DOT Hazardous Material (4/98)**

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