QUEST Products Corp.: MATERIAL SAFETY DATA SHEET

Revision: 0 12-2-12 with 50% SRN MSDS No. 1627

Section 1 - Chemical Product and Company Identification

Product: 12-2-12 with 50% SRN

Chemical Name: N-P-K fertilizer solution with chelated iron

Chemical Formula: NA CAS Number: NA

General Use: Plant Nutrients

Manufactured For: Quest Products Corp., 601 Countryside Drive, Louisburg, KS 66053



601 Countryside Drive Louisburg, Kansas 66053 Ph: 913-837-3089 Fax: 913-837-5389

CHEMICAL EMERGENCIES CALL 866-309-8600

Section 2 - Typical Composition

Ingredients: Percent CAS Number

A proprietary blend Primary Plant Nutrients and Chelated Micronutrient(s)

in an aqueous solution. 100 -

Section 3 - Physical and Chemical Properties

Physical State: Liquid

Appearance and Odor: Clear light red liquid, w/slight ammonia odor.

Vapor Pressure: NA

Vapor Density (Air=1): NA

Specific Gravity (H₂O=1): 1.289 - 1.299 Water Solubility: Totally Soluble

Boiling Point: NA

Freezing Point: Store above 32 F

% Volatile: NA pH: 8.5 – 9.0

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 involved in fire.

Unusual Fire or Explosion Hazards: Ammonia (16-25%) may form flammable mixtures with air. Sulfur dioxide is a respiratory hazard.

Hazardous Decomposition Products: Ammonia, nitrogen oxides, oxides of carbon, phosphorus oxides, potassium sulfate, sulfur, sulfur oxides, and metal oxides.

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 full protective gear and a self-contained breathing apparatus (SCBA) with a full face-piece operated in positive-pressure mode.

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Section 5 - Stability and Reactivity

Stability: Stable under normal storage and handling conditions. **Polymerization:** Hazardous polymerization will not occur.

Chemical Incompatibilities: Strong oxidizers, strong acids, strong alkali

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, coughing, or difficulty breathing.

Eye: Contact may cause irritation and should be treated promptly. This product contains ingredients that are corrosive to the eyes.

Skin: Contact may cause irritation.

Ingestion: Ingestion may cause irritation of the gastrointestinal tract, cramps, vomiting, convulsions, or diarrhea.

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 of large quantities may cause headache, mental impairment, dizziness, tachycardia, 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, seek medical attention promptly.

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

Ingestion: Drink milk or large amounts of water, if conscious. Get medical attention. 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: If spilled in large quantities into water, this product may contribute to eutrophication.

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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): Not listed.

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

RCRA (Hazardous Waste Regulations): Spill events involving this product should be carefully evaluated based on RCRA regulations for Characteristic Wastes.

OSHA Regulations:

Air Contaminant (20 CFR 1910.1000, Table Z-1):

Aqueous Ammonia: PEL = 50 ppm

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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 and compatible containers. Store in cool place above 32F. Avoid storage in containers or piping systems constructed with components containing copper or zinc or their alloys, bronze, brass, aluminum, galvanized metals, lead, or mercury.

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

MSDS/Revision Date: February 21, 2007

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