



MATERIAL SAFETY DATA SHEET PRODUCT: DEFENDER

1. IDENTITY/DESCRIPTION

Identity: DEFENDER
Manufacturer: Soil & Plant Solutions LLC
23 East 675 South
Ivins, UT 84738
Internet: www.soilplantsolutions.com
Emergency Phone Number: Tel: (608) 795-4266; (608) 628-2654
Date: 1/21/13 Supersedes: 5/11/11
Material Description: BIO NUTRIENT FERTILIZER

2. HAZARDS IDENTIFICATION

Appearance: Non-combustible, brown liquid with a sweet humus odor.
Primary routes of entry: Skin contact, eye contact, ingestion and inhalation. (see section 4 below for first aid measures.) Care should be taken in handling this material to appropriate protective clothing and eye protection.
Hazardous Components: Urea
Chemical Characteristics: Humic Acids, Enzymes, Amino Acids, Biostimulants

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Analysis Total Nitrogen -2% (Nitrate nitrogen – 1%, Water soluble organic Nitrogen – 1%)
Phosphoric Acid (P₂O₅) – 8%
Soluble Potash (K₂O) – 14%

4. FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with water for a minimum of 15 minutes. If irritation persists, seek medical attention.
Skin Contact: None
Carcinogenicity: N/A
Ingestion: Potential for mild diarrhea caused by enzymatic action with stomach bacteria. If swallowed, drink one quart of water to dilute
Inhalation: None

5. FIRE FIGHTING MEASURES

Extinguishing media: Material is non-combustible. All extinguishing media can be used. Use suitable media appropriate to the surrounding fire.
Unsafe extinguishing media: None
Special exposure hazards: None
Special protective equipment: Firefighters should wear protective clothing and use equipment that is suitable for the materials involved in the surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: This product does not present any particular risk to the environment. Refer to applicable national, state and local regulations prior to washing into a sanitary drain.

Clean up methods: Materials can be swept, scooped or vacuumed into an appropriate container for safe disposal. Small spills can be also washed away with water.

7. HANDLING AND STORAGE

Handling: No danger from handling packaged material.

Storage: Store in water tight containers and avoid freezing temperatures and temperatures above 50°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: No special precautions

Eye protection: No special precautions

Skin and Body protection: Light weight protective clothing and gloves

Hygiene measures: Handle in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 105 °C

Specific Gravity (H₂O = 1): 1.0g/cm³

Vapor Pressure: 9 m-bar

Melting Point: -7°C

Vapor Density (air=1): N/A

Solubility in Water: Yes, 900 g/L

Viscosity: 60 m Pa-s (Brookfield)

Form: Liquid

pH: 7.8

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Do Not Freeze or store in areas above 50°C

Materials to avoid: None

Hazardous decomposition products: None

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Eye irritation: May cause temporary eye irritation

Skin irritation: Does Not cause skin irritation.

Sensitization: Does Not cause sensitization

Ingestion: May cause temporary discomfort

Inhalation: N/A

12. ECOLOGICAL INFORMATION

Mobility: Inert material

Persistence/Degradability: Non-degradable

Bio-accumulative potential: None

13. DISPOSAL CONSIDERATIONS

Disposal:

Dispose in accordance with local, state and national regulations. Under the Resource Conservation and Recovery Act (RCRA, 40 CFR 261. If possible recover the product, otherwise dispose of in authorized landfill or incinerate in accordance with local regulations.

14. TRANSPORTATION INFORMATION

DOT:

Not Regulated

15. OTHER INFORMATION

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