



Safety Data Sheet

SDS (formerly MSDS)

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufactured by: Green Eagle Technologies **Product name:** DEFENDER PM

Information contact: (928) 237- 1197 **Revision:** July 5, 2017

SECTION 2: COMPOSITION- INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS Number	PERCENT
d-Limonene (Citrus Oil)	138-86-3	3.0 – 12.0
Ascorbic Acid	50-81-7	0.8 – 12.0
Citric Acid	77-92-9	1.0 – 6.0
Thiamine	70-16-6	0.2 – 2.0
Non-Ionic Surfactant	9005-64-5	3.0 – 6.0
RO Water	7732-18-5	60.0 – 78.0

SECTION 3: HAZARD IDENTIFICATION

HEALTH - 0
FLAMMABILITY – 0
PHYSICAL HAZARD -0
REACTIVITY - 0

Potential acute health effects: The product and its components represent no known cumulative hazard to health or environment. The low pH of the product may represent an acidic burn hazard.

Potential chronic health effects: None Known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Procedure:

Contain, collect and reuse, if possible. Dispose of any solid waste in a manner consistent with Federal, State and local waste regulations. Consult an expert on disposal of recovered material and ensure conformity to all disposal regulations.

Personal Protection:

Respiratory Protection:	Approved NIOSH/MSHA (nuisance dust) respirator may be necessary under certain conditions where airborne contaminants may exceed exposure limits.
Eye Protection:	Wear goggles or safety glasses with side shields at all times.
Other Protective Equipment:	Impervious gloves, long sleeve pants and shirts, and protective head-wear should be worn to minimize exposure.

SECTION 7: HANDLING AND STORAGE

Storage Conditions:

The maximum recommended storage temperature for this product is 120°F. Store in a well ventilated area.

Handling Procedures:

Avoid ignition sources such as sparks and flame. Wear appropriate PPE when handling this product. No special precautionary health measures should be needed under anticipated conditions of storage or use. As a water based product, general incompatibility with hydrocarbon oils are expected. Store product at temperatures below 110 F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Information:

The use of local exhaust ventilation is recommended to control process emissions near source. Provide mechanical ventilation in confined spaces.

Respiratory Information:

A respiratory protection program meeting OSHA 29 CFR & 1910-134 and ANSI Z88. Two requirements must be followed whenever work place conditions warrant a respirator's use.

Eye Protection:

Use Chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed.

Hand Protection:

NOTE: Material may be a skin sensitizer in susceptible individuals. The gloves listed below may provide protection against direct contact. Gloves of other chemically resistant materials may not provide adequate protection:

- Butyl Rubber
- Nitrile

Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves after use. Wash hands with soap and water.

Other Protection:

Use a chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

Engineering Controls (Ventilation):

Use local exhaust ventilation with a minimum capture velocity of 150 ft. /min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of *Industrial Ventilation: A Manual of Recommended Practice*, published by the American Conference of Government Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Other Protective Equipment:

Facilities storing or utilizing this product should be equipped with an eyewash facility and safety shower

The materials contained in this product have no known health or environmental hazard potential. Protective clothing should be used to prevent direct prolonged contact with the skin. Use PPE appropriate to the handling of dilute hydrochloric (muriatic) acid solutions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Water like	Water Solubility	miscible
Appearance:	White Emulsion	Melting Point	N/A, aqueous liquid
Evaporation Rate:	Equal to water	pH: 6.8 – 7.0	Boiling Point: 212 F
Specific Gravity:	1.06 @ 77°F	Boiling Point >200°F	Melt Point <32 F
Critical Temp: N/A	Volatility: as Water	Odor: Mild-Oderless	Dispersion: Aqueous
Vapor Density: Water			

SECTION 10: STABILITY AND REACTIVITY

Stability: This product is considered stable. Hazardous polymerization will not occur.

Conditions to Avoid: Avoid extreme temperatures and open flames.

Materials to Avoid: None

Hazardous Decomposition Products: CO₂

Hazardous Polymerization Products: None

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals: None

Chronic Effects on Humans: None

Other Toxic Effects on Humans: None

Special Remarks on Toxicity to Animals: None.

Special Remarks on Chronic Effects on Humans: None.

Special Remarks on other Toxic Effects on Humans: None.

Also refer to section three for information on potential health effects.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: None Listed.

BOD5 and COD: Not available.

Products of Biodegradation: Hazardous short term degradation products are not likely.

Toxicity of the Products of Biodegradation: The products of degradation are non-toxic.

Special Remarks on the Products of Biodegradation: None

No specific ecological data are available for this product.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of this product in compliance with all applicable federal, state, and local regulations
Please refer to sections 5 and 6 for disposal and regulatory information.

SECTION 14: TRANSPORT INFORMATION

Department of Transportation (DOT) **DOT Shipping Name:** Not regulated

SECTION 15: REGULATORY INFORMATION

Chemical Inventory Lists All products are listed on TSCA and DSL

SARA (311/312) Reportable Hazardous Categories NONE

Federal and State Regulations: None

Other Regulations: Not available.

Other Classifications: WHMIS (Canada): Not controlled under WHMIS (Canada). DSCL (EEC): R36/38- Irritating to eyes and skin. HMIS (U.S.A.): p.5

Health Hazard: 0 Fire Hazard: 0 Reactivity: 0

Personal Protection: National Fire Protection Association (NFPA):

Health: 1 Flammability: 0 Reactivity: 0

Specific hazard: Water vapor expansion under extreme heat.

Protective Equipment: Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

SECTION 16: OTHER INFORMATION

The data presented here relates only to the product in use as designated and in relation to other materials.

References: N/A **Other Special Considerations:** N/A **Created:** 7/6/2017 **Last Updated:** 07/6/2017