

SAFETY DATA SHEET

Version3
11/2017

1. Identification of the Substance / Preparation and of the Company / Undertaking

Product Name: Green-Gard Hay Preservative
Recommended Use Industrial, Agricultural, Manufacturing or Laboratory use.
MANUFACTURED BY: HARVEST TEC, INC., PO Box 63, Hudson, WI 54016 (715)386-9100

Emergency Telephone
Chemtrec 800-424-9300 or 703-527-3887

2. Hazards Identification

GHS - Classification

Chronic aquatic toxicity	Category 3
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Signal Word: DANGER

Hazard Statements:

- Harmful to aquatic life with long lasting effects

Physical Hazards

- None

Precautionary Statements:

- Avoid release to the environment
- Dispose of contents/ container to an approved waste disposal plant

3. Composition / Information on Ingredients

Hazardous

Chemical Name	CAS No	Weight-%	EC No
Citric acid	77-92-9	< 1	Present
Propionic acid	79-09-4	30-40	201-176-3
Propanoic acid, ammonium salt	17496-08-1	30-40	241-503-7

Non-Hazardous

Chemical Name	CAS No	Weight-%	EC No
D-Sorbitol	50-70-4	<1	200-061-5
Water	7732-18-5	Balance	231-791-2

4. First Aid Measures

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact: Immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Seek immediate medical attention/advice.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention/advice.

Ingestion: Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur.

Note to Physicians: Treat symptomatically.

Green-Gard Hay Preservative

5. Fire-fighting Measures

Flammable Properties:

Not considered to be a fire hazard

Explosive Properties:

Not considered to be an explosion hazard

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment, Dry chemical, Carbon Dioxide (CO₂), water spray or alcohol-resistant foam

Unsuitable Extinguishing Media:

No information available

Protective Equipment and Precautions for Firefighters:

In the event of a fire, wear full protective clothing and MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus with full facepiece operated in the pressure-demand or other positive pressure mode

6. Accidental Release Measures

Personal Precautions:

Evacuate personnel to safe areas. Ventilate affected area. Use personal protection recommended in Section 8.

Environmental Precautions:

Do not allow into any sewer, on the ground or into any body of water. Prevent further leakage or spillage if safe to do so.

Methods for Containment:

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Methods for Cleaning Up:

Neutralize with alkaline material (soda ash, lime). Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Other Information:

Extremely slippery when spilled.

7. Handling and Storage

Advice on Safe Handling:

Avoid contact with skin, eyes or clothing. Use only with adequate ventilation.

Storage Conditions:

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from any source of heat or ignition. Keep away from incompatible substances.

Incompatible Materials:

Oxidizing agents; Strong bases

8. Exposure Controls / Personal Protection

Chemical Name	ACGIH TLV		OSHA PEL		Ontario TWA	
Propionic acid	TWA: 10 ppm		(vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m ³		TWA: 10 ppm	
Chemical Name	European Union	China	Japan	Korea	Australia	Taiwan
Propionic acid	TWA 10 ppm TWA 31 mg/m ³ STEL 20 ppm STEL 62 mg/m ³	TWA: 30 mg/m ³ STEL: 60 mg/m ³		STEL: 15 ppm STEL: 45 mg/m ³ TWA: 10 ppm TWA: 30 mg/m ³	10 ppm 30 mg/m ³	TWA: 10 ppm TWA: 30 mg/m ³

Engineering Controls:

Ensure adequate ventilation, especially in confined areas

Personal protective equipment (PPE)**Eye/Face Protection:**

Face protection shield. Tight sealing safety goggles.

Body Protection:

Wear protective gloves and protective clothing. Protective shoes or boots.

Respiratory Protection:

Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Green-Gard Hay Preservative

General Hygiene Considerations:

Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State:	Liquid	Odor:	Slightly pungent
Appearance:	No information available	Odor Threshold:	No information available
Color:	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks •Method</u>
pH:	6.0	pH Range is 5-6 as-is.
"Salt Out" Point (°F):		No information available
Melting Point/Freezing Point:		No information available
Boiling Point/Boiling Range:		No information available
Flash Point:		No information available

Evaporation Rate (BuAc=1):		No information available
Flammability (solid, gas):		No information available
Flammability Limits in Air:		No information available
Upper Flammability Limit:		Lower Flammability Limit:
Vapor Pressure (mm Hg) :		No information available
Vapor density (Air =1)		No information available
Specific Gravity (H₂O=1):		No information available
Specific Gravity (2nd value):	1.06	No information available

Water Solubility:		No information available
Solubility(ies):		No information available
Partition Coefficient (n-octanol/water)		No information available
Autoignition Temperature:		No information available
Decomposition Temperature:		No information available

Kinematic Viscosity:		No information available
Dynamic Viscosity:		No information available
Oxidizing Properties:	No information available	

Explosive Properties: Not considered to be an explosion hazard

9.2. Other information

Softening Point:	No information available
Molecular Weight:	No information available
VOC Content(%):	No information available
Density:	No information available
Bulk Density:	No information available

10. Stability and Reactivity

Stability:	Stable under normal conditions of use and storage
Conditions to Avoid:	Heat, flames and sparks; Ignition sources; Incompatible Materials:
Incompatible Materials:	Oxidizing agents, Strong bases
Hazardous Decomposition Products:	None under normal use conditions

Green-Gard Hay Preservative

Possibility of Hazardous Reactions: None under normal processing

11. Toxicological Information

Green-Gard Hay Preservative

PRODUCT INFORMATION

Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

Chemical Name	Oral LD ₅₀ :	Dermal LD ₅₀ :	LC ₅₀ (Lethal Concentration):
D-Sorbitol	15900 mg/kg (Rat)		
Citric acid	3 g/kg (Rat)		
Water	90 mL/kg (Rat)		
Propionic acid	2600 mg/kg (Rat)		
Propanoic acid, ammonium salt	2000 mg/kg (Rat)	200 mg/kg (Rabbit)	5.4 mg/L (Rat) 4 h

Chronic Toxicity:

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP

12. Ecological Information

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Harmful to aquatic life with long lasting effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Citric acid		1516: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static	
Propionic acid	45.8: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 43: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	1: 96 h <i>Pimephales promelas</i> mg/L LC50 static 73 - 99.7: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 51: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	
Propanoic acid, ammonium salt		562: 96 h <i>Leuciscus idus</i> mg/L LC50 static	

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Mobility: No information available.

Chemical Name	Partition Coefficient:
Citric acid	-1.72
Propionic acid	0.33

13. Disposal Considerations

Waste from Residues/Unused Products: Disposal should be in accordance with applicable regional, national and local laws and regulations

Green-Gard Hay Preservative

14. Transport Information

DOT
Description Not DOT Regulated

International Inventories

15. Regulatory Information

AICS Complies
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS -
IECSC Complies
KECL Complies
PICCS Complies

Chemical Name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
D-Sorbitol	Listed	Listed	Listed	-	Listed	-	(8)-50	Listed	KE-31708	Present
Citric acid	Listed	Listed	Listed	-	Listed	-	Present	Listed	Present	Present
Water	Listed	Listed	Listed	-	Listed	-	-	Listed	KE-35400	Present
Propionic acid	Listed	Listed	Listed	-	Listed	-	(2)-602	Listed	KE-29352	Present
Propanoic acid, ammonium salt	Listed	Listed	NDSL Listed	Present	Listed	-	-	Listed	KE-29353	Present

Inventory Legend

AICS - Australian Inventory of Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

RESTRICTIONS - REACH TITLE VII No information available

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	CERCLA Hazardous Substances and the Reportable Quantities	SARA Extremely Hazardous Substances EPCRA RQ	SARA Extremely Hazardous Substances TPQ
Propionic acid	5000 lb 2270 kg	-	-

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic health hazard No
Fire hazard Yes
Sudden release of pressure hazard No
Reactive hazard No

U.S. State Right-to-Know Regulations

Green-Gard Hay Preservative

California Proposition 65:

This product does not contain any Proposition 65 chemicals

16. Other Information

National Fire Protection Association (NFPA) Ratings



Prepared By: HSE Department
Issue Date: 16-May 2012
Revision Date: 03-Nov 2017
Revision Note: Updated section(s) 1,2 and 3

Disclaimer:

Please be advised that it is your responsibility to inform your employees of the hazards of this substance, to advise them of what these properties mean and be sure they understand exposure information. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication.

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. No warranty or guaranty, express or implied, is made regarding performance, stability, or otherwise. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, and storage. Other factors may require additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, the handling and use remains the responsibility of the consumer. No suggestions are intended as, and should not be constructed as, a recommendation to infringe on any existing patents or to violate any Federal, State, or local laws.

End of Safety Data Sheet