

# SAFETY DATA SHEET

Version 3  
11/2017

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

**Product Name:** Green-Gard Hay Preservative  
**Synonyms:** Hay Treatment  
**Recommended Use:** Animal feed, animal pharmaceutical, agriculture applications  
**Company Name:**  
HARVEST TEC, INC., PO Box 63, Hudson, WI 54016 (715) 386-9100

**Emergency Telephone:**  
CHEMTREC: 1-800-424-9300 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	201-069-1
Propanoic acid, ammonium salt	17496-08-1	30-40	241-503-7
Propionic acid	79-09-4	30-40	201-176-3

### Non-Hazardous

Chemical Name	CAS No	Weight-%	EC No
Water	7732-18-5	Balance	231-791-2
PEG 400 Mono and Di-oleate	9004-96-0	<1	500-015-7

## 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:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

**Inhalation:** Move to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Immediate medical attention is required. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

## Green-Gard Hay Preservative - Canada

**Note to Physicians:** Treat symptomatically.

### 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:**

Water spray, Carbon Dioxide (CO<sub>2</sub>), dry chemical, alcohol foam, Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures

**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 in 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 in properly labeled containers. Keep away from any source of heat or ignition.

**Incompatible Materials:**

Strong acids and bases; Oxidizing agents

### 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 <sup>3</sup>		TWA: 10 ppm	
Chemical Name	European Union	China	Japan	Korea	Australia	Taiwan
Propionic acid	TWA 10 ppm TWA 31 mg/m <sup>3</sup> STEL 20 ppm STEL 62 mg/m <sup>3</sup>	TWA: 30 mg/m <sup>3</sup> STEL: 60 mg/m <sup>3</sup>		STEL: 15 ppm STEL: 45 mg/m <sup>3</sup> TWA: 10 ppm TWA: 30 mg/m <sup>3</sup>	10 ppm 30 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 30 mg/m <sup>3</sup>

**Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

**Engineering Controls:**

Ensure adequate ventilation, especially in confined areas

**Personal protective equipment (PPE)**

**Eye/Face Protection:** Tight sealing safety goggles. Face protection shield.  
**Body Protection:** Gloves made of plastic or rubber. Suitable protective clothing. Rubber boots. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate.

**General Hygiene Considerations:**  
 Wash contaminated clothing before reuse.

**9. Physical and Chemical Properties**

**9.1. Information on basic physical and chemical properties**

<b>Physical State:</b>	Liquid	<b>Odor:</b>	Pungent
<b>Appearance:</b>	No information available	<b>Odor Threshold:</b>	No information available
<b>Color:</b>	No information available		

Property	Values	Remarks • Method
pH:	6.0	
"Salt Out" Point (°F):		No information available
Melting Point/Freezing Point:		
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:		<b>Lower Flammability Limit:</b>
Vapor Pressure (mm Hg) :		No information available
Vapor density (Air =1)		No information available
Specific Gravity (H <sub>2</sub> O=1):	1.06	No information available
Specific Gravity (2nd value):		No information available
Water Solubility:		No information available
Solubility(ies):		No information available
Partition Coefficient (n-octanol/water)		No information available
Autoignition Temperature:		
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**

<b>Softening Point:</b>	No information available
<b>Molecular Weight:</b>	No information available
<b>VOC Content(%):</b>	No information available
<b>Density:</b>	1.06
<b>Bulk Density:</b>	No information available

**10. Stability and Reactivity**

<b>Stability:</b>	Stable under normal conditions of use and storage
<b>Conditions to Avoid:</b>	Exposure to air or moisture over prolonged periods
<b>Incompatible Materials:</b>	Strong acids and bases, Oxidizing agents
<b>Hazardous Decomposition Products:</b>	Thermal decomposition can lead to release of irritating and toxic gases and vapors

Possibility of Hazardous Reactions: None under normal processing

**11. Toxicological Information**

**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 <sub>50</sub> :	Dermal LD <sub>50</sub> :	LC <sub>50</sub> (Lethal Concentration):
Citric acid	3 g/kg ( Rat )		
Water	90 mL/kg ( Rat )		
Propanoic acid, ammonium salt	2000 mg/kg ( Rat )	200 mg/kg ( Rabbit )	5.4 mg/L ( Rat ) 4 h
Propionic acid	2600 mg/kg ( Rat )		

**Chronic Toxicity:**

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

**Target Organ Effects:** Eyes, Respiratory system, Skin

**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	
Propanoic acid, ammonium salt		562: 96 h <i>Leuciscus idus</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	

**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**

**Green-Gard Hay Preservative - Canada**

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

**Contaminated Packaging:** Do not reuse container.

**14. Transport Information**

**DOT**  
Description Not DOT Regulated

**15. Regulatory Information**

**International Inventories**

All of the components in the product are on the following Inventory lists: Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP),  
This product contains a substance not listed on international inventories - it is for research and development use only.

**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
Citric acid	Listed	Listed	Listed	-	Listed	-	Present	Listed	Present	Present
Water	Listed	Listed	Listed	-	Listed	-	-	Listed	KE-35400	Present
PEG 400 Mono and Di-oleate	Present	XU	Present	-	-	-	(7)-88 (7)-319 (7)-1392	Present	KE-27609	Present
Propanoic acid, ammonium salt	Listed	Listed	NDSL Listed	Present	Listed	-	-	Listed	KE-29353	Present
Propionic acid	Listed	Listed	Listed	-	Listed	-	(2)-602	Listed	KE-29352	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
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## Green-Gard Hay Preservative - Canada

Propionic acid	5000 lb 2270 kg	-	-
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### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Propanoic acid, ammonium salt	1.0

### SARA 311/312 Hazard Categories

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

### U.S. State Right-to-Know Regulations

#### 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:	Reviewed and Re-issued.

**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.

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**End of Safety Data Sheet**

Net Weight LB	1 LB
Net Weight KG	0.45 KG
Net Weight Gal.	0.11 GA
Net Weight L	0.43 LT
Secondary Description	Bulk

**Ingredients**

**This Product Freezes at (°F):** -11

**IATA**

**TDG**

**MEX**

TB List 2	W
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