



SAFETY DATA SHEET

1. Identification

Product identifier	Hemicell HT-L Feed Enzyme for Poultry and Swine
Other means of identification	
Item Code	AG1315, QA543X
Synonyms	Hemicell® HT-L Feed Enzyme for Poultry and Swine * Hemicell® HT (Liquid) * Hemicell® HT Liquid * Hemicell®-HT-L * Hemicell®-HT * Hemicell® HT
Recommended use	Feed Enzyme; zootechnical feed additive.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Company Name	Elanco Animal Health 2500 Innovation Way Greenfield, IN 46140 US
Phone:	1-877-Elanco1 (1-877-352-6261)
Email:	lilly_msds@lilly.com
Emergency Telephone Numbers:	Elanco Product Technical Support / Human or Animal Exposure Reporting: 1-888-545-5973
Transportation Emergency Telephone:	CHEMTREC: 1-800-424-9300 (Outside U.S. 1-703-527-3887)

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Sensitization, respiratory	Category 1
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger	
Hazard statement		
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Precautionary statement		
Prevention		
P260	Do not breathe dust/mist/vapors.	
P284	In case of inadequate ventilation wear respiratory protection.	
Response		
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.	
Storage	Not available.	
Disposal		
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Liquid bacillus lentus fermentation product (β -Mannanase)		37288-54-3	2

Composition comments Remaining components of this product are non-hazardous and/or are present at concentrations below reportable levels.

4. First-aid measures

Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Get medical attention immediately.
Skin contact	Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
Eye contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion	Give several glasses of water. Never give anything by mouth to a victim who is unconscious or is having convulsions. Call a physician or poison control center immediately.
Most important symptoms/effects, acute and delayed	May cause allergic respiratory reaction.
General information	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

5. Fire-fighting measures

Suitable extinguishing media	Water. Carbon dioxide (CO ₂). Dry chemical.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Hazardous decomposition products formed under fire conditions.
Special protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective clothing.
General fire hazards	None known.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear suitable protective clothing, gloves and eye/face protection. Avoid inhalation of vapors or mists. See Section 8 of the SDS for Personal Protective Equipment.
Methods and materials for containment and cleaning up	Small Spillages: Use absorbent/adsorbent material to solidify liquids. Clean up promptly by sweeping or vacuum. Large Spillages: Prevent further migration into the environment. Use absorbent/adsorbent material to solidify liquids. Collect in a non-combustible container for prompt disposal. Local authorities should be advised if significant spillages cannot be contained.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent spilled material from flowing onto adjacent land or into streams, ponds, or lakes.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Avoid release to the environment. Use personal protective equipment as required.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a cool and well-ventilated place. Avoid contact with oxidizing agents. Do not store in open or unlabelled containers.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	Lilly Interim Exposure Guideline: <100 micrograms/m ³ TWA 12 hour (beta-D-mannanase)
Appropriate engineering controls	Laboratory fume hood or local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear goggles/face shield.
Skin protection	
Hand protection	Chemical resistant gloves.
Other	Chemical-resistant gloves and impermeable body covering to minimize skin contact.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the respirator.
Thermal hazards	Not available.
General hygiene considerations	<p>In a manufacturing setting, wear chemical-resistant gloves and body covering to minimize skin contact. If handled in a ventilated enclosure, as in a laboratory setting, respirator and goggles or face shield may not be required. Safety glasses are always required.</p> <p>Under normal use and handling conditions, wear goggles to protect eyes and wear impermeable gloves and protective equipment to avoid direct contact with skin. Wash thoroughly with soap and water after handling.</p>

9. Physical and chemical properties**Appearance**

Physical state	Liquid.
Form	Liquid.
Color	Light brown.
Odor	Slight fermentation
Odor threshold	Not available.
pH	6 - 7.5
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.

Solubility(ies)

Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

Other information

Density	1145.00 - 1200.00 lb/ft³
Explosive properties	Not explosive.
Oxidizing properties	No oxidizing properties.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions.

11. Toxicological information

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Liquid bacillus lentus fermentation product (β -Mannanase) (CAS 37288-54-3)		

Acute

Inhalation

LC	Rat	> 4.95 mg/l, 4 h No mortality.
----	-----	--------------------------------

Oral

LD	Rat	> 5 g/kg No mortality.
----	-----	------------------------

Skin corrosion/irritation

Rabbit: No irritation
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Slightly irritating to the eyes of rabbits.
Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

Respiratory sensitization

May cause sensitization by inhalation.

Skin sensitization

Local Lymph Node Assay (LLNA): Did not cause sensitization on laboratory animals.
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Results in genetic toxicity assays (in vitro): Negative (B-D-Mannanase)
Due to inconclusive data the classification is not possible.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Based on available data, the classification criteria are not met.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

Due to lack of data the classification is not possible.

Specific target organ toxicity - single exposure

No significant target organ toxicity reported.
Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure

No significant target organ toxicity reported.
Based on available data, the classification criteria are not met.

Aspiration hazard

Not applicable.

Chronic effects

No significant target organ toxicity reported.

12. Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
-------------	--

Components	Species	Test Results
Liquid bacillus lentus fermentation product (β -Mannanase) (CAS 37288-54-3)		
<u>Aquatic</u>		
<u>Acute</u>		
Algae	ErC50	Algae (<i>Pseudokirchneriella subcapitata</i>) > 100 mg/l, 72 h

Components	Species	Test Results
Crustacea	EC50 Daphnia magna	> 100 mg/l, 46 h
Fish	LC50 Rainbow Trout	> 100 mg/l, 96 h
Persistence and degradability	The active ingredient, an enzyme, does not persist but is naturally broken down into smaller compounds and excreted.	
Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.	
Mobility in soil	No data available.	
Other adverse effects	Not available.	

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. Do not allow this material to drain into sewers/water supplies.
Waste from residues / unused products	Not available.
Contaminated packaging	Not available.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
CERCLA/SARA Hazardous Substances - Not applicable.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 11-13-2014

Revision date 06-20-2017

Version # 03

Lilly Lab Code Health: 1
Fire: 1
Reactivity: 0
Special 1: A

Disclaimer As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:

Elanco Animal Health

0011+1-877-352-6261

0011+1-800-428-4441

Revision information Composition / Information on Ingredients: Undisclosed Ingredient Statement
Composition/information on ingredients: Composition comments
Physical & Chemical Properties: Multiple Properties
GHS: Classification