SAFETY DATA SHEET

1. Identification

Product identifier

Hemicell HT 1.5X Feed Enzyme for Poultry and Swine

Other means of identification

Item Code

AG3312

Synonyms

Hemicell-HT 1.5X * Hemicell-HT Feed Enzyme for Poultry and Swine * Hemicell HT-D 1.5X

Recommended use

Feed Enzyme; zootechnical feed additive.

Recommended restrictions

None known.

Manufacturer/Importer/Supplier/Distributor information **Manufacturer**

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

Serious eye damage/eye irritation

Category 2B

Sensitization, respiratory

Category 1

Sensitization, skin

Category 1

OSHA defined hazards

Combustible dust

Label elements



Signal word

Danger

Hazard statement

May form combustible dust concentrations in air.

H317

May cause an allergic skin reaction.

H320

Causes eye irritation.

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement

Prevention

P261

Avoid breathing dust/fume/gas/mist/vapors/spray.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P285

In case of inadequate ventilation wear respiratory protection.

Response

P304 + P341

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position

1.1 / 1 / / 1. /

comfortable for breathing.

P342 + P311

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P333 + P313

If skin irritation or rash occurs: Get medical advice/attention.

Storage

Not available.

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SDS US 1/7

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	%
Dried Bacillus lentus fermentation solubles (beta-D-mannanase)		37288-54-3	3
Linseed Meal Solvent Extracted		N/A	58
Mineral Oil, technical grade white oil MINE	RAL OIL	8012-95-1	1
Other components below reportable levels			38

Composition comments

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

4. First-aid measures

Inhalation

If experiencing respiratory symptoms: Get medical attention.

Skin contact

Eye 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.

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

Eye irritation. May cause allergic respiratory and skin reactions.

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

Unsuitable extinguishing

media

Water. Carbon dioxide (CO2). Dry chemical.

None known.

Specific hazards arising from

the chemical

Hazardous decomposition products formed under fire conditions.

Special protective equipment

firefighters

and precautions for

General fire hazards

Wear self-contained breathing apparatus and protective clothing.

Dust may form explosive mixture with air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection. Avoid inhalation of dust, See Section 8 of the SDS for Personal Protective Equipment.

Methods and materials for containment and cleaning up

Small Spillages:

Do not sweep. Vacuum material with appropriate dust collection filter in place. Be aware of potential for dust explosion when using electrical equipment. If vacuum is not available, lightly mist/wet material and remove by mopping or wet wiping.

Large Spillages:

Prevent further migration into the environment, Remove sources of Ignition, Collect In a non-combustible container for prompt disposal. Local authorities should be advised if significant spillages cannot be contained.

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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

Minimize dust generation and accumulation. Keep away from heat and sources of ignition. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures. Keep away from moisture. Avoid contact with oxidizing agents. Do not store in open or unlabelled containers.

8. Exposure controls/personal protection

Exposure guidelines

Lilly Interim Exposure Guideline: <100 micrograms/m3 TWA 12 hour (beta-D-mannanase)

Occupational exposure limits

US. ACGIH Thre	shold	Limit	Values
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Components	Туре	Value	Form
Mineral Oil, technical grade white oil (CAS 8012-95-1)	TWA	5 mg/m3	Inhalable fraction.
110.0011.			

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Mineral Oil, technical grade white oil (CAS 8012-95-1)	PEL.	5 mg/m3	Mist,

US. NIOSH: Pocket Guide to Chemical Harrande

Components	emical Hazards Type	Value	Form	
Mineral Oil, technical grade white oil (CAS 8012-95-1)	STEL	10 mg/m3	Mist.	
	TWA	5 mg/m3	Mist.	

Biological limit values

No biological exposure limits noted for the ingredient(s).

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

Other

Chemical-resistant gloves and impermeable body covering to minimize skin contact. Chemical-resistant gloves and impermeable body covering to minimize skin contact.

Respiratory protection

In case of inadequate ventilation, use respiratory protection. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor.

Thermal hazards

Not available.

General hygiene considerations

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.

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.

9. Physical and chemical properties

Appearance

Physical state Solid. **Form** Solid. Color Light brown. Odor Plant meal **Odor threshold** No data available. No data available.

Melting point/freezing point Initial boiling point and

No data available. No data available.

boiling range

Flash point

Evaporation rate

Flammability (solid, gas)

No data available.

No data available.

No test data available.

Upper/lower flammability or explosive limits

Flammability limit - lower

er No data available.

(%)

Flammability limit -

upper (%)

No data available.

Explosive limit - lower

(%)

No data available.

Explosive limit - upper

(%)

No data available.

Vapor pressureNo data available.Vapor densityNot available.Relative densityNo data available.

Solubility(ies)

Solubility (water)
Partition coefficient
(n-octanol/water)

Very slight

Not available.

Auto-ignition temperature No data available.

Decomposition temperature No data available.

Viscosity No data available.

Other information

Density 37.00 - 56.00 lb/ft³ (0.6 to 0.9 g/cc3)

Explosive properties Not explosive

Oxidizing properties No oxidizing properties.

Potential for dust No data available.

explosion

10. Stability and reactivity

Reactivity Not available.

Chemical stabilityMaterial is stable under normal conditions. **Possibility of hazardous**Hazardous polymerization does not occur.

reactions

Conditions to avoid

None known.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition

Hazardous decomposition products formed under fire conditions.

products

11. Toxicological information

Information on toxicological effects

Acute toxicity Based or

Based on available data, the classification criteria are not met.

Components Species Test Results

Chronic

Oral

NOAEL

Rat

Dried Bacillus lentus fermentation solubles (beta-D-mannanase) (CAS 37288-54-3)

> 75 mg/kg, 90 days (equivalent to

>1000X commercial dose)

Skin corrosion/irritation Serious eye damage/eye

on

Rabbit: No skin irritation. (Hemicell HT)
Rabbit: Irritating to eyes. (Hemicell HT)

irritation

Respiratory or skin sensitization

Respiratory sensitization

May cause sensitization by inhalation.

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Skin sensitization Local Lymph Node Assay (LLNA): May cause sensitization by skin contact. (Hemicell HT)

Germ cell mutagenicity Results in genetic toxicity assays (in vitro): Negative (beta-D-mannanase)

Based on available data, the classification criteria are not met.

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

Mineral Oil, technical grade white oil (CAS 8012-95-1) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Due to lack of data the classification is not possible.

Specific target organ toxicity No significant target organ toxicity reported.

Based on available data, the classification criteria are not met. - single exposure

Specific target organ toxicity No significant target organ toxicity reported.

Based on available data, the classification criteria are not met. repeated exposure Aspiration hazard

Due to lack of data the classification is not possible. **Chronic effects** No significant target organ toxicity reported.

12. Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms.

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.

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 This substance/mixture is not intended to be transported in bulk. Annex II of MARPOL 73/78

and the IBC Code

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 listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - No Fire Hazard - Yes 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

Not regulated.

(SDWA)

US state regulationsCalifornia 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,

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Mineral Oil, technical grade white oil (CAS 8012-95-1)

US, New Jersey Worker and Community Right-to-Know Act

Mineral Oil, technical grade white oil (CAS 8012-95-1)

US. Pennsylvania Worker and Community Right-to-Know Law

Mineral Oil, technical grade white oil (CAS 8012-95-1)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region

Canada	Domestic Substances List (DSL)	NO	
Canada	Non-Domestic Substances List (NDSL)	No	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No	
#A IN/and indicates that all components of this product comply with the inventory requirements administrated by the components of this product comply with the inventory requirements administrated by the components of this product comply with the inventory requirements administrated by the components of this product comply with the inventory requirements administrated by the components of this product comply with the inventory requirements and inventory of the components of this product comply with the inventory requirements and inventory of the components of the c			

^{*}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 government.

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

Inventory name

Issue date 11-14-2014

Version # 01

Lilly Lab Code Health: 2 Fire: 1

Reactivity: 0 Special 1: A

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On inventory (yes/no)*

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 00+1+877-352-6261 00+1-800-428-4441

Revision Information

Product and Company Identification: Synonyms