

NP25078025

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Version 2.0 Revision Date 04/11/2023 Date of last issue: 05/09/2016

SECTION 1. IDENTIFICATION

Product name : HENDRIX TURKEY BREEDER VTM PX (3 KG)

Manufacturer or supplier's details

Company name of supplier : DSM Nutritional Products

Address : 45 Waterview Blvd

Parsippany NJ 07054-1298

Telephone : (908) 475-7373 Telefax : (908) 475-7406

Emergency telephone num-

ber

1-800-424-9300 (24 HR CHEMTREC, CA & US); Outside CA

& US +1-703-572-3887 (COLLECT CALLS ACCEPTED)

E-mail address of person responsible for the SDS

sds.nutritionalproducts@dsm.com

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

Serious eye damage : Category 1

Reproductive toxicity : Category 1B

Specific target organ toxicity

- repeated exposure

Category 2

GHS label elements

Hazard pictograms





Signal word : Danger

Hazard statements : May form combustible dust concentrations in air.

H318 Causes serious eye damage.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or re-

peated exposure.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P260 Do not breathe dust.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.

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Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

Risk of dust explosion.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Brief description of the prod-

uct

: Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
manganese sulphate	10034-96-5	>= 10 - < 20
zinc sulphate monohydrate	7446-19-7	>= 5 - < 10
iron sulphate monohydrate	17375-41-6	>= 5 - < 10
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-yl acetate	7695-91-2	>= 1 - < 5
nicotinic acid	59-67-6	>= 1 - < 5
silicon dioxide, amorphous	112926-00-8	>= 1 - < 5
copper sulphate pentahydrate	7758-99-8	>= 1 - < 5
calcium pantothenate, D-form	137-08-6	>= 1 - < 5
retinyl acetate	127-47-9	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.

Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water. If symptoms persist, call a physician.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.



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Continue rinsing eyes during transport to hospital.

Small amounts splashed into eyes can cause irreversible tis-

sue damage and blindness.

If swallowed : Rinse mouth with water.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

Obtain medical attention. Do NOT induce vomiting.

Most important symptoms and effects, both acute and

delayed

No specific symptoms known.

Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water

Foam

Specific hazards during fire-

fighting

Do not allow run-off from fire fighting to enter drains or water

courses.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Consider dust explosion hazard.

Special protective equipment :

for firefighters

In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- :

tive equipment and emer-

gency procedures

Evacuate personnel to safe areas.
Use personal protective equipment.

Ensure adequate ventilation.

Avoid dust formation. Avoid breathing dust.

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for

containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

Avoid dust formation.

Provide appropriate exhaust ventilation at places where dust

is formed.

Take precautionary measures against static discharges.



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Advice on safe handling : Avoid formation of respirable particles.

Avoid exceeding the given occupational exposure limits (see

section 8).

Avoid contact with skin and eyes. For personal protection see section 8.

Dispose of rinse water in accordance with local and national

regulations.

Do not breathe vapours/dust.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Conditions for safe storage : Store at room temperature.

Keep container tightly closed and dry.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of expo-	Control parameters / Permissible concentra-	Basis
		sure)	tion	
manganese sulphate	10034-96-5	С	5 mg/m3 (Manganese)	OSHA Z-1
		TWA (Inhalable particulate matter)	0.1 mg/m3 (Manganese)	ACGIH
		TWA (Respira- ble particulate matter)	0.02 mg/m3 (Manganese)	ACGIH
		TWA	1 mg/m3 (Manganese)	NIOSH REL
		ST	3 mg/m3 (Manganese)	NIOSH REL
iron sulphate monohydrate	17375-41-6	TWA	1 mg/m3 (Iron)	ACGIH
		TWA	1 mg/m3 (Iron)	OSHA P0
		TWA	1 mg/m3 (Iron)	NIOSH REL
3,4-dihydro-2,5,7,8-tetramethyl-2- (4,8,12-trimethyltridecyl)-2H- benzopyran-6-yl acetate	7695-91-2	TWA	8 mg/m3	DSM Internal Limit
nicotinic acid	59-67-6	TWA	0.28 mg/m3	DSM Internal Limit
silicon dioxide, amorphous	112926-00-8	TWA	6 mg/m3	OSHA P0
		TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	NIOSH REL
copper sulphate pentahydrate	7758-99-8	TWA	1 mg/m3 (Copper)	NIOSH REL
calcium pantothenate, D-form	137-08-6	TWA	10 mg/m3	DSM Internal Limit
retinyl acetate	127-47-9	TWA	0.06 mg/m3	DSM Internal Limit

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an

approved filter.



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Hand protection

Remarks Consider the hazard characteristics of this product and any

special workplace conditions when selecting the appropriate

type of protective gloves.

Gloves should be discarded and replaced if there is any indi-

cation of degradation or chemical breakthrough.

Eye protection Safety glasses with side-shields

Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection Choose body protection according to the amount and con-

centration of the dangerous substance at the work place.

Hygiene measures When using do not eat or drink.

When using do not smoke.

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and immediately after handling

the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance : powder

Odour : No information available. Odour Threshold No information available.

pН No data available Melting point/range Not applicable Boiling point/boiling range : Not applicable Flash point : Not applicable

Flammability (solid, gas) May form combustible dust concentrations in air.

Vapour pressure Not applicable Relative vapour density Not applicable Density not determined Water solubility not determined Partition coefficient: n-Not applicable

octanol/water

Auto-ignition temperature No data available Thermal decomposition No data available No data available Explosive properties Oxidizing properties : No data available

Other information

No data available

SECTION 10. STABILITY AND REACTIVITY



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Reactivity No hazards to be specially mentioned.

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reac-

tions

Dust may form explosive mixture in air.

Conditions to avoid Heat

Incompatible materials Strong acids and strong bases

Strong oxidizing agents

Hazardous decomposition

products

No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Acute toxicity estimate : 2,851 mg/kg

(Calculation method)

Skin irritation : May cause skin irritation in susceptible persons.

Eye irritation : May irritate eyes.

Genotoxicity in vitro

retinyl acetate : not mutagenic, not genotoxic (Various test systems)

Carcinogenicity

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

No component of this product present at levels greater than or NTP

equal to 0.1% is identified as a known or anticipated carcino-

gen by NTP.

Teratogenicity

retinyl acetate Teratogenic

embryotoxic

STOT - single exposure (A-

cute exposure)

: The substance or mixture is not classified as specific target

organ toxicant, single exposure.

STOT - repeated exposure

manganese sulphate : May cause damage to organs through prolonged or repeated

exposure.



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Experience with human exposure

manganese sulphate : Overexposure may provoke the following symptoms:

Disorders of the central nervous system, Respiratory disor-

ders

retinyl acetate : RDA (Recommended Daily Allowance) 0.8 mg pure vitamin A

(retinol) per day established for men

RDA (Recommended Daily Allowance) ca. 0.7 mg pure vita-

min A (retinol) per day established for women

Experience with human exposure: Skin contact

retinyl acetate : Skin contact may provoke the following symptoms:

Local irritation

Experience with human exposure: Ingestion

iron sulphate monohydrate : Acute overdose produces the following symptoms:

Stomach/intestinal disorders, Liver disorders

retinyl acetate : Acute overdose produces the following symptoms:

Headache, Irritability, Tiredness, Drowsiness, Nausea, Vomiting, Signs of increased intracranial pressure, Generalized

desquamation of the skin (after ca. 24 hours)

Further information

retinyl acetate : Danger of cumulative effects.

Aspiration toxicity : No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish

zinc sulphate monohydrate : Oncorhynchus mykiss (rainbow trout)

LC50 (96 h) 0.43 mg/l

copper sulphate pentahydra-

te

: Oncorhynchus mykiss (rainbow trout)

LC50 (96 h) 0.2 mg/l

Test substance: anhydrous substance

Toxicity to daphnia and other aquatic invertebrates

manganese sulphate : Daphnia magna (Water flea)

EC50 (48 h) 8.3 mg/l

Toxicity to fish (Chronic toxicity)

3,4-dihydro-2,5,7,8- : Oncorhynchus mykiss (rainbow trout)

tetramethyl-2-(4,8,12trimethyltridecyl)-2Hbenzopyran-6-yl acetate

NOEC (28 d) 100 mg/l (nominal concentration) (OECD Test Guideline 215)



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copper sulphate pentahydra-

te

: several species

NOEC ca. 0.05 mg/l

No data is available on the product itself.

Persistence and degradability

Biodegradability

retinyl acetate : Not readily biodegradable.

33 % (28 d)

(OECD Test Guideline 301B)

No data is available on the product itself.

Bioaccumulative potential

Bioaccumulation : No data available

Partition coefficient: n-

octanol/water

: Not applicable

Mobility in soil

Distribution among environ-

mental compartments

: No data available

Results of PBT and vPvB assessment

Assessment : Not applicable

Other adverse effects

Regulation 40 CFR Protection of Environment; Part 82 Protection of

Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

This product neither contains, nor was manufactured with a
Class I or Class II ODS as defined by the U.S. Clean Air Act

Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological informa-

tion

: Toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Discharge into the environment must be avoided.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Do not dispose of waste into sewer.

Offer surplus and non-recyclable solutions to a licensed dis-

posal company.

User must determine if any wastes generated exhibit hazardous characteristics as per 40 CFR Part 261 or other national /

local legislation.

Contaminated packaging : Dispose of as unused product.

Do not re-use empty containers.



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SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number UN 3077

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, Proper shipping name

N.O.S.

(zinc sulphate monohydrate, copper sulfate)

Class Packing group Ш Labels 9

IATA-DGR

UN/ID No. UN 3077

Proper shipping name Environmentally hazardous substance, solid, n.o.s.

(zinc sulphate monohydrate, copper sulfate)

9 Class Packing group Ш

Labels Miscellaneous

Packing instruction (cargo 956

aircraft)

Packing instruction (passen-956

ger aircraft)

Environmentally hazardous yes

IMDG-Code

UN 3077 **UN** number

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

(zinc sulphate monohydrate, copper sulfate)

Class 9 Ш Packing group Labels 9 **EmS Code** F-A, S-F Marine pollutant yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number UN 3077

Proper shipping name Environmentally hazardous substance, solid, n.o.s.

(zinc sulphate monohydrate, copper sulfate)

Class Packing group Ш Labels CLASS 9 **ERG Code**

yes(zinc sulphate monohydrate, copper sulfate) Marine pollutant

General advice 49CFR: not regulated as a dangerous good in non-bulk pack-

aging

Remarks Above applies only to containers over 119 gallons or 450 li-

ters. Not regulated if shipped in packages less than or equal

to 119 gallons (450 liters).



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Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
copper sulphate pentahydrate	7758-99-8	10	504

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
sodium selenite	10102-18-8	100	

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust

Reproductive toxicity

Specific target organ toxicity (single or repeated exposure)

Serious eye damage or eye irritation

SARA 313 : The following components are subject to reporting levels es-

tablished by SARA Title III, Section 313:

manganese sulphate 10034-96-5 >= 10 - < 20 %

zinc sulphate monohy- 7446-19-7 >= 5 - < 10 %

drate

copper sulphate pen- 7758-99-8 >= 1 - < 5 %

tahvdrate

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

manganese sulphate 10034-96-5 >= 10 - < 20 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

zinc sulphate monohy- 7446-19-7 >= 5 - < 10 %

drate

copper sulphate pen- 7758-99-8 >= 1 - < 5 %

tahydrate



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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

> >= 5 - < 10 % zinc sulphate monohy-7446-19-7

drate

copper sulphate pen->= 1 - < 5 % 7758-99-8

tahydrate

sodium selenite 10102-18-8 >= 0 - < 0.1 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

zinc sulphate monohydrate 7446-19-7 silicon dioxide, amorphous 112926-00-8 copper sulphate pentahydrate 7758-99-8 quartz (SiO2) 14808-60-7 sodium selenite 10102-18-8

Pennsylvania Right To Know

rice hulls / rice flour Not Assigned calcium carbonate 471-34-1 manganese sulphate 10034-96-5 zinc sulphate monohydrate 7446-19-7 iron sulphate monohydrate 17375-41-6 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-7695-91-2

benzopyran-6-yl acetate

nicotinic acid 59-67-6 silicon dioxide, amorphous 112926-00-8 copper sulphate pentahydrate 7758-99-8 sodium selenite 10102-18-8

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

California List of Hazardous Substances

zinc sulphate monohydrate 7446-19-7 copper sulphate pentahydrate 7758-99-8

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.



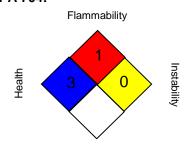
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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada): ECx - Concentration associated with x% response: EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System: IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization: IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI -Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative



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ACGIH = American Conference of Governmental Industrial Hygienists. CFR = Code of Federal Regulations. EPA = Environmental Protection Agency. NIOSH = National Institute of Occupational Safety and Health. OSHA = Occupational Safety and Health Administration. STEL = Short term exposure limit. TLV = Threshold Limit Value. TLV-C = Ceiling Limit Value. TWA = Time Weighted Average.

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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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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