

# NOSB NATIONAL LIST FILE CHECKLIST

## LIVESTOCK

**MATERIAL NAME:** Biotin

**CATEGORY:** Synthetic Allowed

Complete?: 3/22



NOSB Database Form



References



MSDS (or equivalent)



Date file mailed out: 9/22/94



TAP Reviews from: Richard Krenzel  
William Zimmer



Supplemental Information:

MISSING INFORMATION: many criteria not addressed.



# NOSB/NATIONAL LIST COMMENT FORM/BALLOT

Use this page to write down comments and questions regarding the data presented in the file of this National List material. Also record your planned opinion/vote to save time at the meeting on the National List.

Name of Material BIOTIN

Type of Use:  Crops;  Livestock;  Processing

TAP Review by:

1. Richard Krengel
2. William Zimmer
3. \_\_\_\_\_

Comments/Questions:

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My Opinion/Vote is:

Signature \_\_\_\_\_ Date \_\_\_\_\_



# USDA/TAP REVIEWER COMMENT FORM

Use this page or an equivalent to write down comments and summarize your evaluation regarding the data presented in the file of this potential National List material. Attach additional sheets if you wish.

This file is due back to us within 30 days of: SEPT. 22

Name of Material: BIOTIN

Reviewer Name: William A. Zimmer D.V.M.

Is this substance Natural or Synthetic? Explain (if appropriate)  
*Synthetic form is only commercially available form that is generally able to be supplemented into feed.*

Please comment on the accuracy of the information in the file:  
*Accurate. Also available in solution.*

This material should be added to the National List as:

Synthetic Allowed       Prohibited Natural

or,  This material does not belong on the National List because:

Are there any restrictions or limitations that should be placed on this material by use or application on the National List?  
*No restrictions as an additive to feed rations or orally administered preparations. Documentation of dosage and administration, short term, for any injected preparations. Suggest 30 day meat withdrawal due to injection site of liquid preparations.*

Any additional comments or references?  
*Expand status to include use in crops as a foliar or plant food and possibly for preparations to treat stressed crops.*

Signature William A. Zimmer, D.V.M. Date 3/12/95



# USDA/TAP REVIEWER COMMENT FORM

Use this page or an equivalent to write down comments and summarize your evaluation regarding the data presented in the file of this potential National List material. Attach additional sheets if you wish.

This file is due back to us within 30 days of: SEPT. 22

Name of Material: BIOTIN

Reviewer Name: Richard Krenzel

Is this substance Natural or Synthetic? Explain (if appropriate)  
Synthetic

Please comment on the accuracy of the information in the file:  
All correct

This material should be added to the National List as:

Synthetic Allowed       Prohibited Natural

or,  This material does not belong on the National List because:

Are there any restrictions or limitations that should be placed on this material by use or application on the National List?

Any additional comments or references?

Signature R. Krenzel

Date 10/19/94





# NOSB Materials Database

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## Identification

**Common Name** **Biotin** **Chemical Name** D-Biotin  
**Other Names** Hexahydro-2-oxo-1H-THIENO[3,4-D]IMIDAZOLE-4-PENTANOIC Acid  
**Code #: CAS** 00058-85-5 **Code #: Other** NIOSH #: XJ9088200  
**N. L. Category** Synthetic Allowed

## Chemistry

**Composition** C10H16N2O3S **Family**

**Properties** White crystalline powder. Melting point 232 C, appreciable solubility.

**How Made**

## Use/Action

**Type of Use** Livestock  
**Use(s)** feed additive

**Action**

**Combinations**

## Status

**OFPA** 2118 (c) (1) (B)(i) synthetic on exemption list as vitamin  
**N. L. Restriction** Category 3- TAP review before National List

**EPA, FDA, etc** FDA: allowed in animal feed under 582.5159 (GRAS)

**Registration**

**Directions**

**Safety Guidelines** Caution - May cause irritation.

**State Differences**

**Historical status**

**International status**



# NOSB Materials Database

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## OFPA Criteria

2119(m)1:chem. inter.

2119(m)2: toxicity

2119(m)3:manufacture

2119(m)4:humans No carcinogenicity. No LD50 on MSDS.

2119(m)5: biology

2119(m)6:alternatives

2119(m)7:compatible

## References

Bitsch,-R.; Toth-Dersi,-A.; Hoetzel,-D., "Biotin deficiency and biotin supply." Ann-N-Y-Acad-Sci. New York, N.Y. : The Academy. June 24, 1985. v. 447 p. 133-139. CN: DNAL 500-N484

Whitehead,-C.C. "Assessment of biotin deficiency in animals." Ann-NY -Acad-Sci. New York, N.Y. : The Academy. June 24, 1985. v. 447 p. 86-96. ill. CN: DNAL 500-N484

Paul,-P.K. "Effect of nutrient toxicities in animals and man: biotin Includes insects." Nutritional disorders. Miloslav Rechcigl, editor-in-chief. West Palm Beach, CRC Press, 1978. v.1 p. 47-58. CN:DNAL RC620.A1N83







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FLAMMABLE LIMITS: UPPER - N/A %    LOWER - N/A %

FIRE EXTINGUISHING MEDIA

USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.

TOXIC GASES PRODUCED

NITROGEN OXIDES, SULFUR DIOXIDE, CARBON MONOXIDE, CARBON DIOXIDE

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**5 - HEALTH HAZARD DATA**  
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CARCINOGENICITY: NTP: NO    IARC: NO    Z LIST: NO    OSHA REG: NO

EFFECTS OF OVEREXPOSURE: PROLONGED CONTACT MAY CAUSE SKIN SENSITIZATION.

TARGET ORGANS: NONE IDENTIFIED

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE IDENTIFIED

ROUTES OF ENTRY: NONE INDICATED

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: IF SWALLOWED AND THE PERSON IS CONSCIOUS, IMMEDIATELY GIVE LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION.

INHALATION: IF A PERSON BREATHES IN LARGE AMOUNTS, MOVE THE EXPOSED PERSON TO FRESH AIR. GET MEDICAL ATTENTION.

EYE CONTACT: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.

SKIN CONTACT: IMMEDIATELY WASH WITH PLENTY OF SOAP AND WATER FOR AT LEAST 15 MINUTES.

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**6 - REACTIVITY DATA**  
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STABILITY: STABLE                      HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: HEAT, SUNLIGHT AND ULTRAVIOLET LIGHT

INCOMPATIBLES: STRONG OXIDIZING AGENTS, STRONG ACIDS, STRONG BASES, FORMALDEHYDE, NITROUS ACID, CHLORAMINE-T

DECOMPOSITION PRODUCTS: OXIDES OF NITROGEN, OXIDES OF SULFUR, CARBON MONOXIDE, CARBON DIOXIDE

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**7 - SPILL AND DISPOSAL PROCEDURES**  
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STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE

WEAR SUITABLE PROTECTIVE CLOTHING. CAREFULLY SWEEP UP AND REMOVE.

DISPOSAL PROCEDURE

DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.





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**8 - PROTECTIVE EQUIPMENT**  
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VENTILATION: USE ADEQUATE GENERAL OR LOCAL EXHAUST VENTILATION TO KEEP FUME OR DUST LEVELS AS LOW AS POSSIBLE.

RESPIRATORY PROTECTION: NONE REQUIRED WHERE ADEQUATE VENTILATION CONDITIONS EXIST. IF AIRBORNE CONCENTRATION IS HIGH, USE AN APPROPRIATE RESPIRATOR OR DUST MASK.

EYE/SKIN PROTECTION: SAFETY GLASSES WITH SIDESHIELDS, RUBBER GLOVES ARE RECOMMENDED.

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**9 - STORAGE AND HANDLING PRECAUTIONS**  
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SAF-T-DATA(TM) STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

**SPECIAL PRECAUTIONS**

KEEP CONTAINER TIGHTLY CLOSED. SUITABLE FOR ANY GENERAL CHEMICAL STORAGE AREA.

STORE BELOW 40 C.

KEEP CONTAINERS OUT OF SUN AND AWAY FROM HEAT.

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**10 - TRANSPORTATION DATA AND ADDITIONAL INFORMATION**  
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**DOMESTIC (D.O.T.)**

PROPER SHIPPING NAME CHEMICALS, N.O.S. (NON-REGULATED)

**INTERNATIONAL (I.M.O.)**

PROPER SHIPPING NAME CHEMICALS, N.O.S. (NON-REGULATED)





