

**Formal Recommendation by the  
National Organic Standards Board (NOSB)  
to the National Organic Program (NOP)**

**Date:** October 28, 2010

**Subject:** 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (CAS# 126-86-3)

**Chair:** Daniel G. Giacomini

**The NOSB hereby recommends to the NOP the following:**

Rulemaking Action  
Guidance Statement  
Other

Not to list 2,4,7,9-Tetramethyl-5-decyne-4,7-diol CAS# 126-86-3) determined to be synthetic on the National List §205.601.

**Statement of the Recommendation (Including Recount of Vote):**

The recommendation is to consider 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (CAS# 126-86-3) synthetic. The motion passed 14 yes, 0 no, no abstentions, no absences, and no conflicts of interest.

The recommendation is to list 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (CAS# 126-86-3) on the National List 205.601 for use in organic agriculture. The motion was defeated 14 no, 0 yes, no abstentions, no absences, and no conflicts of interest.

**Rationale Supporting Recommendation (including consistency with OFPA and NOP):**

Substance fails criteria 1 (impact on humans and environment), 2 (essential & availability criteria), and 3 (compatibility & consistency). Please see attached Crops Committee recommendation.

**NOSB Vote:**

To classify 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (CAS# 126-86-3) as synthetic

|                           |              |                           |                  |                   |
|---------------------------|--------------|---------------------------|------------------|-------------------|
| <b>Moved:</b> Barry Flamm |              | <b>Second:</b> Jeff Moyer |                  |                   |
| <b>Yes: 14</b>            | <b>No: 0</b> | <b>Abstain: 0</b>         | <b>Absent: 0</b> | <b>Recusal: 0</b> |

**NOSB Vote:**

To add 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (CAS# 126-86-3) to § 205.601 on the National List.

|                           |               |                           |                  |                   |
|---------------------------|---------------|---------------------------|------------------|-------------------|
| <b>Moved:</b> Barry Flamm |               | <b>Second:</b> Jeff Moyer |                  |                   |
| <b>Yes: 0</b>             | <b>No: 14</b> | <b>Abstain: 0</b>         | <b>Absent: 0</b> | <b>Recusal: 0</b> |

# NOSB COMMITTEE RECOMMENDATION

Form NOPLIST1. Committee Transmittal to NOSB

For NOSB Meeting: Fall 2010

Substance: 2,4,7,9-Tetramethyl-5-decyne-4,7-diol

Committee: Crops ☒ Livestock ☐ Handling ☐ Petition is for: adding 2,4,7,9-Tetramethyl-5-decyne-4,7-diol  
on the National List § 205.601

**A. Evaluation Criteria** (Applicability noted for each category; Documentation attached) **Criteria Satisfied? (see B below)**

- |                                                                                      |                              |                                        |                                         |
|--------------------------------------------------------------------------------------|------------------------------|----------------------------------------|-----------------------------------------|
| 1. Impact on Humans and Environment                                                  | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/>            |
| 2. Essential & Availability Criteria                                                 | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/>            |
| 3. Compatibility & Consistency                                                       | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/>            |
| 4. Commercial Supply is Fragile or Potentially Unavailable as Organic (only for 606) | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | N/A <input checked="" type="checkbox"/> |

**B. Substance Fails Criteria Category: 1, 2, 3** Comments: According to the TR material is not allowed for use in organic crop production by either EU or Codex. See following evaluation.

**C. Proposed Annotation (if any):** \_\_\_\_\_

Basis for annotation: To meet criteria above: \_\_\_\_\_ Other regulatory criteria: \_\_\_\_\_ Citation: \_\_\_\_\_

**D. Recommended Committee Action & Vote, including classification recommendation (State Actual Motion):**

To approve 2,4,7,9-Tetramethyl-decyne-4,7-diol to 205.601(m) of the National List

Classification of the material: Synthetic X Non-synthetic \_\_\_\_\_ Absent: \_\_\_\_\_ Abstain \_\_\_\_\_

Motion by: Jeff Moyer Seconded: Tina Ellor Yes: 1 No: 5 Absent: 1 Abstain: \_\_\_\_\_

|                |                                     |                                                   |                                     |                         |   |
|----------------|-------------------------------------|---------------------------------------------------|-------------------------------------|-------------------------|---|
| Crops          | <input checked="" type="checkbox"/> | Agricultural                                      |                                     | Allowed <sup>1</sup>    |   |
| Livestock      |                                     | Non-Synthetic                                     |                                     | Prohibited <sup>2</sup> |   |
| Handling       |                                     | Synthetic                                         | <input checked="" type="checkbox"/> | Rejected <sup>3</sup>   | X |
| No restriction |                                     | Commercially Un-Available as Organic <sup>1</sup> |                                     | Deferred <sup>4</sup>   |   |

1) Substance voted to be added as "allowed" on National List to § 205. \_\_\_\_\_ with Annotation (if any) \_\_\_\_\_

2) Substance to be added as "prohibited" on National List to § 205. \_\_\_\_\_ with Annotation (if any) \_\_\_\_\_

Describe why a prohibited substance: \_\_\_\_\_

3) Substance was rejected by vote for amending National List to § 205. 601 \_\_\_\_\_ Describe why material was rejected: Adverse effects on humans and the environment, not compatible with organic production and alternatives are available.

4) Substance was recommended to be deferred because \_\_\_\_\_

If follow-up needed, who will follow up \_\_\_\_\_

**E. Approved by Committee Chair to transmit to NOSB:**

\_\_\_\_\_  
Committee Chair

\_\_\_\_\_  
Date

## EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

**Category 1. Adverse impacts on humans or the environment?**      Substance: Tetramethyl decyne diol

| Question                                                                                                                  | Ye<br>s | N<br>o | N/A <sup>1</sup> | Documentation<br>(TAP; petition; regulatory agency; other)                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------|---------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Are there adverse effects on environment from manufacture, use, or disposal? [§205.600 b.2]                            |         |        | X                |                                                                                                                                                                                                                                                                                                                                                |
| 2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3]                         | X       |        |                  | TAP lines 133-149: Trace amounts appear to be released to the environment via air and water. Potential concern from run off from fields after treatment.                                                                                                                                                                                       |
| 3. Is the substance harmful to the environment and biodiversity? [§6517c(1)(A)(i);6517(c)(2)(A)i]                         | X       |        |                  | TAP lines 169-172: slightly toxic to fish and aquatic invertebrates and moderately toxic to aquatic plants. Has long half lives. Lines 184-5: Has ability to persist in the environment and interact with other chemicals and organic substances. Line 204: may have detrimental physiological effects on soil, organisms, crops or livestock. |
| 4. Does the substance contain List 1, 2, or 3 inert? [§6517 c (1) (B)(ii); 205.601(m)2]                                   | X       |        |                  | List 3 Inerts of unknown toxicity. List 3 now obsolete.                                                                                                                                                                                                                                                                                        |
| 5. Is there potential for detrimental chemical interaction with other materials used? [§6518 m.1]                         | X       |        |                  | See 3 above. Also TAP lines 198-99, if solubilized in an organic solvent, there may be additional concerns about adverse effects on the agro ecosystem.                                                                                                                                                                                        |
| 6. Are there adverse biological and chemical interactions in agro- ecosystem? [§6518 m.5]                                 | X       |        |                  | See 5 above.                                                                                                                                                                                                                                                                                                                                   |
| 7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5]                        | X       |        |                  | TAP line 204                                                                                                                                                                                                                                                                                                                                   |
| 8. Is there a toxic or other adverse action of the material or its breakdown products? [§6518 m.2]                        | X       |        |                  | TAP lines 204-297                                                                                                                                                                                                                                                                                                                              |
| 9. Is there undesirable persistence or concentration of the material or breakdown products in environment?[§6518 m.2]     | X       |        |                  | TAP lines 184-185                                                                                                                                                                                                                                                                                                                              |
| 10. Is there any harmful effect on human health? [§6517 c (1)(A) (i) ; 6517 c(2)(A)i; §6518 m.4]                          | X       |        |                  | TAP lines 312-329: severely irritating to eyes, mildly irritating to skin, inhalation may cause headache, drowsiness, or other effects to the central nervous system.                                                                                                                                                                          |
| 11. Is there an adverse effect on human health as defined by applicable Federal regulations? [205.600 b.3]                | X       | X      |                  | TAP lines 72-82, Petition: Has 3 EPA exemptions from the requirement of a tolerance when not more than 2.5% of the pesticide formulation.                                                                                                                                                                                                      |
| 12. Is the substance GRAS when used according to FDA's good manufacturing practices? [§205.600 b.5]                       |         | X      |                  | Not approved by FDA as a food additive.                                                                                                                                                                                                                                                                                                        |
| 13. Does the substance contain residues of heavy metals or other contaminants in excess of FDA tolerances? [§205.600 b.5] |         | X      |                  | TAP, Petition                                                                                                                                                                                                                                                                                                                                  |

<sup>1</sup> If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

**Category 2. Is the Substance Essential for Organic Production?** Substance: Tetramethyl

| Question                                                                                                    | Yes | No | N/A <sup>1</sup> | Documentation<br>(TAP; petition; regulatory agency; other)                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------|-----|----|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Is there a natural source of the substance?<br>[§205.600 b.1]                                            |     |    | X                | TAP lines 122-123,128.                                                                                                                                                                                            |
| 2. Is there an organic substitute? [§205.600 b.1]                                                           |     |    | X                | TAP 332-340: There are non-synthetic saponins and microbial wetting agents on OMRI list.                                                                                                                          |
| 3. Is the substance essential for handling of organically produced agricultural products? [§205.600 b.6]    |     |    | X                | TAP 332-340, 342-371: alternatives are available.                                                                                                                                                                 |
| 4. Is there a wholly natural substitute product?<br>[§6517 c (1)(A)(ii)]                                    |     |    | X                | Possibly. See TAP lines 332-340                                                                                                                                                                                   |
| 5. Is the substance used in handling, not synthetic, but not organically produced?<br>[§6517 c (1)(B)(iii)] |     |    | X                |                                                                                                                                                                                                                   |
| 6. Is there any alternative substances? [§6518 m.6]                                                         | X   |    |                  | TAP lines 345-371: could use synthetics already listed in 205.601                                                                                                                                                 |
| 7. Is there another practice that would make the substance unnecessary? [§6518 m.6]                         | X   |    |                  | TAP lines 376-405: alternative practices such as bio controls, cultural measures( crop rotation, cover crops, sanitation,mowing,weeding,flame, pruning, mulches, others) natural substances, resistant varieties. |
| 8. Is the substance used in handling, not synthetic, but not organically produced?<br>[§6517 c (1)(B)(iii)] |     |    |                  | Duplicate question                                                                                                                                                                                                |
| 9. Is there any alternative substances? [§6518 m.6]                                                         |     |    |                  | Duplicate question                                                                                                                                                                                                |
| 10. Is there another practice that would make the substance unnecessary?<br>[§6518 m.6]                     |     |    |                  | Duplicate question                                                                                                                                                                                                |

<sup>1</sup> If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

**Category 3. Is the substance compatible with organic production practices?**Substance: Tetramethyl

| Question                                                                                                                                                                             | Yes | No | N/A <sup>1</sup> | Documentation<br>(TAP; petition; regulatory agency; other)                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Is the substance compatible with organic handling? [§205.600 b.2]                                                                                                                 |     |    | X                |                                                                                                                                                     |
| 2. Is the substance consistent with organic farming and handling, and biodiversity? [§6517 c (1)(A)(iii); 6517 c (2)(A)(ii)]                                                         |     | X  |                  | TAP: Wide range of known and potential adverse effects to biodiversity and agro ecosystem.                                                          |
| 3. Is the substance compatible with a system of sustainable agriculture? [§6518 m.7]                                                                                                 |     | X  |                  | TAP line 184: Material is not readily biodegradable with ability to persist in the environment thus is not compatible with sustainable agriculture. |
| 4. Is the nutritional quality of the food maintained with the substance? [§205.600 b.3]                                                                                              |     |    | X                |                                                                                                                                                     |
| 5. Is the primary use as a preservative? [§205.600 b.4]                                                                                                                              |     |    | X                |                                                                                                                                                     |
| 6. Is the primary use to recreate or improve flavors, colors, textures, or nutritive values lost in processing (except when required by law, e.g., vitamin D in milk)? [205.600 b.4] |     |    | X                |                                                                                                                                                     |
| 7. Is the substance used in production, and does it contain an active synthetic ingredient in the following categories:                                                              |     | X  |                  |                                                                                                                                                     |
| a. copper and sulfur compounds;                                                                                                                                                      |     | X  |                  |                                                                                                                                                     |
| b. toxins derived from bacteria;                                                                                                                                                     |     | X  |                  |                                                                                                                                                     |
| c. pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals?                                                                                       |     | X  |                  |                                                                                                                                                     |
| d. livestock parasiticides and medicines?                                                                                                                                            |     | X  |                  |                                                                                                                                                     |
| e. production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleaners?                                                       |     | X  |                  |                                                                                                                                                     |

<sup>1</sup> If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

**Category 4. Is the commercial supply of an agricultural substance as organic, fragile or potentially unavailable?**

[§6610, 6518, 6519, 205.2, 205.105 (d), 205.600 (c) 205.2, 205.105 (d), 205.600 (c)]

**Substance - \_\_\_\_\_**

| Question                                                                                                                                                                                                                                                               | Yes | No | N/A | Comments on Information Provided<br>(sufficient, plausible, reasonable,<br>thorough, complete, unknown) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|---------------------------------------------------------------------------------------------------------|
| 1. Is the comparative description provided as to why the non-organic form of the material /substance is necessary for use in organic handling?                                                                                                                         |     |    |     |                                                                                                         |
| 2. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate <b>form</b> to fulfill an essential function in a system of organic handling?     |     |    |     |                                                                                                         |
| 3. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate <b>quality</b> to fulfill an essential function in a system of organic handling?  |     |    |     |                                                                                                         |
| 4. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate <b>quantity</b> to fulfill an essential function in a system of organic handling? |     |    |     |                                                                                                         |
| 5. Does the industry information provided on material / substance non-availability as organic, include ( but not limited to) the following:                                                                                                                            |     |    |     |                                                                                                         |
| a. Regions of production (including factors such as climate and number of regions);                                                                                                                                                                                    |     |    |     |                                                                                                         |
| b. Number of suppliers and amount produced;                                                                                                                                                                                                                            |     |    |     |                                                                                                         |
| c. Current and historical supplies related to weather events such as hurricanes, floods, and droughts that may temporarily halt production or destroy crops or supplies;                                                                                               |     |    |     |                                                                                                         |
| d. Trade-related issues such as evidence of hoarding, war, trade barriers, or civil unrest that may temporarily restrict supplies; or                                                                                                                                  |     |    |     |                                                                                                         |
| e. Are there other issues which may present a challenge to a consistent supply?                                                                                                                                                                                        |     |    |     |                                                                                                         |