

NOSB NATIONAL LIST FILE CHECKLIST

PROCESSING

MATERIAL NAME: #25 Tocopherols



NOSB Database Form



References



MSDS (or equivalent)



FASP (FDA)



TAP Reviews from: Joe Montecalvo, Rich
Theuer

**NOSB/NATIONAL LIST
COMMENT FORM
PROCESSING**

Material Name: #25 Tocopherols

Please use this page to write down comments, questions, and your anticipated vote(s).

COMMENTS/QUESTIONS:

1. In my opinion, this material is:
 Synthetic Non-synthetic.

2. Should this material be allowed in an “organic food” (95% or higher organic ingredients)? Yes No
(IF NO, PROCEED TO QUESTION 3.)

3. Should this substance be allowed in a “food made with organic ingredients” (50% or higher organic ingredients)? Yes No

TAP REVIEWER COMMENT FORM for USDA/NOSB

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. Complete both sides of page. Attach additional sheets if you wish.

This file is due back to us by: August 29, 1995

Name of Material: Tocopherols

Reviewer Name: Dr. Joseph Montecalvo

Is this substance Synthetic or non-synthetic? Explain (if appropriate)

Synthetic (ie. isomer of Vit. E)
If synthetic, how is the material made? (please answer here if our database form is blank)

This material should be added to the National List as:

Synthetic Allowed Prohibited Natural

or, Non-synthetic (Allowed as an ingredient in organic food)

Non-synthetic (Allowed as a processing aid for organic food)

or, this material should not be on the National List

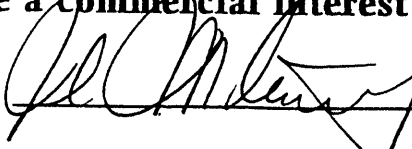
Are there any use restrictions or limitations that should be placed on this material on the National List?

ONLY As A food Antioxidant

Please comment on the accuracy of the information in the file: good

Any additional comments? (attachments welcomed) - None

Do you have a commercial interest in this material? Yes; No

Signature  Date 7/31/95

Please address the 7 criteria in the Organic Foods Production Act:
(comment in those areas you feel are applicable)

- (1) the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;

little

- (2) the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;

none.

- (3) the probability of environmental contamination during manufacture, use, misuse or disposal of such substance;

none

- (4) the effect of the substance on human health;

- has been used in V.T.E. dietary supplements

- (5) the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;

little

- (6) the alternatives to using the substance in terms of practices or other available materials; and

none.

- (7) its compatibility with a system of sustainable agriculture.

only when used as antioxidant.

TAP REVIEWER COMMENT FORM for USDA/NOSB

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. Complete both sides of page. Attach additional sheets if you wish.

This file is due back to us by: August 29, 1995

Name of Material: Tocopherols

Reviewer Name: R THEUER

Is this substance Synthetic or non-synthetic? Explain (if appropriate)

SYNTHETIC

If synthetic, how is the material made? (please answer here if our database form is blank)

SEE ATTACH SHEET

This material should be added to the National List as:

Synthetic Allowed Prohibited Natural

or, Non-synthetic (Allowed as an ingredient in organic food)

Non-synthetic (Allowed as a processing aid for organic food)

or, this material should not be on the National List

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

SELF-LIMITING

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

NOT COMPLETE ON SYNTHESIS

Any additional comments? (attachments welcomed)

BASED ON NOSB DECISION ON POTASSIUM IODIDE ONLY IN "FOODS MADE WITH ORGANIC INGRED."

Do you have a commercial interest in this material? Yes; No

Signature R Theuer Date 8/28/95

6:
7:

Please address the 7 criteria in the Organic Foods Production Act:
(comment in those areas you feel are applicable)

- (1) the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;**

- (2) the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;**

- (3) the probability of environmental contamination during manufacture, use, misuse or disposal of such substance;**

- (4) the effect of the substance on human health;**

- (5) the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;**

- (6) the alternatives to using the substance in terms of practices or other available materials; and**

- (7) its compatibility with a system of sustainable agriculture.**

USDA/TAP REVIEWER
COMMENT FORM

Original mailing date:

Material: Vitamin E: DL-alpha tocopheryl acetate
Mixed Tocopherols
Reviewer: Richard C. Theuer

NATURAL & SYNTHETIC Alpha-tocopheryl acetate is the principal commercial form of Vitamin E for food fortification, dietary supplementation and medicinals, and for domestic animals.

Concentrates of mixed tocopherols can be obtained from vegetable oils by treatment with chemicals. Inactive natural forms are converted to active forms **synthetically**, but are considered "natural" in the trade. Totally synthetic pure tocopherols also are commercially available.

COMMENTS RE SECTION 2119(m) CRITERIA:

Identification

Common Name	Tocopherols	Chemical Name	Tocopherol, d-mixed
Other Names	Vitamin E, Mixed tocopherols concentrate		
Code #: CAS	59-02-9; 16698-35-4; 54-28-4	Code #: Other	
N. L. Category	Synthetic Allowed	MSDS	<input checked="" type="radio"/> yes <input type="radio"/> no

Chemistry

Family

Composition Mixed tocopherol concentrate contain a specified minimum amount of total tocopherols, differing only in levels of the *d*-tocopherol forms. The *high-alpha* type is a recognized form of vitamin E and is also an antioxidant. The *low-alpha* type contains more of the beta, gamma and delta forms of tocopherol and is not a vitamin but is an antioxidant. Both types may contain added vegetable oil to adjust the amount of total tocopherols.

Properties *d*-α-tocopherol is a red, nearly odorless, viscous oil. Oxidizes and darkens slowly in air and on exposure to light. Insoluble in water, soluble in alcohol, and miscible with acetone, ether, and vegetable oils. Mixed tocopherols concentrate occurs as a brownish red to red, clear viscous oil with a mild, characteristic odor and taste. It oxidizes and darkens slowly in air and light. Same solubility as *d*-α-tocopherol.

How Made Vacuum steam distillation of edible vegetable oil products. Gum acacia is added to dry form as a carrier.

Use/Action

Type of Use Processing

Specific Use(s) antioxidant for all food products. Dietary supplement.

Action Natural preservative; delays onset of oxidative rancidity.

Combinations

Status

OFPA

N. L. Restriction

EPA, FDA, etc FDA-GRAS

Directions

Safety Guidelines

State Differences

Historical status Tith approved.

International status

OEPA Criteria

2119(m)1: chemical interactions Not Applicable

2119(m)2: toxicity & persistence Not Applicable

2119(m)3: manufacture & disposal consequences

2119(m)4: effect on human health

2119(m)5: agroecosystem biology Not Applicable

2119(m)6: alternatives to substance

BHA, BHT, TBHQ are synthetic alternatives. Rosemary extract may be an organic alternative.

2119(m)7: Is it compatible?

References

Brad Carlson, Henkel Corporation, 1995. written communication.

Boyd Foster, Arrowhead Mills, 1994, written communication.

HENKEL CORPORATION

FUNCTIONAL PRODUCTS GROUP

SERIAL SAFETY DATA SHEET # 1229 COVI-OX T-30P

SOURCE # 3334

DATE REVISED: 8/26/93

DATE PRINTED: 11/22/94

HMS RATING HEALTH 1 FLAMMABILITY 1 REACTIVITY 0 Other

NFPA RATING HEALTH 1 FLAMMABILITY 1 REACTIVITY 0 Other

SECTION I PRODUCT IDENTIFICATION *****

TRADE NAME: COVI-OX T-30P

CHEMICAL NAME: SPRAY DRIED MIXED TOCOPHEROL CONCENTRATE

SYNONYMS: SPRAY DRIED MIXED TOCOPHEROL CONCENTRATE

CASRN: N/A - MIXTURE

TECHNICAL CONTACT:

DR. JAMES P. CLARK

TELEPHONE NUMBER:
708-579-6150

EMERGENCY NUMBER:
800-424-9300

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS *****

***** EMERGENCY *****
***** OVERVIEW *****

LOW HAZARD FOR USUAL INDUSTRIAL OR COMMERCIAL HANDLING.

OTHER:

THE PRECEDING WAS ESTIMATED FROM SAFETY DATA FOR COMPONENTS.

***** HAZARDOUS COMPONENTS *****

CHEMICAL	HAZARD	TLV	STEL
NONE			

SECTION 3: HAZARDS IDENTIFICATION *****

IN AND EYE CONTACT:

IRITANT; MAY CAUSE EYE AND SKIN IRRITATION ON PROLONGED OR REPEATED EXPOSURE.
PROTECT EYES, SKIN AND CLOTHING FROM CONTACT WITH PRODUCT. WASH THOROUGHLY AFTER HANDLING.

INHALATION:

ORAL INGESTION:

CONSIDERED TO BE NON-TOXIC BY ANIMAL TESTS.

ROUTES OF EXPOSURE:

INHALATION N DERMAL Y ORAL Y

CHRONIC EFFECTS:

SECTION 4: FIRST AID MEASURES *****

SKIN AND EYE CONTACT:

IN CASE OF EYE OR SKIN CONTACT, FLUSH THOROUGHLY WITH PLENTY OF WATER.

INHALATION:

ORAL INGESTION:

IF SWALLOWED IN LARGE QUANTITIES, GET MEDICAL ATTENTION.

HENKEL CORPORATION
FUNCTIONAL PRODUCTS GROUP
MATERIAL SAFETY DATA SHEET # 1229 COVI-OX T-30P

SECTION 5: FIRE FIGHTING MEASURES *****

FLASH POINT: N/A DEG F TEST METHOD: N/A
LOWER FLAMMABLE LIMIT - N/D UPPER FLAMMABLE LIMIT - N/D

RECOMMENDED EXTINGUISHING MEDIA:
WATER SPRAY, CO2, FOAM, DRY CHEMICAL

UNUSUAL FIRE OR EXPLOSION HAZARDS (CONDITIONS TO AVOID):
NONE KNOWN TO HENKEL.

HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN TO HENKEL

SPECIAL FIRE FIGHTING PROCEDURES:
NONE KNOWN TO HENKEL.

SECTION 6: ACCIDENTAL RELEASE MEASURES *****

STEPS TO TAKE IF SPILLED:
PICK UP SPILLED MATERIAL AND CONTAINERIZE. VACUUM AREA OR FLUSH WITH WATER TO REMOVE RESIDUES.

SECTION 7: HANDLING AND STORAGE *****

STORE AWAY FROM HEAT AND DIRECT SUNLIGHT.
PROTECT FROM FREEZING.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION *****

VENTILATION REQUIREMENTS:
NOT NECESSARY UNDER NORMAL USE CONDITIONS

PERSONAL PROTECTIVE EQUIPMENT RECOMMENDED FOR NORMAL USE CONDITIONS:
EYE PROTECTION:
SAFETY GLASSES

SKIN PROTECTION:
N/A UNDER NORMAL USE CONDITIONS

RESPIRATORY PROTECTION:
N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES *****

PHYSICAL STATE: Solid ODOR: MILD
APPEARANCE: TAN POWDER
PH: N/D
BOILING POINT: N/D DEG C
MELTING POINT: ND DEG C
DENSITY: .450 GRAMS/CC
WATER MISCIBILITY: MODERATE - 1 to 10 %
PERCENT VOLATILES: 0 AT 70 DEG F.
VAPOR DENSITY IS HEAVIER THAN AIR

HENKEL CORPORATION
 FUNCTIONAL PRODUCTS GROUP
 MATERIAL SAFETY DATA SHEET # 1229 COVI-OX T-30P

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES *****

VAPOR PRESSURE: N/D MMHG
 VOC CONTENT by WT.(EPA METHOD 24): N/A %

SECTION 10: STABILITY AND REACTIVITY *****

UNUSUAL FIRE OR EXPLOSION HAZARDS (CONDITIONS TO AVOID):
 NONE KNOWN TO HENKEL.
 HAZARDOUS DECOMPOSITION PRODUCTS:
 NONE KNOWN TO HENKEL

SECTION 11: TOXICOLOGICAL INFORMATION *****

TEST TYPE	RESULT	TYPE	ANIMAL SPECIES	HAZARD RANK
DERMAL TOXICITY				SLIGHT COMP
EYE IRRITATION				MODERATE COMP
ORAL TOXICITY				RELATIVELY HARMLESS
SKIN IRRITATION				SLIGHT COMP
LC(50) - N/D				
LD(50) - N/D				
SEE SECT. 16 FOR LEGEND				

SECTION 12: ECOLOGICAL INFORMATION *****

'D

SECTION 13: DISPOSAL CONSIDERATIONS *****

WASTE DISPOSAL:
 THIS PRODUCT, IF DISPOSED AS SHIPPED, IS NOT A HAZARDOUS WASTE AS SPECIFIED IN 40 CFR 261. DISPOSE OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

SECTION 14: TRANSPORTATION INFORMATION *****

DOT HAZARD CLASS:
 DOT HAZARDOUS MATERIALS:
 UN/NA: N/A
 EMERGENCY RESPONSE GUIDE NUMBER: 00
 HARMONIZE NUMBER: 2936.28.0000 3
 PACKAGING GROUP: Empty

SECTION 15: REGULATORY INFORMATION *****

TSCA:
 5(A)(2) SNUR: NONE
 5(E) CONSENT ORDER: NONE
 5(H)(3) R&D EXEMPT NO

HENKEL CORPORATION
FUNCTIONAL PRODUCTS GROUP
MATERIAL SAFETY DATA SHEET # 1229 COVI-OX T-30P

SECTION 15: REGULATORY INFORMATION *****

8(B) INVENTORY STATUS:
THIS PRODUCT AND/OR ALL OF ITS COMPONENTS ARE REGISTERED AS REQUIRED BY TSCA.

12(B) EXPORT NOTIFICATION:

NONE
SARA TITLE III:
302EHS:

NONE
302 (CERCLA):

NONE
311/312 PRODUCT HAZARD CLASS:
ACUTE N CHRONIC N FIRE N SUDDEN RELEASE N REACTIVE N
313 TOXIC CHEMICALS:
NONE

SECTION 16: OTHER INFORMATION *****

N/D = NOT DETERMINED	G/KG = GRAMS PER KILOGRAM
N/A = NOT AVAILABLE	MG/KG = MILLIGRAMS PER KILOGRAM
ANLG = ANALOGOUS MATERIAL	MG/L = MILLIGRAMS PER LITER
COMP = ESTIMATED FROM COMPONENTS	MG/M3 = MILLIGRAMS PER CUBIC METER
DILU = DILUTED PRODUCT	ML/KG = MILLILITERS PER KILOGRAM
LITR = LITERATURE SEARCH	PPM = PARTS PER MILLION
RMAT = RAW MATERIAL DATA	0-110 = SCORING RANGE
TRNO = TEST REPORT	0-8 = SCORING RANGE

THE INFORMATION HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION HENKEL CORPORATION CONSIDERS TO BE ACCURATE. NO WARRANTY EXPRESSED OR IMPLIED IS INTENDED.
THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION AND INTERPRETATION.
* IN TRADENAME DENOTES REGISTERED TRADEMARK

PREPARED BY CARY C CALL
(815) 939-6042
FAX (815) 939-8907

HENKEL CORPORATION
FUNCTIONAL PRODUCTS GROUP
S. KENSINGTON ROAD
KANKAKEE, IL 60901-0191

