

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

SECTION 1. IDENTIFICATION

Product name : DL-alpha-Tocopheryl Acetate

Substance name : 3,4-Dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-ol acetate

Manufacturer or supplier's details

Company name of supplier : DSM Nutritional Products LLC

Address : 250 Plainsboro Rd
Plainsboro NJ 08536

Telephone : (609) 452-1000

Emergency telephone number : 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

Recommended use of the chemical and restrictions on use

Recommended use : For the fortification of foods
Ingredient for capsules and/or tablets
Ingredient for personal care products

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Not a hazardous substance or mixture.

GHS label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : all-rac- α -Tocopheryl Acetate

Molecular formula : C₃₁ H₅₂ O₃

Brief description of the product : Substance

Substance name : 3,4-Dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-ol acetate

CAS-No. : 7695-91-2

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-yl ace-	7695-91-2	>= 90 - <= 100

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

tate

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
- If swallowed : Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
- 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 : Alcohol-resistant foam
Dry chemical
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : None known.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
- Environmental precautions : Try to prevent the material from entering drains or water courses.

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge.
Product will burn under fire conditions.

Advice on safe handling : For personal protection see section 8.

Conditions for safe storage : To maintain product quality, do not store in heat or direct sunlight.

Keep container tightly closed and dry.

Materials to avoid : No special restrictions on storage with other products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-yl acetate	7695-91-2	TWA	8 mg/m ³	DSM Internal Limit

Personal protective equipment

Respiratory protection : Breathing apparatus needed only when aerosol or mist is formed.

No personal respiratory protective equipment normally required.

Hand protection
Remarks : Glove material: for example nitrile rubber

Eye protection : Safety glasses

Skin and body protection : Lightweight protective clothing

Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance : viscous liquid
Colour : colourless - yellow
Odour : odourless
Odour Threshold : No information available.
pH : No data available
Melting point/range : -27.5 °C
Boiling point/boiling range : 267 °C (3.2 hPa)

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

	184 °C (0.01 hPa)
	> 300 °C (1,013 hPa) with decomposition
Flash point	: 469 - 511 °F (243 - 266 °C) (DIN 51758)
Evaporation rate	: not determined
Lower explosion limit	: not determined
Upper explosion limit	: not determined
Vapour pressure	: < 0.001 hPa (20 °C) ca. 1.4 hPa (240 °C)
Relative vapour density	: not determined
Density	: ca. 0.98 g/cm ³ (20 °C)
Water solubility	: < 0.8 mg/l (20 °C; OECD Test Guideline 105) practically insoluble
Solubility in other solvents	: Alcohol: soluble Chloroform: easily soluble Diethylether: easily soluble Acetone: easily soluble
Partition coefficient: n-octanol/water	: log Pow 12.2 (calculated (citation from literature))
Self-ignition	: not pyrophoric
Auto-ignition temperature	: 608 °F (320 °C) (at 985 - 1,004 hPa, DIN 51794)
Decomposition temperature	: Not relevant
Viscosity, dynamic	: ca. 6,589 mPa.s (20 °C)
Viscosity, kinematic	: 5076 mm ² /s (20 °C; OECD Test Guideline 114) 701 mm ² /s (40 °C; OECD Test Guideline 114)

Other information

Explosive properties	: Not explosive
Oxidizing properties	: No data available
Refractive index	: 1.494 - 1.499 (589 nm, 20 °C)
Molecular weight	: 472.73 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No hazards to be specially mentioned.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Possible incompatibility with materials listed under section 10.5.
Conditions to avoid	: Heat
Incompatible materials	: Bases Strong acids Oxidizing agents

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

Iron salts
Silver salts
Powdered metal salts

Strong acids and strong bases
Strong oxidizing agents

Hazardous decomposition products : No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity : LD50 (Rat): > 10,000 mg/kg
(OECD Test Guideline 401)
: LD50 (Mouse): > 4,000 mg/kg
(OECD Test Guideline 401)
- Acute dermal toxicity : LD50 (Rat): > 3,000 mg/kg
- Skin irritation : No skin irritation (Rabbit, OECD Test Guideline 404)
: no phototoxic skin reaction (Guinea pig)
: Prolonged skin contact may cause skin irritation.
- Eye irritation : No eye irritation (Rabbit, OECD Test Guideline 405)
- Sensitisation : Does not cause skin sensitisation. (human)
: no photoallergenic skin reaction (Guinea pig)
- Genotoxicity in vitro : negative (Ames test, OECD Test Guideline 471)
: not genotoxic (In vitro cytogenicity study in mammalian cells,
OECD Test Guideline 473)
- Genotoxicity in vivo : not genotoxic (In vivo micronucleus test, Mouse, OECD Test
Guideline 474)
- Carcinogenicity : (Rat , OECD Test Guideline 453)
Animal testing did not show any carcinogenic effects.
- 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.
- NTP No component of this product present at levels greater than or

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

	equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive toxicity	: No toxicity to reproduction (Rat, OECD Test Guideline 415)
Teratogenicity	: not teratogenic NOAEL: > 1,600 mg/kg bw/d (Rat, OECD Test Guideline 414) : not teratogenic NOAEL: > 1,600 mg/kg bw/d (Rabbit, OECD Test Guideline 414)
STOT - single exposure (Acute exposure)	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	: NOAEL (Oral, Rat) : 2000 mg/kg bw/d Subacute toxicity study (28 days) (OECD Test Guideline 407) : NOAEL (Oral, Rat) : 500 mg/kg bw/d Sub-chronic toxicity study (90-day) (OECD Test Guideline 408)
STOT - repeated exposure	: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	: No aspiration toxicity classification

Further information**Product:**

Remarks : The product passes into and partly through the skin of pigs.

SECTION 12. ECOLOGICAL INFORMATION**Toxicity**

Toxicity to fish	: Oncorhynchus mykiss (rainbow trout) LC50 (96 h) > 100 mg/l (nominal concentration) (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	: Daphnia magna (Water flea) EC50 (48 h) > 100 mg/l (nominal concentration) (OECD Test Guideline 202)
Toxicity to algae	: Pseudokirchneriella subcapitata (microalgae) EC50 (72 h) > 100 mg/l (nominal concentration) (OECD Test Guideline 201)
Toxicity to bacteria	: Pseudomonas putida EC10 (0.5 h) > 10,000 mg/l (nominal concentration)

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

: activated sludge
EC20 (0.5 h) > 927 mg/l

Toxicity to fish (Chronic toxicity) : Oncorhynchus mykiss (rainbow trout)
NOEC (28 d) 100 mg/l
(nominal concentration)
(OECD Test Guideline 215)

Persistence and degradability

Biodegradability : Not readily biodegradable.
17 % (28 d)
(OECD Test Guideline 301F)

Bioaccumulative potential

Partition coefficient: n-octanol/water : log Pow 12.2 (calculated (citation from literature))

Mobility in soil

Distribution among environmental compartments : Adsorption, Soil
log Koc 7.14 (calculated value)

Other adverse effects**Product:**

Ozone-Depletion Potential : 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 information : There is no data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : User must determine if any wastes generated exhibit hazardous characteristics as per 40 CFR Part 261 or other national / local legislation.

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**International Regulations**

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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**

Not regulated as a dangerous good

Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

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 : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

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 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

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

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

US State Regulations**Massachusetts Right To Know**

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H- 7695-91-2
benzopyran-6-yl acetate

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

The components of this product are reported in the following inventories:

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
TECI	: On the inventory, or in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

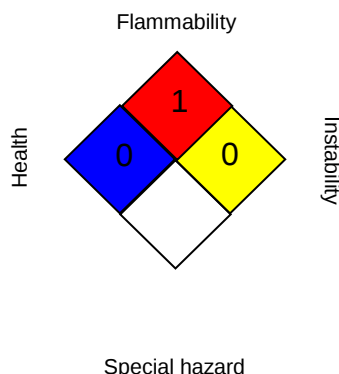
No substances are subject to TSCA 12(b) export notification requirements.

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

SECTION 16. OTHER INFORMATION**Further information****NFPA 704:****HMIS® IV:**

HEALTH	/	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

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 "0" 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

ACGIH = American Conference of Governmental Industrial Hygienists. CFR = Code of Federal Regulations. EPA = Environmental Protection Agency. NIOSH = National Institute of Occupational Safety and Health.

DL-alpha-Tocopheryl Acetate**0420085**

Version 5.2

Revision Date 12/04/2024

Date of last issue: 12/09/2022

al 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.

Revision Date : 12/04/2024

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.

US / EN