

DL-alpha-Tocopheryl Acetate**0420085**

Version 4.1

Revision Date 12/09/2022

Date of last issue: 10/09/2020

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 Canada

Address : 395 Waydom Drive
Ayr ON N0B 1E0

Telephone : (519) 624-2771
Telefax : (519) 623-4849

Emergency telephone number : 1-800-424-9300 (24 HR CHEMTREC, CA & US); Outside CA & US +1-703-527-3887 (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 pharmaceutical products
Ingredient for personal care products

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the Hazardous Products Regulations**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

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

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tate

Actual concentration or concentration range 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.
- Methods and materials for : Wipe up with absorbent material (e.g. cloth, fleece).

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containment and cleaning up

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)

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	184 °C (0.01 hPa)
	> 300 °C (1,013 hPa) with decomposition
Flash point	: 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))
Auto-ignition temperature	: not pyrophoric
Ignition temperature	: 320 °C (985 - 1,004 hPa, DIN 51794)
Thermal decomposition	: 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)
Explosive properties	: Not explosive
Oxidizing properties	: No data available

Other information

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

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Iron salts
Silver salts
Powdered metal salts

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)
- 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.
- 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 (A-
cute exposure) : The substance or mixture is not classified as specific target
organ toxicant, single exposure.

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- 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)
- Further information : The product passes into and partly through the skin of pigs.
- Aspiration toxicity : No aspiration toxicity classification

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)

: 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)

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Results of PBT and vPvB assessment

Assessment : The substance does not fulfill the PBT criteria.
: The substance does not fulfill the vPvB criteria.

Other adverse effects

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****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**TDG**

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION**Canadian lists**

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

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AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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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