

VITAMIN E (MIXED TOCOPHEROLS, NATURAL)

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SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:

VITAMIN E (MIXED TOCOPHEROLS, NATURAL)
Tocopherols; d-alpha-Tocopherol and mixed tocopherol concentrate; INS 306-309
CAS: 1406-18-4 (mixed tocopherols concentrate)

Other means of identification:

Not relevant

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Natural antioxidant for food, feed, nutraceutical and cosmetic formulations; dietary supplement raw material; stabiliser for edible oils and fats. For industrial/commercial user only.
Uses advised against: All uses not specified in this section or in section 7.3. Use beyond permitted food-additive/supplement limits laid down under applicable regulations.

1.3 Supplier's details:

SURAJ CHEMICALS
No 92, Govindappa Naicken Street, Shiva Complex, Chennai – 600001, Tamil Nadu, India
Tel: +91 - 7092722822, +91 - 9840284032 / +91 - 44 - 25393652, 42130281
Email: sales@surajchemicals.com | Website: www.surajchemicals.com
GST No: 33ACEPV8190L1ZZ

1.4 Emergency phone number:

Emergency Contact No: +91 - 7092722822, +91 - 9840284032

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Based on available data, mixed natural tocopherols do not meet the criteria for classification as hazardous.

Not classified as hazardous under GHS criteria (based on available data).

2.2 GHS label elements, including precautionary statements:

GHS: No signal word required

Hazard statements:

None (not classified).

Precautionary statements:

P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/eye protection when handling in bulk.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501: Dispose of contents/container in accordance with local regulations.

2.3 Other hazards which do not result in classification:

Oily liquid; spillage may create slip hazard on hard floors. Not a PBT or vPvB substance.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical description: Natural Mixed Tocopherols Concentrate (alpha-, beta-, gamma- and delta-tocopherol blend, typically derived from vegetable oil deodoriser distillate)
In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 1406-18-4	Mixed Tocopherols — Not classified	Typical value – refer to current specification sheet (common commercial grades: 50%, 70% or 95% total tocopherols, carrier oil balance)

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

3.2 Mixtures:

This product may be supplied as a concentrate blended with a vegetable oil carrier; exact assay is grade-dependent – refer to current specification sheet.

SECTION 4: FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

Not expected to cause harm under normal conditions of use. Request medical assistance if symptoms occur, showing this SDS.

By inhalation:

Not a likely route of exposure (low volatility liquid). If mist/vapour is inhaled and discomfort occurs, move to fresh air.

By skin contact:

Wash skin with soap and water. Remove contaminated clothing. Seek medical advice if irritation develops (unlikely).

By eye contact:

Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical advice if irritation persists.

By ingestion:

Rinse mouth with water. Not expected to require specific treatment given the product's use as a food/supplement ingredient; seek medical advice if large quantities are swallowed accidentally outside intended dosing.

4.2 Most important symptoms/effects, acute and delayed:

No significant adverse effects expected under normal conditions of use. See section 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Not relevant

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:
Suitable: Water spray/fog, foam, dry chemical powder, carbon dioxide (CO²).
Unsuitable: High-pressure water jet on a burning oil pool (may spread fire).

5.2 Specific hazards arising from the chemical:
Combustible liquid with a high flash point. Will not readily ignite under normal ambient conditions. On combustion may release carbon monoxide and carbon dioxide.

5.3 Special protective actions for fire-fighters:
Wear self-contained breathing apparatus and full protective clothing in case of a large fire. Cool fire-exposed containers with water spray.

Additional provisions:
Contain fire-fighting water/run-off for appropriate disposal.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
For non-emergency personnel:
Spilled material is slippery – avoid walking through spill. Use PPE described in section 8. Ventilate the area.
For emergency responders:
Wear appropriate PPE as per section 8. No special measures beyond routine good industrial hygiene practice.

6.2 Environmental precautions:
Prevent large spillages from entering drains or watercourses. Low environmental hazard expected for small quantities.

6.3 Methods and materials for containment and cleaning up:
Contain spillage with absorbent inert material (sand, vermiculite, absorbent granules). Collect into suitable labelled containers for recovery or disposal. Clean residual area with water and a mild detergent; avoid slip hazard.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. General precautions for safe use:
Handle with normal industrial hygiene practice. Avoid prolonged, unnecessary skin contact. Keep containers closed when not in use to minimise oxidation and contamination.
B. Technical recommendations for the prevention of fires and explosions:
No special precautions beyond normal good practice; product is not readily flammable under ambient storage conditions.
C. Technical recommendations on general occupational hygiene:
Do not eat, drink or smoke while handling in bulk industrial settings. Wash hands after handling.
D. Technical recommendations to prevent environmental risks:
Avoid release of bulk quantities to the environment.

7.2 Conditions for safe storage, including any incompatibilities:
A. Specific storage requirements:

Minimum Temp.	Ambient, cool storage preferred
Maximum Temp.	25°C (protect from heat; refrigeration may extend shelf life)
Maximum time	Typical value – refer to current specification sheet (commonly 12–24 months, unopened)

B. General conditions for storage:
Store in tightly closed, light-protected (amber/opaque) containers in a cool, dry place away from direct sunlight, heat and strong oxidising agents, to minimise oxidative degradation. Blanket with inert gas (nitrogen) for bulk storage where practical. For additional information see subsection 10.5.

7.3 Specific end use(s):
Used as an antioxidant/nutritional ingredient in food, feed, cosmetic and nutraceutical formulations. Except for the instructions already specified, no special recommendation is required.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:
No specific occupational exposure limit (OEL) has been established for mixed tocopherols under the Factories Act, 1948 (as amended).

Identification	Occupational Exposure Limit Type	Value
Mixed Tocopherols CAS: 1406-18-4	Not established	Not established

8.2 Appropriate engineering controls:
General ventilation is normally sufficient. Use local exhaust ventilation if mist is generated during processing (e.g., spraying, high-shear mixing).

B. Respiratory protection:
Not normally required under normal handling conditions.

C. Specific protection for the hands:
Chemical-resistant gloves (e.g., nitrile) recommended for prolonged or repeated handling.

D. Eye and face protection:
Safety glasses recommended when handling in bulk or where splashing may occur.

E. Bodily protection:
Standard industrial workwear; apron where splash exposure is likely.

F. Additional emergency measures:
Eyewash station and washing facilities should be available in the work area.

Environmental exposure controls:
Avoid large-scale release to the environment. See subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	
Physical state at 20°C	Liquid (viscous oil)
Appearance	Clear, viscous oily liquid
Color	Yellow to amber/brown
Odor	Faint, characteristic (mild)
Odour threshold	Not established

Volatility	
Boiling point at atmospheric pressure	>200°C (decomposes; low volatility)
Vapour pressure at 20°C / 50°C	Negligible
Evaporation rate at 20°C	Negligible
Product Description	
Density / Relative density at 20°C	~0.95–0.96 g/cm³
Dynamic / Kinematic viscosity	Typical value – refer to current specification sheet (viscous oil)
Concentration	Typical value – refer to current specification sheet
pH	Not relevant (water-insoluble oil)
Vapour density at 20°C	Not relevant
Partition coefficient n-octanol/water 20°C	Log Pow: ~10–12 (highly lipophilic)
Solubility in water at 20°C	Practically insoluble; soluble in oils, alcohol and organic solvents
Decomposition temperature	Typical value – refer to current specification sheet
Melting point/freezing point	Below 0°C (remains liquid/viscous at room temperature)
Flammability	
Flash Point	>200°C (closed cup, typical)
Flammability (solid, gas)	Not applicable (liquid); not readily flammable
Autoignition temperature	Not established
Lower / Upper flammability limit	Not established
Particle Characteristics	
Median equivalent diameter	Non-applicable (liquid)

9.2 Other information:

Explosive properties	Not explosive
Oxidising properties	Not oxidising – conversely, acts as a reducing antioxidant
Corrosive to metals	Not corrosive to metals
Heat of combustion	Typical value – refer to current specification sheet
Surface tension at 20°C	Typical value – refer to current specification sheet
Refraction index	Typical value – refer to current specification sheet

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity:**
Stable under normal conditions of use and storage. Acts as a reducing agent/antioxidant; gradually oxidises on prolonged exposure to air, light and heat, with darkening of colour and loss of potency.
- 10.2 Chemical stability:**
Chemically stable under the indicated conditions of storage, handling and use when protected from light, heat and oxygen.
- 10.3 Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions are not expected.

10.4 Conditions to avoid:

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Avoid prolonged exposure (oxidation)	Avoid high temperatures	Avoid direct, prolonged exposure (light sensitive)	Not particularly sensitive

10.5 Incompatible materials:

Strong Oxidisers	Strong Acids/Alkalis	Heat Sources	Light	Peroxides
Avoid contact	Avoid contact	Keep away	Protect from prolonged exposure	Avoid contact with strong peroxides

- 10.6 Hazardous decomposition products:**
None expected under normal conditions. Thermal decomposition at high temperature may generate oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects:**
Tocopherols (Vitamin E) have a very low order of acute toxicity and a long history of safe dietary and topical use.
- A. Ingestion (acute effect):**
Practically non-toxic; very low acute oral toxicity, consistent with its use as a dietary supplement within recommended intakes.
- B. Inhalation (acute effect):**
Not a likely route of exposure due to low volatility. Classification criteria for acute inhalation toxicity are not met based on available data.
- C. Contact with skin and eyes (acute effect):**
Not expected to be irritating under normal conditions of use; widely used in topical cosmetic formulations.
- D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity):**
Classification criteria for carcinogenicity, mutagenicity and reproductive toxicity are not met based on available data. IARC: Not listed.
- E. Sensitizing effects:**
Classification criteria for respiratory or skin sensitisation are not met based on available data.
- F. Specific target organ toxicity (STOT) – single exposure:**
Classification criteria are not met based on available data.
- G. Specific target organ toxicity (STOT) – repeated exposure:**
Classification criteria are not met based on available data.
- H. Aspiration hazard:**
Classification criteria are not met based on available data for this grade.

Product-specific toxicological information:

Identification	Acute Toxicity	Genus
Mixed Tocopherols	LD50 oral: >5000 mg/kg (practically non-toxic)	Rat

CAS: 1406-18-4	LD50 dermal: >2000 mg/kg	Rabbit
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SECTION 12: ECOLOGICAL INFORMATION

Not expected to be hazardous to the aquatic environment at use concentrations.

12.1 Toxicity:

Acute Toxicity	Species	Genus
Typical value – refer to current specification sheet	Non-applicable	Fish
Typical value – refer to current specification sheet	Non-applicable	Crustacean

12.2 Persistence and degradability:

Expected to be inherently biodegradable (natural lipid-soluble organic compound); not readily water-soluble, limiting aquatic exposure.

12.3 Bioaccumulative potential:

High log Pow suggests potential for bioaccumulation in lipid tissue; however, tocopherols are naturally metabolised and are essential dietary micronutrients, limiting net bioaccumulation risk.

12.4 Mobility in soil:

Koc	Henry	Dry Soil	Moist Soil
High (lipophilic)	Low	Low mobility	Low mobility

12.5 Results of PBT and vPvB assessment:

Does not meet PBT/vPvB criteria based on available data.

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Dispose of in accordance with local, state and national regulations. Where possible, recover/recycle. Do not discharge to drains or water courses in bulk. Empty containers may retain product residue – handle accordingly.
Refer to national and local regulations on waste management.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023):

14.1 UN number	Not regulated as dangerous goods
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by sea (IMDG 41-22):

14.1 UN number	Not regulated as dangerous goods
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	N/A
14.5 Marine pollutant	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by air (IATA/ICAO 2024):

14.1 UN number	Not regulated as dangerous goods
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances. Where used as a food/feed additive or supplement ingredient, compliance with FSSAI permitted limits for INS 306–309 (tocopherols) applies.

Other legislation:

Food Safety and Standards Act, 2006 and Rules/Regulations made thereunder (for food-grade use)
The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (not applicable – product not classified as hazardous)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Texts of the legislative phrases mentioned in sections 2 and 3:

Not classified – no hazard statements apply to this product.

Advice related to training:

Minimal training is recommended to familiarise staff handling this product with good industrial hygiene practice and the contents of this safety data sheet.

Principal bibliographical sources:

Published GHS classification references and standard commercial/regulatory SDS databases for Mixed Tocopherols (Vitamin E), CAS 1406-18-4.

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ICAO: International Civil Aviation Organisation | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | Log-POW: Octanol-water partition coefficient | Koc: Partition coefficient of organic carbon | IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET