

Safety Data Sheet

Section 1 Identification of Substance

Product Name

Natural Mixed Tocopherols
Natural Vitamin E

Recommended Use

Food/ nutraceutical supplements/cosmetics / personal care products /feed.

Manufacturer/supplier identification

Manufacturer: Shaanxi Healthful Bioengineering Co., Ltd.
Address: C1 Building Torch Industrial park, Chengnan Road, Yangling, China.
Phone: +86-29-85820130
Fax: +86-29-85820130-8008

Section 2 Hazards Identification

Low hazard for usual handling, store away from heat and direct sunlight.

Section 3 Compositions, Information on Ingredients

Mixed tocopherols is a pale yellow to brownish red, clear oily liquid, nearly odorless, and is composed of d-alpha tocopherol, d-beta tocopherol, d-gamma tocopherol and d-delta tocopherol, and derived from natural sources, i.e. from edible vegetable oil.

D-alpha tocopherol:	CAS No.: 59-02-9;	Chemical Formula: $C_{29}H_{50}O_2$;	Molecular Weight: 430.71
D-beta tocopherol:	CAS No.: 16698-35-4;	Chemical Formula: $C_{28}H_{48}O_2$;	Molecular Weight: 416.68
D-gamma tocopherol:	CAS No.: 54-28-4;	Chemical Formula: $C_{28}H_{48}O_2$;	Molecular Weight: 416.68
D-delta tocopherol:	CAS No.: 119-13-1;	Chemical Formula: $C_{27}H_{46}O_2$;	Molecular Weight: 402.65

Section 4 First Aid Measures

Skin contact: Brush off

Eye contact: Rinse immediately with tap water for 10 minutes –open eyelids forcedly

Inhalation: Remove the casualty to fresh air and keep him/her calm, consult physician

Note to physician: Treat symptomatically

Section 5 Fire-Fighting Measures

Suitable extinguishing media: Water spray, dry chemical, foam, CO_2

Special hazards: Consider dust explosion hazard, formation of acrid smoke and respiratory irritant fumes when heated to decomposition.

Protection of fire-fighters: Precipitate gases/vapors/mists with water spray

Section 6 Accidental Release Measures

Natural Mixed Tocopherols

Person-related precautionary measures: Do not inhale vapors/aerosols.

Environmental-protection measures: Do not allow to enter sewerage system.

Procedures for cleaning / absorption: Absorb material in sand or other suitable absorbent and place in container. Clean up affected area.

Section 7 Handling and Storage

Handling:

Technical measures: Processing in closed systems. Avoid dust formation; Consider dust explosion hazard. Take precautionary measures against electrostatic charging. Local exhaust ventilation is necessary.

Suitable materials: Stainless steel, aluminum, glass, polyethylene.

Storage:

Storage conditions: Cool, protected from light, protected from humidity.

Validity: 24 months in the unopened original container, after opening the container, the contents should be used within a short period.

Packaging materials: Tightly closed, stainless steel, aluminum, glass, polyethylene.

Section 8 Exposure Controls/Personal Protection

Personal protective equipment: Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: Required when vapors/aerosols are generated.

Eye protection: Required (safety glasses)

Hand protection: Use recommended industrial

Hygiene: Wash hands after working with substance. Change contaminated clothing. Wash hands after working with substance.

Section 9 Physical and Chemical Properties

Form: Clear oily liquid

Color: Pale yellow to brownish red

Odor: Nearly odorless

Melting point: No information available

Boiling point: > 300 °C

Ignition temperature: No information available

Flash point: No information available

Explosion limits: Lower not available

Upper not available

Density (20 °C): 0.92 g/cm³~ 0.96 g/cm³

Solubility in water (20 °C): Insoluble

Ether: Freely soluble

Thermal decomposition: > 300 °C

Section 10 Stability and Reactivity

Substances to be avoided: No information available.

Hazardous decomposition products: No information available.

Further information: Light-sensitive, stable under ordinary conditions of usage and storage.

Section 11 Toxicological Information

Acute toxicity: LD50>10,1000mg/kg (Oral, Mouse)

Mutagenicity: Not mutagenic (various in vivo and in vitro test systems)

Carcinogenicity: Not carcinogenic (several species)

Section 12 Ecological Information

Ecologic effects: Quantitative data on the ecological effect of this product is not available.

Further ecologic data: No ecological problems are to be expected when the product is handled and used with due care and attention.

Section 13 Disposal Considerations

Product: There are no uniform regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

Section 14 Transport Information

Not subject to transport regulations.

Section 15 Regulatory Information

Labeling: No labeling necessary for dangerous goods.

Section 16 Other Information

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.