

Safety Data Sheet Lutavit® E 50 S

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1. Identification

Product identifier used on the label

Lutavit® E 50 S

Recommended use of the chemical and restriction on use

Recommended use*: feed additive(s)

Unsuitable for use: Not intended for sale to or use by the general public.

Details of the supplier of the safety data sheet

Company: BASF CORPORATION

100 Park Avenue Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Synonyms: Preparation based on: 3,4-Dihydro-2,5,7,8-tetramethyl-2-(4,8,12-

trimethyltridecyl)-2H-benzopyran-6-yl acetate (Content (W/W): >= 50

%), Silicon dioxide.

2. Hazards Identification

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Combustible Dust Combustible Dust (1) Combustible Dust

Label elements

^{*} The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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Signal Word: Warning

Hazard Statement:

May form combustible dust concentration in air.

Hazards not otherwise classified

The product is under certain conditions capable of dust explosion.

3. Composition / Information on Ingredients

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Silica gel, precipitated, crystalline free

CAS Number: 112926-00-8 Content (W/W): 0.5 - 5.0%

Synonym: Silica gel, precipitated, crystalline free

Octadecanoic acid, 2,3-dihydroxypropyl ester

CAS Number: 123-94-4 Content (W/W): 0.5 - 5.0%

Synonym: Octadecanoic acid 2,3-dihydroxypropyl ester; Glycerol stearate, pure

The actual concentration is withheld as a trade secret.

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

If on skin:

Wash thoroughly with soap and water

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Rinse mouth and then drink 200-300 ml of water.

Most important symptoms and effects, both acute and delayed

Symptoms: No data available.

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Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: water spray, carbon dioxide, dry powder, foam

Unsuitable extinguishing media for safety reasons: water jet

Additional information:

Avoid whirling up the material/product because of the danger of dust explosion.

Special hazards arising from the substance or mixture

Hazards during fire-fighting: harmful vapours, carbon oxides Generation of fumes/fog. Dust explosion hazard.

Dust explosion hazard.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Cool endangered containers with water-spray.

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental release measures

Further accidental release measures:

Dust can form an explosive mixture with air.

Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures, see section 8. Avoid dust formation.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

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Methods and material for containment and cleaning up

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Dispose of absorbed material in accordance with regulations. Avoid raising dust.

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Sweep/shovel up.

Place into suitable container for disposal. Nonsparking tools should be used.

7. Handling and Storage

Precautions for safe handling

Avoid dust formation. Take precautionary measures against static discharges. Provide exhaust ventilation if dust is formed.

Protection against fire and explosion:

Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 660 (2025) Standard for Combustible Dust and Particulate Solids. NFPA 660 is a combination of Standards NFPA 61 (Agriculture and Food), NFPA 484 (Metals), NFPA 652 (Fundamentals of Combustible Dusts), NFPA 654 (Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids), NFPA 65 (Sulfur), and NFPA 664 (Woodworking/Processing). Consult NFPA 660 standard for relevant commodity-specific and general safety information.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep at temperature not exceeding 30 °C. Keep container tightly closed and dry. Protect from the effects of light.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

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Silica gel, precipitated, OSHA Z3: TWA value 20 millions of particles per cubic foot

crystalline free of ai

OSHA Z3: TWA value 0.8 mg/m3; The exposure limit is

calculated from the equation, 80mg/m3)/(%SiO2), using a value of 100% SiO2. Lower percentages

of SiO2 will yield higher exposure limits.

ACGIH, US: TWA value 3 mg/m3 Respirable particles;
ACGIH, US: TWA value 10 mg/m3 Inhalable particles;
OSHA Z3: TWA value 15 millions of particles per cubic foot

of air Respirable fraction;

OSHA Z3: TWA value 15 mg/m3 Total dust;

OSHA Z3: TWA value 50 millions of particles per cubic foot

of air Total dust;

OSHA Z3: TWA value 5 mg/m3 Respirable fraction ; NIO ID, US: IDLH 3,000 mg/m3 ; IDLH values based on the

1994 Revised Criteria

Octadecanoic acid, 2,3- ACGIH, US: TWA value 3 mg/m3 Respirable fraction; dihydroxypropyl ester ACGIH, US: TWA value 10 mg/m3 Inhalable fraction;

Advice on system design:

Ensure adequate ventilation. Local exhaust ventilation preferred. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

Respiratory protection:

Breathing protection if breathable aerosols/dust are formed. Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

9. Physical and Chemical Properties

Physical state: solid

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Form: powder

Odour: almost odourless
Odour threshold: not determined
Colour: white to off-white
pH value: approx. 6 - 7

(approx. 100 g/l, approx. 20 °C)

(as a dispersion)

Melting point: not determined Freezing point: not determined Boiling point: not applicable

Flash point: not applicable, the product is a solid

Flammability: not highly flammable (Directive

Lower explosion limit: For solids not relevant for

classification and labelling.

Upper explosion limit: For solids not relevant for

classification and labelling.

Vapour pressure: not applicable

Density: No information is available for the

absolute density. Instead the bulk density was determined as a more

92/69/EEC, A.10)

relevant value. approx. 350 kg/m3

Relative vapour density: not applicable

Partitioning coefficient n- not applicable for mixtures

octanol/water (log Pow):

Bulk density:

Thermal decomposition: >= 125 °C (DSC (DIN 51007))
Viscosity, dynamic: not applicable, the product is a solid
not applicable, the product is a solid

Solubility in water: (approx. 20 °C)

sparingly soluble, dispersible

Molecular weight: not applicable Evaporation rate: negligible

Particle characteristics

No applicable information available.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Minimum ignition energy:

The product is capable of dust explosion.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

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Peroxides: The product does not contain peroxides.

Possibility of hazardous reactions

Dust explosion hazard.

Conditions to avoid

Avoid dust formation. Avoid electro-static charge. See SDS section 7 - Handling and storage. Avoid all sources of ignition: heat, sparks, open flame.

Incompatible materials

Alkalines, atmospheric moisture

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

>= 125 °C (DSC (DIN 51007))

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion.

<u>Oral</u>

Information on: Tocopheryl Acetate

Type of value: LD50 Species: rat (male/female)

Value: > 10,000 mg/kg (similar to OECD guideline 401)

No mortality was observed.

Inhalation

No data available.

<u>Dermal</u>

No data available.

Assessment other acute effects

Based on available data, the classification criteria are not met.

Irritation / corrosion

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Assessment of irritating effects: Not irritating to eyes and skin.

Skin

Information on: Tocopheryl Acetate

Species: rabbit Result: non-irritant

Method: OECD Guideline 404

<u>Eye</u>

Information on: Tocopheryl Acetate

Species: rabbit Result: non-irritant

Method: OECD Guideline 405

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Information on: Tocopheryl Acetate

photo-allergy test Species: guinea pig Result: Non-sensitizing.

Method: other

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Based on available data, the classification criteria are not met.

Information on: Tocopheryl Acetate

Assessment of repeated dose toxicity: Causes mortality through prolonged or repeated exposure.

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Experimental/calculated data: No data available.

Genetic toxicity

Assessment of mutagenicity: Based on available data, the classification criteria are not met.

Information on: Tocopheryl Acetate

Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and

mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity: Based on available data, the classification criteria are not met.

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Information on: Tocopheryl Acetate

Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by

feed, a carcinogenic effect was not observed.

Experimental/calculated data: No data available.

Reproductive toxicity

Assessment of reproduction toxicity: Based on available data, the classification criteria are not met.

Information on: Tocopheryl Acetate

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility

impairing effect.

Teratogenicity

Assessment of teratogenicity: Based on available data, the classification criteria are not met.

Information on: Tocopheryl Acetate

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen

in animal studies.

Other Information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

Toxicity to fish

Information on: Tocopheryl Acetate

LC50 (96 h) > 11 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)

The statement of the toxic effect relates to the analytically determined concentration. No toxic effects occur within the range of solubility.

Aquatic invertebrates

Information on: Tocopheryl Acetate

EC50 (48 h) > 20.6 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The statement of the toxic effect relates to the analytically determined concentration. No toxic effects occur within the range of solubility.

Assessment of terrestrial toxicity

No data available.

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Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Information on: Tocopheryl Acetate

DIN EN ISO 8192 aquatic

activated sludge, domestic/EC20 (30 min): > 927 mg/l

The details of the toxic effect relate to the nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

The product is not very soluble in water and can thus be removed from water mechanically in suitable effluent treatment plants.

Assessment biodegradation and elimination (H2O)

Information on: Tocopheryl Acetate

Moderately/partially biodegradable. Not readily biodegradable (by OECD criteria). The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

Bioaccumulative potential

Assessment bioaccumulation potential

Accumulation in organisms is not to be expected.

Bioaccumulation potential

No data available.

Assessment bioaccumulation potential

Information on: Tocopheryl Acetate

Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is expected.

Information on: Tocopheryl Acetate

The substance will slowly evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is expected.

Additional information

Add. remarks environm. fate & pathway:

The product has not been tested. The statements on environmental fate and pathway have been derived from the properties of the individual components.

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Other ecotoxicological advice:

No data available.

The product has not been tested. The statement has been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:

Observe national and local legal requirements.

Container disposal:

Dispose of in accordance with national, state and local regulations.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Feed TSCA, US released / exempt

Chemical TSCA, US blocked / not listed

Chemical TSCA, US

Contains non-registered, non-listed substance.

Individual registration may be required.

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK CAS Number Chemical name

PA 112926-00-8 Silica gel, precipitated, crystalline free

NFPA Hazard codes:

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Health: 0 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 0 Flammability: 1 Physical hazard: 0

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2025/08/06

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END OF DATA SHEET