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Safety Data Sheet
Lutavit® E 50

1. Identification

Product identifier used on the label

Lutavit® E 50

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.

* 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.

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: 3,4-Dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-yl acetate (Content (W/W): >= 50)

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

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

Silicon dioxide
CAS Number: 7631-86-9
Content (W/W): 45.0 - 70.0%
Synonym: No data available.

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.

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, foam, dry powder, carbon dioxide

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. The substances/groups of substances mentioned can be released in case of fire. Dust explosion hazard.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

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

Dust can form an explosive mixture with air. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental release measures

Further accidental release measures:
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.

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.

Nonsparking tools should be used.

7. Handling and Storage

Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and 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. 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.
Keep container tightly sealed. Protect contents from the effects of light.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Silicon dioxide	ACGIH, US:	TWA value 10 mg/m3 Inhalable particles ;
	ACGIH, US:	TWA value 3 mg/m3 Respirable particles ;
	OSHA Z3:	TWA value 15 mg/m3 Total dust ;
	OSHA Z3:	TWA value 5 mg/m3 Respirable fraction ;
	OSHA Z3:	TWA value 50 millions of particles per cubic foot of air Total dust ;
	OSHA Z3:	TWA value 15 millions of particles per cubic foot of air Respirable fraction ;
	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.
	OSHA Z3:	TWA value 20 millions of particles per cubic foot of air ;
	NIO ID, US:	IDLH 3,000 mg/m3 ; IDLH values based on the 1994 Revised Criteria

Advice on system design:
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 dusts are formed. Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:
Chemical resistant protective gloves, Suitable materials

Eye protection:
Wear safety goggles (chemical goggles) if there is potential for airborne dust exposures.

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	
Form:	powder	
Odour:	almost odourless	
Odour threshold:	not determined	
Colour:	white to off-white	
pH value:	insoluble	
Melting point:	not relevant	
Freezing point:	not relevant	
Boiling point:	not applicable	
Flash point:	not applicable, the product is a solid	
Flammability:	not highly flammable	(Directive 92/69/EEC, A.10)
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
SADT:	> 75 °C Heat accumulation / Dewar 500 ml (SADT, UN-Test H.4, 28.4.4)	
Vapour pressure:	not applicable	
Density:	No information is available for the absolute density. Instead the bulk density was determined as a more relevant value.	
Bulk density:	approx. 450 - 600 kg/m3	
Relative vapour density:	The product is a non-volatile solid.	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Thermal decomposition:	>= 175 °C (DSC (DIN 51007))	
Viscosity, dynamic:	not applicable, the product is a solid	
Viscosity, kinematic:	not applicable, the product is a solid	
Solubility in water:	insoluble	

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.

Possibility of hazardous reactions
Dust can form an explosive mixture with air.

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:
>= 175 °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. The product has not been tested. The statement has been derived from the properties of the individual components.

Oral

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.

Information on: Silica
Type of value: LD50
Species: rat
Value: > 5,000 mg/kg (OECD Guideline 401)

Inhalation
No data available.

Dermal
No data available.

Assessment other acute effects
Based on available data, the classification criteria are not met. The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion
Assessment of irritating effects: Not irritating to the eyes. Not irritating to the skin. The product has not been tested. The statement has been derived from the properties of the individual components.

Skin

Information on: Tocopheryl Acetate
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye

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
Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Information on: Silica

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.

Information on: Silica

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

Carcinogenicity
Assessment of carcinogenicity: In long-term animal studies in which the substance was given in high doses by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from the properties of the individual components.

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.

Information on: Silica

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

Teratogenicity
Assessment of teratogenicity: Based on the ingredients, there is no suspicion of a teratogenic effect.

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

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.

Information on: Silica
LC50 (96 h) > 10,000 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EWG, C.1)

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.

Information on: Silica
EC50 (24 h) > 1,000 mg/l, Daphnia magna (OECD Guideline 202, part 1)

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.

Information on: Silica
OECD Guideline 209 EC50 (3 h): > 2,500 mg/l

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.

Information on: Silica

Bioaccumulative potential

Assessment bioaccumulation potential

Information on: Tocopheryl Acetate

Accumulation in organisms is not to be expected.

Information on: Silica

The product will not be readily bioavailable due to its consistency and insolubility in water.

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.

Information on: Silica

Study scientifically not justified.

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.

13. Disposal considerations

Waste disposal of substance:
Observe national and local legal requirements.

Container disposal:
Uncontaminated packaging can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

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	released / listed
Chemical	TSCA, US	

All substances are TSCA listed and active.

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

CERCLA RQ	CAS Number	Chemical name
5000 LBS	67-56-1	Methanol

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including METHANOL, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:
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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