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1. Identification

Product identifier used on the label

Dry Vitamin E-Acetate 50% DC/GFP

Recommended use of the chemical and restriction on use

Recommended use*: Vitamin

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

CHEMTREC: 1-800-424-9300

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

Other means of identification

Synonyms:

Dry Vitamin E-Acetate 50% DC/GFP

2. Hazards Identification

According to Regulation 2012 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:

^{*} The "Recommended use" identified for this product is provided solely to comply with a US 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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May form combustible dust concentration in air.

Hazards not otherwise classified

The product is under certain conditions capable of dust explosion.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

CAUTION:

Contact with the eyes or skin may cause mechanical irritation.

MAY CAUSE RESPIRATORY TRACT IRRITATION.

CAN FORM EXPLOSIVE DUST-AIR MIXTURES.

Avoid contact with the skin, eyes and clothing.

Avoid inhalation of dusts.

Ensure adequate ventilation.

Wear a NIOSH-certified (or equivalent) particulate respirator.

Wear NIOSH-certified chemical goggles.

Wear chemical resistant protective gloves.

Wear protective clothing.

Eye wash fountains and safety showers must be easily accessible.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name	
57-50-1	10.0 - 30.0 %	Sucrose	
9005-25-8	5.0 - 15.0 %	starch	

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name
7695-91-2	40.0 - 60.0 %	Tocopheryl Acetate
57-50-1	10.0 - 30.0 %	Sucrose
68070-94-0	10.0 - 30.0 %	Modified Corn Starch
9005-25-8	5.0 - 15.0 %	starch
7732-18 - 5	1.0 - 5.0 %	Water

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

If on skin:

Wash thoroughly with soap and water. If irritation develops, seek medical attention.

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If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention,

if swallowed:

Rinse mouth and then drink plenty of water. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Seek medical attention if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms: No significant symptoms are expected due to the non-classification of the product. Hazards: No hazard is expected under intended use and appropriate handling.

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:

carbon oxides

Evolution 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:

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.

Further accidental release measures:

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result

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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

Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation.

Use personal protective clothing. Avoid dust formation.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of. For large amounts: Contain with dust binding material and dispose of.

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

Nonsparking tools should be used.

7. Handling and Storage

Precautions for safe handling

Ensure adequate ventilation. Avoid the formation and deposition of dust.

Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.

Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.

Protection against fire and explosion:

Avoid whirling up the material/product because of the danger of dust 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 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and in a cool place.

Storage stability:

Storage temperature: <= 25 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Sucrose OSHA PEL PEL 5 mg/m3 Respirable fraction; PEL 15

mg/m3 Total dust; TWA value 15 mg/m3 Total dust; TWA value 5 mg/m3 Respirable fraction

:

ACGIH TLV TWA value 10 mg/m3

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starch

OSHA PEL

PEL 5 mg/m3 Respirable fraction; PEL 15

mg/m3 Total dust;

ACGIH TLV

TWA value 10 mg/m3;

Advice on system design:

Provide adequate exhaust ventilation to control work place concentrations. 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:

Wear chemical resistant protective gloves., Consult with glove manufacturer for testing data.

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:

Avoid inhalation of dust. Avoid contact with the skin, eyes and clothing. Wear protective clothing as necessary to prevent contact. Handle in accordance with good industrial hygiene and safety practice. 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

Form:

powder

Odour:

faint odour, characteristic

Odour threshold:

white to cream

Colour:

1

pH value:

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Melting point: Boiling point:

not determined not applicable

not determined

Flash point:

not applicable, the product is a solid

Flammability:

No data available.

Flammability of Aerosol

Products:

not applicable, the product does not form

flammable aerosoles)

Lower explosion limit:

For solids not relevant for classification

and labelling.

Upper explosion limit:

For solids not relevant for classification

and labelling.

Autoignition:

approx. 186 °C

Vapour pressure:

not determined

Relative density:

Study does not need to be conducted.

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Bulk density:

approx, 0.55

g/cm3

Vapour density:

Partitioning coefficient n-

octanol/water (log Pow):

Self-ignition temperature:

approx. 160 °C

(Directive 84/449/EEC, A.16) Test was carried out in cubic wire basket with 10

not applicable for mixtures

cm length.

Thermal decomposition:

Viscosity, dynamic: Solubility in water: Evaporation rate:

not determined

not applicable, the product is a solid

sparingly soluble

not applicable

negligible

10. Stability and Reactivity

Reactivity

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties: not fire-propagating

Minimum ignition energy: approx, 100 - 300 mJ

Chemical stability

Possibility of hazardous reactions

Dust explosion hazard.

Conditions to avoid

See MSDS section 7 - Handling and storage. Avoid dust formation. Avoid electro-static charge.

Incompatible materials

No substances known that should be avoided.

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

not determined

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

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

Information on: Tocopheryl Acetate

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

single skin contact.

Oral

Type of value: ATE Value: > 5,000 mg/kg

Information on: Tocopheryl Acetate

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

Value: > 10,000 mg/kg (BASF-Test)

Inhalation

Type of value: ATE Value: > 5.0000 mg/l Determined for dust

Dermai

Type of value: ATE Value: > 5,000 mg/kg

Irritation / corrosion

Assessment of irritating effects: Not irritating to eyes and skin. Inhalation of dust causes slight irritation of the respiratory tract.

Information on: Tocopheryl Acetate

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

<u>Skin</u>

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

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.

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Information on: Tocopheryl Acetate

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

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

Genetic toxicity

Assessment of mutagenicity: Most of the results from the available studies show no evidence of a mutagenic effect.

Information on: Tocopheryl Acetate

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

Carcinogenicity

Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect.

Information on: Tocopheryl Acetate

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.

Reproductive toxicity

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

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 the ingredients, there is no suspicion of a teratogenic effect.

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.

Symptoms of Exposure

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No significant symptoms are expected due to the non-classification of the product.

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.

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.

Elimination information

Information on: Tocopheryl Acetate

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30 - 40 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Bioaccumulative potential

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.

13. Disposal considerations

Waste disposal of substance:

Observe national and local legal requirements.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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:

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Food TSCA, US released / exempt

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Fire (Combustible Dust):

State regulations

State RTK CAS Number Chemical name

MA, PA 57-50-1 Sucrose MA, PA 9005-25-8 starch

NFPA Hazard codes:

Health: 1 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 1 Flammability: 1 Physical hazard:0

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2015/03/23

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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