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1. Identification

Product identifier used on the label

Linalyl Acetate

Recommended use of the chemical and restriction on use

Recommended use*: Chemical, Chemical for detergents, Cosmetic and oral care chemical, flavoring substance

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

1 10111a111 1 a1k, 143 07 932, 03A

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: Linalyl acetate

2. Hazards Identification

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

Classification of the product

Flam. Liq. 4 Flammable liquids Skin Corr./Irrit. 2 Skin corrosion/irritation

Eye Dam./Irrit. 2B Serious eye damage/eye irritation

Skin Sens. 1 Skin sensitization

^{*} 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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Aquatic Acute 3 Hazardous to the aquatic environment - acute

Label elements

Pictogram:



Signal Word: Warning

Hazard Statement:

H227 Combustible liquid. H320 Causes eve irritation. H315 Causes skin irritation.

May cause an allergic skin reaction. H317

H402 Harmful to aquatic life.

Precautionary Statements (Prevention):

Wear protective gloves and eye protection or face protection. P280

P261 Avoid breathing mist or vapour or spray.

P210 Keep away from heat, hot surfaces, sparks, open flames and other

ignition sources. No smoking.

P273 Avoid release to the environment.

Contaminated work clothing should not be allowed out of the workplace. P272

P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical attention.

P332 + P313 If skin irritation occurs: Get medical attention.

P362 + P364 Take off contaminated clothing and wash it before reuse. P337 + P313 If eye irritation persists: Get medical attention.

P370 + P378 In case of fire: Use extinguishing powder, foam or CO2 for extinction.

Precautionary Statements (Storage):

P403 Store in a well-ventilated place.

Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

No data available.

3. Composition / Information on Ingredients

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

Linalyl acetate

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Content (W/W): 75.0 - 100.0%

Synonym: 3,7-Dimethyl-1,6-octadien-3-yl acetate; Linalyl acetate

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing immediately and clean before re-use or dispose it if necessary.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

lf on skin:

Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Seek medical attention.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. If irritation develops, seek medical attention.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Information on: Linalyl acetate

Symptoms: Overexposure may cause:, Eye irritation, skin irritation, erythema, allergic contact

dermatitis, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: dry powder, foam, carbon dioxide

Unsuitable extinguishing media for safety reasons: water

Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon oxides, harmful vapours

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The substances/groups of substances mentioned can be released in case of fire. Combustible Liquid

Advice for fire-fighters

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

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

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Cool endangered containers with water-spray.

Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective clothing. Information regarding personal protective measures, see section 8. Do not breathe vapour/spray. Avoid contact with the skin, eyes and clothing. Avoid all sources of ignition: heat, sparks, open flame.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For large amounts: Dike spillage. Cover with blanket of foam (alcohol-resistant foam). Pump off product.

For residues: Contain with absorbent material (e.g. sand, silica gel, acid binder, general purpose binder, sawdust).

Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Wear suitable protective clothing and eye/face protection. Avoid contact with the skin, eyes and clothing. Keep container tightly sealed. This product may cause irritations; wash your hands after every contact.

Protection against fire and explosion:

The product is combustible. Avoid all sources of ignition: heat, sparks, open flame. Take precautionary measures against static discharges. If exposed to fire, keep containers cool by spraying with water. Vapours may form explosive mixture with air.

Conditions for safe storage, including any incompatibilities

Odour-sensitive: Segregate from products releasing odours.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Protect against heat. Protect contents from the effects of light.

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8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

Advice on system design:

Ensure adequate ventilation.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) respirator as necessary.

Hand protection:

Wear impermeable chemical resistant protective gloves.

Eye protection:

Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

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. Avoid contact with the skin, eyes and clothing. 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

Form: liquid Odour: sweetish Odour threshold: < 100 ppm Colour: colourless

pH value:

(approx. 23 °C)

-100 °C Melting point: (OECD Guideline

102)

102)

-112 °C (OECD Guideline glass transition

temperature:

Freezing point: No data available. 220 °C Boiling point:

(1,013.25 hPa) Literature data.

85 °C

Flash point: (closed cup)

Literature data.

(derived from flash Flammability: Combustible Liquid

point)

0.9 %(V) Lower explosion limit:

(117.5°C)

Upper explosion limit: 4 %(V)

(117.5°C)

270 °C Autoignition: (Directive

84/449/EEC, A.15)

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Vapour pressure: 1 mbar

(20 °C) 2 mbar (50 °C)

Density: 0.9018 g/cm3

(20 °C)

Literature data.

Relative density: 0.9018

(20°C)

Literature data.

Vapour density: > 1 (calculated)

(20°C)

Heavier than air.

Partitioning coefficient n- 3.9 (OECD Guideline

octanol/water (log Pow): (25 °C) 107)

Self-ignition Based on its structural properties the temperature: product is not classified as self-

igniting.

Thermal decomposition: 220 °C (DSC (DIN 51007))

Viscosity, dynamic: 2.50 mPa.s (OECD 114)

(20 °C)

The value was determined by calculation from the detected

kinematic viscosity.

Viscosity, kinematic: 2.77 mm2/s (OECD 114)

(20°C)

Particle size: The substance / product is marketed

or used in a non solid or granular

form.

Solubility in water: 40 mg/l

(20°C)

slow decomposition

Solubility (qualitative): soluble

solvent(s): organic solvents,

Molar mass: 196.29 g/mol

Evaporation rate: Value can be approximated from

Henry's Law Constant or vapor

pressure.

10. Stability and Reactivity

Reactivity

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

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

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

Formation of Remarks: Forms no flammable gases in the

flammable gases: presence of water.

Chemical stability

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

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Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

Conditions to avoid

Avoid electro-static discharge. Avoid all sources of ignition: heat, sparks, open flame.

Incompatible materials

acids

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products known.

Thermal decomposition: 220 °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. Virtually nontoxic after a single skin contact.

Oral

Type of value: LD50

Species: rat

Value: > 9,000 mg/kg (BASF-Test)

No mortality was observed.

Inhalation

No data available.

Dermal

Type of value: LD50 Species: rabbit Value: > 5,000 mg/kg

Assessment other acute effects

Assessment of STOT single:

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

Irritation / corrosion

Assessment of irritating effects: Skin contact causes irritation. Eye contact causes irritation.

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<u>Skin</u>

Species: rabbit Result: Irritant.

Method: OECD Guideline 404

Eye

Species: rabbit

Result: Slightly irritating. Method: OECD Guideline 405

The product has not been tested. The statement has been derived from substances/products of a

similar structure or composition.

Sensitization

Assessment of sensitization: Caused skin sensitization in animal studies.

Mouse Local Lymph Node Assay (LLNA)

Species: mouse Result: sensitizing

Method: OECD Guideline 429

Aspiration Hazard

No data available.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Effects on the kidney of male rats were detected after repeated exposure. These effects are specific for the male rat and are known to be of no relevance to humans. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Genetic toxicity

Assessment of mutagenicity: Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: No reliable data was available concerning carcinogenic activity. Study does not need to be conducted.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

<u>Teratogenicity</u>

Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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Toxicity

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Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish

LC50 (96 h) 11 mg/l, Cyprinus carpio (OECD Guideline 203, Flow through.)

The statement of the toxic effect relates to the analytically determined concentration. The product may hydrolyse. The test result maybe partially due to degradation products.

Aquatic invertebrates

EC50 (48 h) 15 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The details of the toxic effect relate to the nominal concentration. The product may hydrolyse. The test result maybe partially due to degradation products.

Aquatic plants

EC50 (72 h) 62 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static) The details of the toxic effect relate to the nominal concentration. The product may hydrolyse. The test result maybe partially due to degradation products.

Chronic toxicity to fish

Study scientifically not justified.

Chronic toxicity to aquatic invertebrates

Study scientifically not justified.

Assessment of terrestrial toxicity

No data available concerning terrestrial toxicity.

Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 8192 aerobic

activated sludge, domestic/EC20 (30 min): > 1,000 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Readily biodegradable (according to OECD criteria).

Elimination information

70 - 80 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Assessment of stability in water

In contact with water the substance will hydrolyse rapidly.

Information on Stability in Water (Hydrolysis)

 $t_{1/2}$ < 1 d, (Directive 92/69/EEC, C.7, pH 7)

Bioaccumulative potential

Assessment bioaccumulation potential

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Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

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

Adsorption to solid soil phase is not expected.

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

Classified as combustible liquid in containers greater than 119

gallons.

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

Further information

The following classification applies when exceeding 119 gallons.

Land Transport USDOT: NA1993 COMBUSTIBLE LIQUID, N.O.S. (LINALYLACETATE) PG III.

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

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

NFPA Hazard codes:

Health: 2 Fire: 2 Reactivity: 0 Special:

HMIS III rating

Health: 2 Flammability: 2 Physical hazard: 0

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Assessment of the hazard classes according to UN GHS criteria (most recent version):

Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2B	Serious eye damage/eye irritation
Flam. Liq.	4	Flammable liquids
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Skin Sens.	1B	Skin sensitization

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2023/05/12

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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END OF DATA SHEET