

Revision date: 2025/08/18 Page: 1/12
Version: 6.0 (30035070/SDS GEN US/EN)

1. Identification

Product identifier used on the label

Geraniol 60

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

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: Reaction mass of 2,6-Octadien-1-ol, 3,7-dimethyl-, (E) and 2,6-

Octadien-1-ol, 3,7-dimethyl-, (Z)-

2. Hazards Identification

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

Classification of the product

Skin Sens. 1 Skin sensitization
Eye Dam. 1 Serious eye damage

Skin Irrit. 2 Skin irritation

Aquatic Acute 2 Hazardous to the aquatic environment - acute

^{*} 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.

Revision date: 2025/08/18 Page: 2/12 Version: 6.0 (30035070/SDS GEN US/EN)

Label elements

Pictogram:





Signal Word:

Danger

Hazard Statement:

H318 Causes serious eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H401 Toxic to aquatic life.

Precautionary Statements (Prevention):

P280 Wear protective gloves and eye protection or face protection.

P261 Avoid breathing mist or vapour or spray.
P273 Avoid release to the environment.

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

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.

P310 Immediately call a POISON CENTER or physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P362 + P364 Take off contaminated clothing and wash it before reuse.

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 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

2,6-Octadien-1-ol, 3,7-dimethyl-, (E)-

CAS Number: 106-24-1 Content (W/W): 60.0 - 80.0%

Synonym: (E)-3,7-Dimethyl-2,6-octadien-1-ol

2,6-Octadien-1-ol, 3,7-dimethyl-, (Z)-

CAS Number: 106-25-2 Content (W/W): 15.0 - 40.0%

Synonym: (Z)-3,7-Dimethyl-2,6-octadien-1-ol; Nerol

6-Octen-1ol,3,7-dimethyl

Revision date: 2025/08/18 Page: 3/12 Version: 6.0 (30035070/SDS GEN US/EN)

> CAS Number: 106-22-9 Content (W/W): 0.5 - 5.0%

Synonym: 3,7-Dimethyl-6-octen-1-ol; Citronellol

3.7-dimethyl-2.6-octadien-1-al

CAS Number: 5392-40-5 Content (W/W): 0.1 - 1.5%

Synonym: 3,7-Dimethyl-2,6-octadienal; Citral

The actual concentration is withheld as a trade secret.

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:

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

If on skin:

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

If in eves:

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:

Rinse mouth and then drink 200-300 ml of water. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Seek medical attention.

Most important symptoms and effects, both acute and delayed

Information on: 2,6-Octadien-1-ol, 3,7-dimethyl-, (E)-

Symptoms: Overexposure may cause:, corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, 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.

Revision date: 2025/08/18 Page: 4/12 Version: 6.0 (30035070/SDS GEN US/EN)

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

water spray, dry powder, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons: water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon oxides, harmful vapours

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

Advice for fire-fighters

Protective equipment for fire-fighting:

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

Use personal protective clothing. Information regarding personal protective measures, see section 8. Ensure adequate ventilation. Do not breathe vapour/spray. Avoid contact with the skin, eyes and clothing.

Environmental precautions

May be harmful to the aquatic environment. Prevent entry into drains and surface waters. Inform authorities in the event of product spillage to water courses or sewage systems.

Methods and material for containment and cleaning up

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

For large amounts: Dike spillage. Pump off product.

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:

Revision date: 2025/08/18 Page: 5/12 Version: 6.0 (30035070/SDS GEN US/EN)

Take precautionary measures against static discharges. Avoid all sources of ignition: heat, sparks, open flame.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place. Protect from the effects of light.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

3,7-dimethyl-2,6-octadien- ACGIH, US: TWA value 5 ppm Inhalable fraction and vapor; ACGIH, US: Skin Designation Inhalable fraction and vapor;

Danger of cutaneous absorption

ACGIH, US: Skin Designation Inhalable fraction and vapor;

Danger of cutaneous absorption

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Wear a NIOSH-certified (or equivalent) respirator as necessary.

Hand protection:

Wear 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. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Avoid contact with the skin, eyes and clothing. 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: liquid
Form: liquid
Odour: flowery
Odour threshold: < 100 ppm
Colour: colourless
pH value: not applicable

Revision date: 2025/08/18 Page: 6/12 (30035070/SDS GEN US/EN) Version: 6.0

Melting temperature: < -15 °C

(1,013 hPa)

The statements are based on the

properties of the individual

components.

Freezing point: No data available. Boiling point: 225 - 230 °C

(1,008 - 1,013 hPa)

The statements are based on the properties of the individual

components.

107 - 108 °C Flash point: (Directive

> The product has not been tested. The 92/69/EEC, A.9) statement has been derived from the

properties of the individual

components.

Flammability: hardly combustible (derived from flash

point)

(Directive

(calculated)

117)

(OECD Guideline

Lower explosion limit: For liquids not relevant for

classification and labelling. The lower explosion point may be 5 - 15 °C

below the flash point.

Upper explosion limit: For liquids not relevant for

classification and labelling.

Autoignition: 246 - 250 °C

> The product has not been tested. The 92/69/EEC, A.15)

statement has been derived from the

properties of the individual

components.

0.000076 - 0.01 hPa Vapour pressure:

(20°C)

The product has not been tested. The statement has been derived from the

properties of the individual

components.

Density: 0.87 - 0.89 g/cm3

(20°C)

The statements are based on the properties of the individual

components.

Relative density: 0.87 - 0.89

(20°C)

Literature data.

Relative vapour density: > 1

(20°C)

Heavier than air.

Partitioning coefficient n-2.7

octanol/water (log Pow): (20°C)

Information based on the main component/s.

Self-ignition Based on its structural properties the temperature:

product is not classified as self-

Thermal decomposition: approx. 280 °C (DSC (DIN 51007))

Viscosity, dynamic: 6.75 - 8.21 mPa.s

(20°C)

Revision date: 2025/08/18 Page: 7/12 Version: 6.0 (30035070/SDS GEN US/EN)

Viscosity, kinematic: No data available. Solubility in water: 100 - 769 mg/l

(20°C)

The statements are based on the properties of the individual

components.

Solubility (qualitative): soluble

solvent(s): organic solvents,

Molecular weight: No data available.

Evaporation rate: Value can be approximated from

Henry's Law Constant or vapor

pressure.

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular

form.

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.

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.

Possibility of hazardous reactions

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

Conditions to avoid

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

Incompatible materials

strong oxidizing agents, acids, bases

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

approx. 280 °C (DSC (DIN 51007))

Revision date: 2025/08/18 Page: 8/12 Version: 6.0 (30035070/SDS GEN US/EN)

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: Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact.

Oral

Type of value: LD50 Species: rat (male/female) Value: 3,600 mg/kg

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

Inhalation

No data available.

Dermal

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

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

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: Skin contact causes irritation. May cause severe damage to the eyes.

Skin

Species: rabbit Result: Irritant.

Method: OECD Guideline 404

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

Eye

Species: rabbit

Result: irreversible damage Method: OECD Guideline 405

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

Sensitization

Revision date: 2025/08/18 Page: 9/12 Version: 6.0 (30035070/SDS_GEN_US/EN)

Assessment of sensitization: Sensitization after skin contact possible.

Species: mouse Result: skin sensitizing

Method: OECD Guideline 429

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

individual components.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No substance-specific organtoxicity was observed after repeated administration to animals. After repeated exposure the prominent effect is local irritation. The product has not been tested. The statement has been derived from the properties of the individual components.

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: In long-term animal studies in which the substance was given by gavage in high doses, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Assessment of reproduction toxicity: Repeated dermal uptake of the substance did not cause damage to the reproductive organs. The results were determined in a Screening test (OECD 421/422).

Teratogenicity

Assessment of teratogenicity: In animal studies the substance did not cause malformations.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible. Acutely harmful for aquatic organisms.

Toxicity to fish

LC50 (96 h) approx. 22 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EWG, C.1, static) The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from the properties of the individual components.

LC50 (96 h) 3.2 mg/l, Pimephales promelas (EPA 72-1, Flow through.) The details of the toxic effect relate to the nominal concentration.

Revision date: 2025/08/18 Page: 10/12 Version: 6.0 (30035070/SDS GEN US/EN)

Aquatic invertebrates

EC50 (48 h) 10.8 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants

EC50 (72 h) 13.1 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static) The details of the toxic effect relate to the nominal concentration.

Chronic toxicity to fish

Study scientifically not justified.

Chronic toxicity to aquatic invertebrates

Study scientifically not justified.

Assessment of terrestrial toxicity

Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 8192-OECD 209-88/302/EEC.P. C aerobic

activated sludge, domestic/EC50 (30 min): 70 mg/l

The details of the toxic effect relate to the nominal concentration. The product has not been tested.

The statement has been derived from the properties of the individual components.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Readily biodegradable (according to OECD criteria).

Elimination information

90 - 100 % DOC reduction (3 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic) The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment of stability in water

According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential

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

Bioaccumulation potential

No data available.

Mobility in soil

Assessment transport between environmental compartments

The substance will slowly evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

Revision date: 2025/08/18 Page: 11/12 Version: 6.0 (30035070/SDS GEN US/EN)

13. Disposal considerations

Waste disposal of substance:

Do not discharge into waterways or sewer systems without proper authorization. Dispose of in accordance with national, state and local regulations.

Container disposal:

Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. 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:

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.

NFPA Hazard codes:

Health: 2 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 2 Flammability: 1 Physical hazard: 0

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

Skin Corr./Irrit. 2 Skin corrosion/irritation

Eye Dam./Irrit. 1 Serious eye damage/eye irritation

Acute Tox. 5 (oral) Acute toxicity

Aquatic Acute 3 Hazardous to the aquatic environment - acute

Revision date: 2025/08/18 Page: 12/12 Version: 6.0 (30035070/SDS GEN US/EN)

Skin Sens. 1 Skin sensitization

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2025/08/18

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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Date / Revised: 2025/08/18 Version: 6.0
Date / Previous version: 2022/10/25 Previous version: 5.0

END OF DATA SHEET