We create chemistry

Safety Data Sheet
Citronellylnitrile

1. Identification

Product identifier used on the label

Citronellylnitrile

Recommended use of the chemical and restriction on use

Recommended use*: Chemical, Chemical for detergents, Chemical for soaps, detergents and cosmetic
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: 3,7-Dimethyloct-6-enenitrile

2. Hazards Identification

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

Classification of the product

Aquatic Acute	3	Hazardous to the aquatic environment - acute

Label elements

Hazard Statement:

H402 Harmful to aquatic life.

Precautionary Statements (Prevention):
P273 Avoid release to the environment.

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

Citronellyl nitrile
CAS Number: 51566-62-2
Content (W/W): 80.0 - 100.0%
Synonym: 3,7-Dimethyl-6-octenenitrile; Citronellylnitrile

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:
carbon dioxide, foam, dry powder, water spray

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:
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.

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.

Environmental precautions

Do not allow to enter soil, waterways or waste water channels. In case of release into waterways, immediately notify the appropriate authorities downstream of the spill so they can determine if further action is needed.

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

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

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

Conditions for safe storage, including any incompatibilities
No applicable information available.

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

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.

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:	liquid	
Form:	liquid	
Odour:	fruity	
Odour threshold:	< 100 ppm	
Colour:	colourless	
pH value:	The substance does not dissociate.	
glass transition temperature:	-120 °C	(OECD Guideline 102)
Melting point:	not applicable	(OECD Guideline 102)
Freezing point:	No data available.	
Boiling point:	231.43 °C (1,013.25 hPa)	(measured)
Sublimation point:	No applicable information available.	

Flash point:	103 °C	(DIN 51758, closed cup)
Flammability:	hardly combustible	(derived from flash point)
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:	307 °C	(Directive 92/69/EEC, A.15)
Vapour pressure:	0.57 mbar (50 °C)	(measured)
	0.05 mbar (20 °C)	(measured)
Density:	0.8453 g/cm3 (20 °C)	(OECD Guideline 109)
Relative density:	0.8453 (20 °C)	(OECD Guideline 109)
Relative vapour density:	> 1 (20 °C) Heavier than air.	(calculated)
Partitioning coefficient n-octanol/water (log Pow):	3.55 The data refers to the undissociated form of the substance.	(calculated)
	3.1 (23 °C)	(OECD Guideline 117)
Self-ignition temperature:	Based on its structural properties the product is not classified as self-igniting.	
Thermal decomposition:	approx. 380 °C (DSC (DIN 51007)) No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	2.5 mPa.s (20 °C) The value was determined by calculation from the detected kinematic viscosity.	(OECD Guideline 114)
	1.64 mPa.s (40 °C) The value was determined by calculation from the detected kinematic viscosity.	(OECD Guideline 114)
Viscosity, kinematic:	2.96 mm2/s (20 °C)	(OECD Guideline 114)
	1.97 mm2/s (40 °C)	(OECD Guideline 114)
Solubility in water:	119 g/l (20 °C)	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	soluble solvent(s): organic solvents,	
Molecular weight:	151.25 g/mol	

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:
No corrosive effect on metal.

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

Formation of flammable gases:	Remarks:	Forms no flammable gases in the 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
acids

Hazardous decomposition products

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

Thermal decomposition:
approx. 380 °C (DSC (DIN 51007))
No decomposition if stored and handled as prescribed/indicated.

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. Virtually nontoxic by inhalation.

Oral
Type of value: LD50
Species: rat
Value: 4,490 mg/kg

Inhalation
Type of value: LC50
Species: rat
Value: > 4.9 mg/l (BASF-Test)
Exposure time: 4 h
An aerosol was tested.

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: Not irritating to the skin. Not irritating to the eyes.

Skin
Species: rabbit
Result: non-irritant
Method: similar to OECD guideline 404

Eye
Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies. A controlled medical study in humans did not reveal a skin sensitizing effect.

Draize test
Species: guinea pig
Result: Non-sensitizing.
Method: other

Human Maximization Test
Species: human
Result: Non-sensitizing.
Method: other

Aspiration Hazard
No data available.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No substance-specific organtoxicity was observed after repeated administration to animals.

Genetic toxicity
Assessment of mutagenicity: In the majority of tests performed (bacteria/microorganisms/cell cultures) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays.

Carcinogenicity
Assessment of carcinogenicity: No data available concerning carcinogenic effects.

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

Teratogenicity
Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

12. Ecological Information

Toxicity

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) 31.58 mg/l, Leuciscus idus (DIN 38412 Part 15, static)
The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates
EC50 (48 h) 11.4 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants
EC50 (72 h) 14.5 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

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.

Soil living organisms

Toxicity to soil dwelling organisms:
Study scientifically not justified.

Toxicity to terrestrial plants

Study scientifically not justified.

Other terrestrial non-mammals
Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
DIN 38412 Part 27 (draft) aquatic
bacterium/EC10 (30 min): > 10,000 mg/l
The details of the toxic effect relate to the nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Readily biodegradable (according to OECD criteria).

Elimination information

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

Assessment of stability in water
Study scientifically not justified.

Bioaccumulative potential

Assessment bioaccumulation potential
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 slowly evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is possible.

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:

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: 0 Fire: 1 Reactivity: 0 Special:

HMIS III rating
Health: 0 Flammability: 1 Physical hazard: 0

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

Aquatic Acute	3	Hazardous to the aquatic environment - acute
Acute Tox.	5 (oral)	Acute toxicity

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2025/08/05

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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Any other intended applications should be discussed with the manufacturer.
Corresponding occupational protection measurements must be followed.

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END OF DATA SHEET