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Safety data sheet

BASF Safety data sheet
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Product: **Nerolidol**

(30034996/SDS_GEN_SG/EN)
Date of print: 21.10.2025

1. Substance/preparation and manufacturer/supplier identification

Product name:
Nerolidol

Use: Chemical, Chemical for detergents, Cosmetic and oral care chemical, flavoring substance

Manufacturer/supplier:
BASF South East Asia Pte Ltd.
128 Beach Road #18-01
Guoco Midtown, 189773, Singapore
Telephone: +65 8322 4420
Telefax number: +65 6 334-0330
E-mail address: benny.zou@basf.com

Emergency information:
Singapore Emergency Toll-Free Number:
Telephone: 1800-723-1361
International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification of the substance and mixture:
Serious eye damage/eye irritation: Cat.2B
Skin sensitization: Cat.1B
Hazardous to the aquatic environment - acute: Cat.1
Hazardous to the aquatic environment - chronic: Cat.1

M-factor acute: 1
M-factor chronic: 1

Label elements and precautionary statement:

Pictogram:

Signal Word:
Warning

Hazard Statement:

H320	Causes eye irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves.
P273	Avoid release to the environment.
P261	Avoid breathing mist or vapour or spray.
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.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P391	Collect spillage.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P337 + P313	If eye irritation persists: Get medical attention.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: Substance

3,7,11-trimethyldodeca-1,6,10-trien-3-ol, mixed isomers
CAS Number: 7212-44-4

Hazardous ingredients

3,7,11-trimethyldodeca-1,6,10-trien-3-ol, mixed isomers

Content (W/W): >= 75 % - <= 100 %	Eye Dam./Irrit.: Cat. 2B
	Skin Sens.: Cat. 1B
CAS Number: 7212-44-4	Aquatic Acute: Cat. 1
	Aquatic Chronic: Cat. 1
	M-factor acute: 1
	M-factor chronic: 1

6,10-dimethylundeca-5,9-dien-2-one

Content (W/W): > 0 % - < 3 %	Skin Corr./Irrit.: Cat. 2
CAS Number: 689-67-8	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 2

4. First-Aid Measures

General advice:
Remove contaminated clothing.

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

On skin contact:
Wash thoroughly with soap and water

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

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

Note to physician:
Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water

Specific hazards:
carbon oxides, harmful vapours
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear a self-contained breathing apparatus.

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.

6. Accidental Release Measures

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

Environmental precautions:
Do not discharge into drains/surface waters/groundwater.Inform authorities in the event of product spillage to water courses or sewage systems.

Methods for cleaning up or taking 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

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.

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

Storage

Further information on storage conditions: Keep at temperature not exceeding 50°C. Keep in a cool, well-ventilated place. Keep container tightly closed and dry.

8. Exposure controls and personal protection

Components with occupational exposure limits

No substance specific occupational exposure limits known.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for higher concentrations or long-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:
Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing. Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

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	
Colour:	colourless to yellow	
Odour:	flowery	
Odour threshold:	< 100 ppm	
pH value:	6.3 (14.1 mg/l, 20 °C)	
glass transition temperature:	-90 °C (1,013 hPa)	(OECD Guideline 102)
Boiling point:	276 °C (1,013.25 hPa) Literature data.	
Flash point:	125 °C	(ISO 2719)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability (solid/gas):	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.	
Ignition temperature:	237 °C	(Directive 84/449/EEC, A.15)
Thermal decomposition:	385 °C	(DSC (OECD 113))
Self ignition:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Self heating ability:	not applicable, the product is a liquid	
SADT:	No data available.	
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	
Vapour pressure:	0.0024 hPa (20 °C)	(OECD Guideline 104)
Density:	0.88 g/cm3 (20 °C) Literature data. 0.85 g/cm3 (50 °C)	
Relative density:	0.88 (20 °C) Literature data.	
Relative vapour density (air):	7.66 (20 °C) Heavier than air.	(calculated)
Solubility in water:		
	14.1 mg/l (20 °C)	
Solubility (qualitative) solvent(s):	organic solvents soluble	
Partitioning coefficient n-octanol/water (log Pow):	4.5 (24 °C; pH value: approx. 7)	(Directive 92/69/EEC, A.8)
Adsorption/water - soil:	KOC: 1332; log KOC: 3.12	(calculated)
Surface tension:		
	Based on chemical structure, surface activity is not to be expected.	
Viscosity, dynamic:	13.8 mPa.s (20 °C)	(OECD Guideline 114)

	5.50 mPa.s (40 °C)	(OECD Guideline 114)
Viscosity, kinematic:	15.8 mm2/s (20 °C)	(OECD Guideline 114)
	6.41 mm2/s (40 °C)	(OECD Guideline 114)

Molar mass: 222.37 g/mol

Particle characteristics

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

Specific Surface Area:
No data available.

Particle Shape:
No data available.

Dustiness:
No data available.

10. Stability and Reactivity

Conditions to avoid:
See SDS section 7 - Handling and storage.

Thermal decomposition: 385 °C (DSC (OECD 113))

Substances to avoid:
acids, bases

Corrosion to metals: Corrosive effects to metal are not anticipated.

Hazardous reactions:
Strong exothermic reaction.

Hazardous decomposition products:
acetylene

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

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

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:

LD50rat (oral): > 2,610 mg/kg (BASF-Test)
No mortality was observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Acute inhalation toxicity

(by inhalation):No data available.

Acute dermal toxicity

LD50 rabbit (dermal): > 5,000 mg/kg
No mortality was observed.

Assessment of acute toxicity

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Symptoms

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
(Further) symptoms and / or effects are not known so far

Irritation

Assessment of irritating effects:
Not irritating to the skin. Eye contact causes irritation.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Respiratory/Skin sensitization

Assessment of sensitization:
Caused skin sensitization in animal studies.

Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: skin sensitizing (OECD Guideline 429)

Germ cell mutagenicity

Assessment of mutagenicity:
The substance was not mutagenic in bacteria. No mutagenic effect was found in various tests with mammalian cell culture and mammals. 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.

Experimental/calculated data:
No data available.

Reproductive toxicity

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

Developmental toxicity

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

Specific target organ toxicity (single exposure)

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

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Very toxic (acute effect) to 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) 1.43 mg/l, Pimephales promelas (Flow through.)
The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:
EC50 (48 h) 0.510 mg/l, Daphnia magna (Directive 79/831/EEC, static)
The details of the toxic effect relate to the nominal concentration.

Aquatic plants:
EC50 (72 h) 2 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge:

EC20 (0.5 h) 180 mg/l, activated sludge (OECD Guideline 209, aerobic)

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.

Mobility

Assessment transport between environmental compartments:
The substance will slowly evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is expected.

Persistence and degradability

Elimination information:
70 - 80 % 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:
According to structural properties, hydrolysis is not expected/probable.

Bioaccumulation potential

Assessment bioaccumulation potential:
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.

13. Disposal Considerations

Observe national and local legal requirements.

14. Transport Information

Domestic transport:

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,7,11-TRIMETHYL-DODECATRIEN-3-OL)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Sea transport

IMDG

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,7,11-TRIMETHYL-DODECATRIEN-3-OL)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes Marine pollutant: YES
Special precautions for user:	EmS: F-A; S-F

Air transport
IATA/ICAO

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,7,11-TRIMETHYL-DODECATRIEN-3-OL)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information
Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

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

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.