

Chemical Safety Data Sheet MSDS / SDS

NONYLPHENOL

Revision Date:2026-05-31 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name : NONYLPHENOL
CBnumber : CB5407257
CAS : 84852-15-3
EINECS Number : 284-325-5
Synonyms : 1-dodecanethio,4-nonylphenol (technical)

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.
Uses advised against : none

Company Identification

Company : Chemicalbook
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone : 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word

Danger

Precautionary statements

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

Hazard statements

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H410 Very toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: NONYLPHENOL
Synonyms	: 1-dodecanethio,4-nonylphenol (technical)
CAS	: 84852-15-3
EC number	: 284-325-5
MF	: C ₁₅ H ₂₄ O
MW	: 220.35

SECTION 4: First aid measures

General advice

First aiders need to protect themselves. Show this safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Protection of first-aiders

For personal protection see section 8.

Notes to physician

No data available

SECTION 5: Firefighting measures

Suitable extinguishing media

Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards during fire fighting

Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

Hazardous combustion products

Carbon oxides

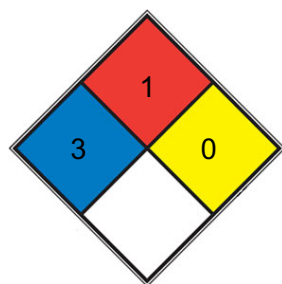
Specific extinguishing methods

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

NFPA 704



HEALTH 3 Short exposure could cause serious temporary or moderate residual injury (e.g. [liquid hydrogen](#), [sulfuric acid](#), [calcium hypochlorite](#), hexafluorosilicic acid)

FIRE 1 Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. [mineral oil](#), ammonia)

REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, [N₂](#))

☐ SPEC.

☐ HAZ.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

SECTION 7: Handling and storage

Handling

Avoidance of contact

Strong oxidizing agents

Storage

Further information on storage conditions

Tightly closed.

Storage class

8A, Combustible, corrosive hazardous materials

Recommended storage temperature

Recommended storage temperature see product label.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

No data available

Personal protective equipment

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type

Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Tightly fitting safety goggles

Skin and body protection

protective clothing

Hand protection

Remarks

required

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

liquid

Color

yellow

Odor

phenol-like

Odor Threshold

No data available

pH

No data available

pH

5.7

Method: OECD Test Guideline 117

Melting point/ range

< -7 °C

Boiling point/boiling range

302 °C (ca. 1,013 hPa)

Flash point

> 113 °C

Method: closed cup

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Flammability (liquids)

No data available

Burning rate

No data available

Self-ignition

372 °C ca. 1,013.25 hPa

Method: ASTM E-659

Upper explosion limit / Upper flammability limit

No data available

Lower explosion limit / Lower flammability limit

No data available

Vapor pressure

0.01 mbar (38 °C)

Method: ASTM D 2879-86

Relative vapor density

No data available

Relative density

0.937 g/mL at 25 °C(lit.)

Density

0.937 g/cm³ (25 °C)

Method: lit.

Water solubility

0.0049 g/l slightly soluble

Partition coefficient: n-octanol/water

log Pow: 5.4 (23 °C)

Autoignition temperature

372 °C (1,013.25 hPa)

Method: ASTM E 659

Decomposition temperature Viscosity: No data available

Viscosity, dynamic

ca. 2,320 mPa.s (20 °C)

Method: OECD Test Guideline 114 ca. 209 mPa.s (40.5 °C)

Method: OECD Test Guideline 114

Viscosity, kinematic

No data available

Flow time

No data available

Explosive properties

Not classified as explosive.

Oxidizing properties

none

Surface tension

38.9 mN/m, 20.1 °C, OECD Test Guideline 115, GLP: yes

Molecular weight

220.35 g/mol

Particle characteristics Particle size

No data available

Solubility

water: slightly soluble 4.9mg/L±0.4mg/L

Physical state

Viscous Liquid

SECTION 10: Stability and reactivity

Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

Strong heating.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 1,412 mg/kg

Remarks: (ECHA)

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns. - 4 h (OECD Test Guideline 404)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Corrosive - 72 h (OECD Test Guideline 405)

Respiratory or skin sensitization

Maximisation Test - Guinea pig

Result: negative (OECD Test Guideline 406)

Germ cell mutagenicity

Classified based on available data. For more details, see section 2

Carcinogenicity

Classified based on available data. For more details, see section 2

Reproductive toxicity

Suspected of damaging the unborn child.

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

Classified based on available data. For more details, see section 2

Specific target organ toxicity - repeated exposure

Classified based on available data. For more details, see section 2

Aspiration hazard

Classified based on available data. For more details, see section 2

11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 28 Days - No observed adverse effect level - 100 mg/kg - Lowest observed adverse effect level - 400 mg/kg

Cough, Shortness of breath, Headache, Nausea, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

Ecotoxicity

Components:

4-Nonylphenol, branched:

Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): 0.083 mg/l Exposure time: 96.0 h Test Type: mortality Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.0844 mg/l End point: mortality Exposure time: 48 h Test Type: semi-static test Analytical monitoring: yes Remarks: (ECHA)

Toxicity to algae/aquatic plants

EC50 (Desmodesmus subspicatus (green algae)): 1.3 mg/l Exposure time: 72 h Test Type: static test Remarks: (ECHA)

M-Factor (Acute aquatic toxicity)

10

Toxicity to fish (Chronic toxicity)

NOEC (Oryzias latipes): ≥ 0.0029 mg/l End point: mortality Exposure time: 16 Weeks Test Type: flow-through test Analytical monitoring: yes Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

NOEC (Daphnia magna (Water flea)): 0.13 mg/l End point: mortality Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 202

M-Factor (Chronic aquatic toxicity)

10

Toxicity to microorganisms

EC50 (activated sludge): 950 mg/l Exposure time: 3 h Test Type: static test Method: OECD Test Guideline 209 GLP: yes

Persistence and degradability

Components:

4-Nonylphenol, branched:

Biodegradability

aerobic Inoculum: activated sludge Concentration: 13 mg/l Result: Inherently biodegradable. Biodegradation: 48.2 % Exposure time: 35 d Method: OECD Test Guideline 301B GLP: yes

Bioaccumulative potential

Components:

4-Nonylphenol, branched:

Bioaccumulation

Species: Pimephales promelas (fathead minnow) Bioconcentration factor (BCF): 740 Exposure time: 28 d

Partition coefficient: noctanol/water

log Pow: 5.4 (23 °C) pH: 5.7 Method: OECD Test Guideline 117 Remarks: Potential bioaccumulation

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13: Disposal considerations

Disposal methods

Waste from residues

Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 14: Transport information

International Regulations

IATA-DGR

UN/ID No. : UN 3145

Proper shipping name : Alkylphenols, liquid, n.o.s.

Class : 8

Packing group : II

Labels : Class 8 - Corrosive substances

Packing instruction (cargo aircraft) : 855

Packing instruction (passenger aircraft) : 851

IMDG-Code

UN number : UN 3145

Proper shipping name : ALKYLPHENOLS, LIQUID, N.O.S.

(4-Nonylphenol, branched)

Class : 8

Packing group : II

Labels : 8

EmS Code : F-A, S-B

Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

JT/T 617

UN number : UN 3145

Proper shipping name : ALKYLPHENOLS, LIQUID, N.O.S.

(4-Nonylphenol, branched)

Class : 8

Packing group : II

Labels : 8

Environmentally hazardous : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15: Regulatory information

National regulatory information

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

Not listed

Hazardous Chemicals for Priority Management

Not listed under SAWS

Catalogue of Specially Controlled Hazardous

Not listed Chemicals

List of Explosive Precursors

Not listed

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals

Not listed

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export

Not listed

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals

Not listed

Regulations on the Administration of Controlled Chemicals

List of Controlled Chemicals

Not listed

Regulations of Ozone Depleting Substances Management

List of Controlled Ozone Depleting Substances

Not listed

List of Controlled Ozone Depleting Substances Import and Export

Not listed

Environmental Protection Law

List of Priority Controlled Chemicals

Listed

List of Key Controlled New Pollutants

Listed

SECTION 16: Other information

Full text of other abbreviations

AIIIC - Australian Inventory of Industrial Chemicals

ANTT - National Agency for Transport by Land of Brazil

ASTM - American Society for the Testing of Materials

bw - Body weight

CMR - Carcinogen, Mutagen or Reproductive Toxicant

DIN - Standard of the German Institute for Standardisation

DSL - Domestic Substances List (Canada)

EC_x - Concentration associated with x% response

EL_x - Loading rate associated with x% response

EmS - Emergency Schedule

ENCS - Existing and New Chemical Substances (Japan)

ErC_x - Concentration associated with x% growth rate response

ERG - Emergency Response Guide

GHS - Globally Harmonised System

GLP - Good Laboratory Practice

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IC₅₀ - Half maximal inhibitory concentration

ICAO - International Civil Aviation Organization

IECSC - Inventory of Existing Chemical Substances in China

IMDG - International Maritime Dangerous Goods

IMO - International Maritime Organisation

ISHL - Industrial Safety and Health Law (Japan)
 ISO - International Organisation for Standardisation
 KECI - Korea Existing Chemicals Inventory
 LC50 - Lethal Concentration to 50 % of a test population
 LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
 MARPOL - International Convention for the Prevention of Pollution from Ships
 MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods
 n.o.s. - Not Otherwise Specified
 Nch - Chilean Norm
 NO(A)EC - No Observed (Adverse) Effect Concentration
 NO(A)EL - No Observed (Adverse) Effect Level
 NOELR - No Observable Effect Loading Rate
 NOM - Official Mexican Norm
 NTP - National Toxicology Program
 NZIoC - New Zealand Inventory of Chemicals
 OECD - Organisation for Economic Co-operation and Development
 OPPTS - Office of Chemical Safety and Pollution Prevention
 PBT - Persistent, Bioaccumulative and Toxic substance
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 (Q)SAR - (Quantitative) Structure Activity Relationship
 REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
 SADT - Self-Accelerating Decomposition Temperature
 SDS - Safety Data Sheet
 TCSI - Taiwan Chemical Substance Inventory
 TDG - Transportation of Dangerous Goods
 TECI - Thailand Existing Chemicals Inventory
 TSCA - Toxic Substances Control Act (United States)
 UN - United Nations
 UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods
 vPvB - Very Persistent and Very Bioaccumulative
 WHMIS - Workplace Hazardous Materials Information System

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.