

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

Version 8.4
Revision Date 2026/04/24
Print Date 2026/05/11
Date of first issue 2026/04/24

Terpineol

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Terpineol

Product Number : W304506

Brand : Aldrich

CAS-No. : 8000-41-7

1.2 Details of the supplier of the safety data sheet

Company : Gree Industry Co.,Ltd

Address : Building A2, Sanqing Century Fortune
Center, Shunhua Road, High-tech Zone,
Jinan City, Shandong Province, China. Zip
code: 250101

Telephone : +86-531-88755607

Fax : +86-531-88755607

1.3 Emergency telephone number

Emergency Phone # : +86-531-88755607

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

Identified uses : For R&D use only. Not for pharmaceutical, household or other uses.

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	: liquid
Color	: colourless

Combustible liquid. May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life.

GHS Classification

Flammable liquids	: Category 4
Acute toxicity (Oral)	: Category 5
Skin corrosion/irritation	: Category 2
Serious eye damage/eye irritation	: Category 2A
Short-term (acute) aquatic hazard	: Category 3

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H227 Combustible liquid.
H303 May be harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H402 Harmful to aquatic life.

Precautionary statements : **Prevention:**
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/ doctor if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Reduced Labelling (<= 125 ml)

Pictogram



Signal word

Warning

Hazard Statements

H227

Combustible liquid.

H303

May be harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H402

Harmful to aquatic life.

Precautionary Statements none

Physical and chemical hazards

Combustible liquid.

Health hazards

May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation.

Environmental hazards

Harmful to aquatic life.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

CAS-No. : 8000-41-7

Components

Chemical name	CAS-No.	Concentration (% w/w)
terpineol	8000-41-7	<= 100

4. FIRST AID MEASURES

General advice	: Show this safety data sheet to the doctor in attendance.
If inhaled	: After inhalation: fresh air.
In case of skin contact	: In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact	: After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
If swallowed	: After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Most important symptoms and effects, both acute and delayed	: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Protection of first-aiders	: For personal protection see section 8.
Notes to physician	: No data available

5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Carbon dioxide (CO ₂) Foam Dry powder
Unsuitable extinguishing media	: For this substance/mixture no limitations of extinguishing agents are given. 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	: Remove container from danger zone and cool with water. 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.

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. Keep away from heat and sources of ignition. 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 with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

7. HANDLING AND STORAGE

Handling

For precautions see section 2.2.

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition.
Take precautionary measures against static discharge.

Storage

Further information on storage conditions : Tightly closed.

Storage class : 10, Combustible liquids

Recommended storage temperature : Recommended storage temperature see product label.

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).
Safety glasses

Skin and body protection : protective clothing

Hand protection

Material : Nitrile rubber
Break through time : 480 min

Glove thickness	: 0.4 mm
Protective index	: Full contact
Manufacturer	: Camatril® (KCL 730 / Aldrich Z677442, Size M)
Material	: Nitrile rubber
Break through time	: 30 min
Glove thickness	: 0.11 mm
Protective index	: Splash contact
Manufacturer	: KCL 741 Dermatril® L
Remarks	: This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
Hygiene measures	: Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Color	: colourless
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Melting point/ range	: 15 °C
Boiling point/boiling range	: 217 - 218 °C (1,013 hPa)
Flash point	: ca. 88 °C (1,023 hPa) Information taken from reference works and the literature.
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Flammability (liquids)	: No data available

Burning rate	: No data available
Self-ignition	: ca. 264 °C 980 - 981 hPa Method: Tested according to Annex V of Directive 67/548/EEC. GLP: yes
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.93 g/cm ³ (25 °C) Method: lit.
Solubility(ies) Water solubility	: 2.54 g/l soluble (20 °C) pH: 4.7 - 5 Method: OECD Test Guideline 105
Partition coefficient: n- octanol/water	: No data available
Autoignition temperature	: No data available
Decomposition tempera- ture	: No data available
Viscosity Viscosity, dynamic	: ca. 60.9 mPa.s (20 °C) Method: OECD Test Guideline 114
Viscosity, kinematic	: No data available
Flow time	: No data available
Explosive properties	: Not applicable
Oxidizing properties	: none
Molecular weight	: 154.25 g/mol
Particle characteristics	

Particle size : No data available

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) . The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	: Violent reactions possible with: Bases acids Strong oxidizing agents
Conditions to avoid	: Strong heating.
Incompatible materials	: No data available
Hazardous decomposition products	: In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 4,300 mg/kg
(OECD Test Guideline 401)

The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)The value is given in analogy to the following substances: terpineol

Inhalation: No data available

LD50 Dermal - Rat - male and female - > 2,000 mg/kg
(OECD Test Guideline 402)

The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)The value is given in analogy to the following substances: terpineol

Skin corrosion/irritation

Skin - Rabbit

Result: irritating - 4 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation - 24 h

(OECD Test Guideline 405)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)The value is given in analogy to the following substances: terpineol

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Guinea pig

Result: negative

(Regulation (EC) No. 440/2008, Annex, B.42 (LLNA))

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)

Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

RTECS: WZ6600000

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

terpineol:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 70 mg/l
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 203
GLP: yes
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)The value is given in analogy to the following substances: terpineol

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 73 mg/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 202
GLP: yes
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)The value is given in analogy to the following substances: terpineol

Toxicity to algae/aquatic plants : LC50 (Pseudokirchneriella subcapitata (green algae)): ca. 68 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)The value is given in analogy to the following substances: terpineol

Persistence and degradability

Components:

terpineol:

Biodegradability : aerobic
Inoculum: activated sludge
Result: Readily biodegradable.

Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 310
The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)The value is given in analogy to the following substances: terpineol

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Components:

terpineol:

Additional ecological information : When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected.

Discharge into the environment must be avoided.

Endocrine disrupting properties

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Offer surplus and non-recyclable solutions to a licensed disposal company.

14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

UN/ID No. : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

Packing instruction (cargo aircraft) : Not applicable

Packing instruction (passenger aircraft) : Not applicable

IMDG-Code

Not regulated as a dangerous good

UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
EmS Code : Not applicable
Marine pollutant : no

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 : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
Environmentally hazardous : no

Special precautions for user

Not applicable

15. REGULATORY INFORMATION**National regulatory information****Regulations on Safety Management of Hazardous Chemicals**

Catalogue of Hazardous Chemicals : This product is not listed in the catalogue of hazardous chemicals, but it meets the definition of hazardous chemicals and its principles of determination.

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218) : Not listed

Hazardous Chemicals for Priority Management under SAWS : Listed

Catalogue of Specially Controlled Hazardous Chemicals : Not listed

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 : 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 : Not listed

List of Key Controlled New Pollutants : Not listed

Measures for the Administration of Non-Medical Use of Narcotic Drugs and Psychotropic Substances

Catalogue of Controlled Narcotic Drugs and Psychotropic Substances with Non-Medical Use : Not listed

Measures for the Administration on Import and Export Licenses for Dual-Use Items and Technologies

Catalogue for Dual-Use Items and Technologies : Not listed

16. OTHER INFORMATION

Revision Date : 2026/04/24

Further information

Other information : The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not

be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Copyright 2025 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

Date format : yyyy/mm/dd

Full text of other abbreviations

AIIC - 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); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - 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

