

## Chemical Safety Data Sheet MSDS / SDS

## 1-Naphthol

Revision Date:2026-04-18 Revision Number:1

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

**Product identifier**

Product name : 1-Naphthol  
CBnumber : CB0279325  
CAS : 90-15-3  
EINECS Number : 201-969-4  
Synonyms : 1-NAPHTHOL,naphthalen-1-ol

**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**

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

Continuerinsing.

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

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

P273 Avoid release to the environment.

**Hazard statements**

H410 Very toxic to aquatic life with long lasting effects

H371 May cause damage to organs

H335 May cause respiratory irritation

H318 Causes serious eye damage

H317 May cause an allergic skin reaction

H315 Causes skin irritation

H311 Toxic in contact with skin

H302 Harmful if swallowed

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## SECTION 3: Composition/information on ingredients

### Substance

Product name	: 1-Naphthol
Synonyms	: 1-NAPHTHOL,naphthalen-1-ol
CAS	: 90-15-3
EC number	: 201-969-4
MF	: C10H8O
MW	: 144.17

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## SECTION 4: First aid measures

### General advice

First aiders need to protect themselves. Show this material 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: 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) and/or in section 11

### Protection of first-aiders

For personal protection see section 8.

### Notes to physician

No data available

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## SECTION 5: Firefighting measures

## Suitable extinguishing media

Water 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. Vapors 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

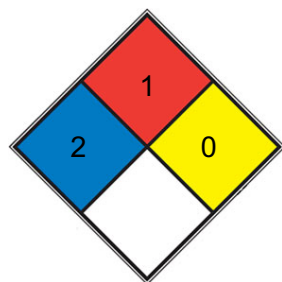
## Specific extinguishing methods

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 2** Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. [diethyl ether](#), ammonium phosphate, iodine)

**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: Avoid generation and inhalation of dusts in all circumstances. 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. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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# SECTION 7: Handling and storage

## **Handling**

### **Advice on safe handling**

Work under hood. Do not inhale substance/mixture.

## **Storage**

### **Further information on storage conditions**

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

### **Storage class**

6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

### **Further information on storage stability**

Store under inert gas. Air and light sensitive.

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# SECTION 8: Exposure controls/personal protection

## **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

## **Personal protective equipment**

### **Respiratory protection**

required when dusts 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 P3

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**

**Material**

Nitrile rubber

**Break through time**

480 min

**Glove thickness**

0.11 mm

**Protective index**

Full contact

**Manufacturer**

KCL 741 L

**Material**

Nitrile rubber

**Break through time**

480 min

**Glove thickness**

0.11 mm

**Protective index**

Splash contact

**Manufacturer**

KCL 741 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](http://www.kcl.de)).

**Hygiene measures**

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

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## SECTION 9: Physical and chemical properties

**Information on basic physicochemical properties**

solid

Bioaccumulation is not expected.

**Color**

white to off-white

**Odor**

Slight phenolic odor

**pH**

No data available

**Melting point/ range**

94 - 97 °C

**Boiling point/boiling range**

278 - 280 °C

Method: lit.

**Flash point**

125 °C

Method: closed cup

**Evaporation rate**

No data available

**Burning rate**

No data available

**Upper explosion limit / Upper flammability limit**

5 %(V)

**Lower explosion limit / Lower flammability limit**

0.8 %(V)

**Vapor pressure**

2.3 hPa (100 °C)

**Relative vapor density**

4.5 (120 °C, vs air)

**Relative density**

1.27 (20 °C)

Method: OECD Test Guideline 109

**Density**

1.28 g/cm<sup>3</sup> (20 °C)

**Water solubility**

436.7mg/L(25 °C)

**Partition coefficient: n-octanol/water**

log Pow: 2.85

**Autoignition temperature**

542 °C

**Decomposition temperature**

No data available

### **Viscosity, dynamic**

No data available

### **Viscosity, kinematic**

No data available

### **Flow time**

No data available

Explosive properties : Method: Explosive properties

GLP: yes Not classified as explosive.

Oxidizing properties : Method: Regulation (EC) No. 440/2008, Annex, A.17

GLP: yes none

### **Surface tension**

ca. 0.06 N/m, 1 g/l, 20.3 °C, OECD Test Guideline

### **Molecular weight**

115, GLP: yes

### **Molecular weight**

144.17 g/mol

### **Solubility**

Soluble in benzene, chloroform, ether and ethanol.

### **Physical state**

Crystalline Flakes

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## **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. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### **Chemical stability**

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

### **Possibility of hazardous reactions**

Exothermic reaction with: Strong oxidizing agents Violent reactions possible with: strong alkalis Acid chlorides Acid anhydrides

### **Conditions to avoid**

Strong heating.

### **Incompatible materials**

No data available

## Hazardous decomposition products

In the event of fire: see section 5

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# SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

### Acute toxicity

LD50 Oral - Mouse - male and female - 1,000 - 2,000 mg/kg

Remarks: (ECHA)

Inhalation: No data available

LD50 Dermal - Rabbit - male -  $\geq$  880 mg/kg

Remarks: (ECHA)

### Skin corrosion/irritation

Remarks: Causes skin irritation.

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

### Serious eye damage/eye irritation

Eyes - Chicken eye

Result: Causes serious eye damage. - 10 s (OECD Test Guideline 438)

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

### Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: positive (OECD Test Guideline 429)

### Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 476

Result: positive

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: positive

Test Type: unscheduled DNA synthesis assay

Species: Rat

Cell type: Liver cells

Application Route: Oral

Method: OECD Test Guideline 486

Result: negative

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

#### **Carcinogenicity**

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

#### **Reproductive toxicity**

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

#### **Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation.

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

Oral - May cause damage to organs. - Kidney

#### **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 - 90 Days - NOAEL (No observed adverse effect level) - 130 mg/kg - LOAEL (Lowest observed adverse effect level) - 400 mg/kg

RTECS: QL2800000

Cough, Shortness of breath, Headache, Nausea, Vomiting

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

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## **SECTION 12: Ecological information**

### **Ecotoxicity**

#### **Components:**

##### **1-Naphthyl alcohol:**

#### **Toxicity to fish**

LC50 (Lepomis macrochirus (Bluegill)): 0.76 mg/l End point: mortality Exposure time: 96 h Remarks: (ECOTOX Database)

#### **Toxicity to daphnia and other aquatic invertebrates**

EC50 (Daphnia magna (Water flea)): 2.51 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 202 GLP: yes

#### **Toxicity to algae/aquatic plants**

ErC50 (Pseudokirchneriella subcapitata): > 2.18 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes

#### **M-Factor (Acute aquatic toxicity)**

1

#### **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**

NOEC (Daphnia magna (Water flea)): 0.25 mg/l End point: reproduction rate Method: OECD Test Guideline 211 GLP: yes Remarks: (ECHA)

#### **Persistence and degradability**

##### **Components:**

##### **1-Naphthyl alcohol:**

##### **Biodegradability**

aerobic Inoculum: activated sludge, non-adapted Result: Readily biodegradable. Biodegradation: 77.8 % Exposure time: 29 d Method: OECD Test Guideline 301B GLP: yes

##### **ThOD**

2.55 mg/l Remarks: (Lit.)

##### **BOD/ThOD**

60 % Remarks: (Lit.)

##### **Bioaccumulative potential**

##### **Components:**

##### **1-Naphthyl alcohol:**

##### **Partition coefficient: noctanol/water**

log Pow: 2.85 Remarks: Bioaccumulation is not expected.

##### **Mobility in soil**

No data available

##### **Other adverse effects**

No data available

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## SECTION 13: Disposal considerations

### **Disposal methods**

#### **Waste from residues**

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

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## SECTION 14: Transport information

### **International Regulations**

## **IATA-DGR**

UN/ID No. : UN 2811

Proper shipping name : Toxic solid, organic, n.o.s.

(1-Naphthyl alcohol)

Class : 6.1

Packing group : III

Labels : Division 6.1 - Toxic substances

Packing instruction (cargo aircraft) : 677

Packing instruction (passenger aircraft) : 670

## **IMDG-Code**

UN number : UN 2811

Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.

(1-Naphthyl alcohol)

Class : 6.1

Packing group : III

Labels : 6.1

EmS Code : F-A, S-A

Marine pollutant : yes

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

Not applicable for product as supplied.

Domestic regulation GB 6944/12268

UN number : UN 2811

Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.

(1-Naphthyl alcohol)

Class : 6.1

Packing group : III

Labels : 6.1

## **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.

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## **SECTION 15: Regulatory information**

### **National regulatory information**

#### **Regulations on Safety Management of Hazardous Chemicals**

#### **Catalogue of Hazardous Chemicals**

applicable

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

Not listed

## **Hazardous Chemicals for Priority Management**

Not listed under SAWS

## **Regulations on Occupational Labor Protection in the at 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

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## 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<sub>x</sub> - Concentration associated with x% response

EL<sub>x</sub> - Loading rate associated with x% response

EmS - Emergency Schedule

ENCS - Existing and New Chemical Substances (Japan)

ErC<sub>x</sub> - Concentration associated with x% growth rate response

ERG - Emergency Response Guide

GHS - Globally Harmonized 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 Organization

ISHL - Industrial Safety and Health Law (Japan)

ISO - International Organisation for Standardization

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

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 - Organization 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.