



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

NAPHTHALENE 99.7% AR

PRODUCT CODE : O-5124

CAS No : 91-20-3

FORMULA : $C_{10}H_8$

UN No : 1334

**MATERIAL SAFETY DATA SHEET (SDS/MSDS)
NAPHTHALENE 99.7% AR**

MSDS Number : 0236

Date : March 4th, 2025

Version : 1.0

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

- 1.1 Product Name** : NAPHTHALENE 99.7% AR
Synonyms : white tar, Napthalin, Comphor tar
CAS No. : 91-20-3
HS Code : 2902 9040
Chemical Formula : C₁₀H₈
Molecular Weight : 128,17 g/mol
Product Code : O-5124
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Flammable solids, (Category 2)	H228: Flammable solid.
Acute toxicity, (Category 4)	H302: Harmful if swallowed.
Carcinogenicity, (Category 2)	H351: Suspected of causing cancer.
Short-term (acute) aquatic hazard, (Category 1)	H400: Very toxic to aquatic life. Long-term
(chronic) aquatic hazard, (Category 1)	H410: Very toxic to aquatic life with long lasting effects.

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

H228

Flammable solid.

H302

Harmful if swallowed.

H351

Suspected of causing cancer.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P202

Do not handle until all safety precautions have been read and understood.

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240

Ground and bond container and receiving equipment.

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P273 Avoid release to the environment.
 P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard Statements none

Reduced Labeling (<= 125 ml)
Pictogram

Signal Word Warning

Hazard Statements
H351

Suspected of causing cancer.

Precautionary Statements
P202

Do not handle until all safety precautions have been read and understood.

P308 + P313

IF exposed or concerned: Get medical advice/ attention. Supplemental Hazard Statements none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Synonyms : white tar, Naphtalin, Comphor tar
 Formula : C₁₀H₈
 Molecular weight : 128,17 g/mol
 CAS-No. : 91-20-3
 EC-No. : 202-049-5
 Index-No. : 601-052-00-2

3.2 Mixture**Hazardous ingredients according to Regulation (EC) No 1272/2008**

Component	Classification	Concentration
Naphtalene	Flam. Sol. 2; Acute Tox. 4; Carc. 2;	<=100 %

CAS-No. 91-20-3 EC-No. 202-049-5 Index-No. 601-052-00-2	Aquatic Acute 1; Aquatic Chronic 1; H228, H302, H351, H400, H410	
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For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

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. Consult a physician.

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.

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Carbon oxides 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.

5.3 Advice for firefighters

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

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

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6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep away from heat and sources of ignition.

Storage class

Storage class (TRGS 510): 4.1B: Flammable solid hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

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

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Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740, Size M)

Splash contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740, Size M)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A-(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.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	Form: flakes, granules
	Colour: white
Odour	aromatic
Odour Threshold	Not applicable
pH	No data available
Melting point/freezingpoint	Melting point/ range: 79,5 - 81,0 °C
Initial boiling point and boiling range	218 °C - lit.
Flash point	78,5 °C - closed cup - ISO 2719
Evaporation rate	No data available
Flammability (solid, gas)	The substance or mixture is a flammable solid with the category 2. - Flammability (solids)
Upper/lower flammability or explosive limits	Upper explosion limit: 5,9 %(V) Lower explosion limit: 0,9 %(V)
Vapour pressure	0,072 hPa at 20 °C - OECD Test Guideline 104
Vapour density	No data available
Density	1,08 g/cm ³ at 24,7 °C - OECD Test Guideline 109
Relative density	No data available
Water solubility	0,0308 g/l at 25 °C - OECD Test Guideline 105- slightly soluble

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Partition coefficient: noctanol/water	log Pow: 3,4 at 25 °C - OECD Test Guideline 107 - Bioaccumulation is not expected.
Auto-ignition temperature	526 - 587 °C at 1.013 hPa - DIN 51794
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	Not classified as explosive.
Oxidizing properties	none

9.2 Other safety information

Surface tension 31,8 mN/m at 100,0 °C

SECTION 10: Stability and reactivity**10.1 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.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Violent reactions possible with:

Oxidizing agents, chromium(VI) oxide, benzoyl chloride, aluminium chloride

Risk of explosion with: nitrogen oxides

10.4 Conditions to avoid

Heat, flames and sparks. Strong heating.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Acute toxicity estimate Oral - 533 mg/kg (ATE value derived from LD50/LC50 value)

LC50 Inhalation - Rat - male and female - 4 h - > 0,4 mg/l - vapor

(OECD Test Guideline 403) LD50 Dermal - Rabbit - 20.000 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h

Remarks: (ECHA)

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Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 24 h

Remarks: (ECHA)

Respiratory or skin sensitisation

Maximization Test - Guinea pig

Result: negative (OECD Test Guideline 406)

Germ cell mutagenicity

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

Test system: Chinese hamster ovary cells

Metabolic activation: Metabolic activation

Method: OECD Test Guideline 473

Result: positive

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

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: Intraperitoneal

Method: US-EPA

Result: negative

Remarks: (ECHA)

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

Additional Information

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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Repeated dose toxicity - Rat - male and female - Oral - 91 Days - NOAEL (No observed adverse effect level) - 200 mg/kg - LOAEL (Lowest observed adverse effect level) - 400 mg/kg

Repeated dose toxicity - Mouse - male and female - Oral - 90 Days - NOAEL (No observed adverse effect level) - 100 mg/kg Repeated dose toxicity - Rat - male and female - Dermal - 90 Days - NOAEL (No observed adverse effect level) - 1.000 mg/kg

Repeated dose toxicity - Rat - male and female - inhalation (vapor) - 90 Days - NOAEL (No observed adverse effect level) - 300 mg/kg

RTECS: QJ0525000

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., Naphthalene is retinotoxic and systemic absorption of its vapors above 15ppm, may result in:, cataracts, optic neuritis, corneal injury, Eye irritation, Ingestion may provoke the following symptoms:, hemolytic anemia, hemoglobinuria, Nausea, Headache, Vomiting, Gastrointestinal disturbance, Convulsions, anemia, Kidney injury may occur., Seizures., Coma.

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

After absorption:

Headache Stomach/intestinal disorders

Tremors

Convulsions

Changes in the blood count

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

Heart -

SECTION 12: Ecological information**12.1 Toxicity***Toxicity to fish*

flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,6 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 2,16 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test EC50 - Pseudokirchneriella subcapitata (green algae) - 2,96 mg/l - 4 h (US-EPA)

Remarks: (ECHA)

Toxicity to fish(Chronic toxicity)

flow-through test LC50 - Oncorhynchus kisutch (coho salmon) - 2,1 mg/l - 96 h Remarks: (ECHA)

flow-through test NOEC - Oncorhynchus kisutch (coho salmon) - 0,37 mg/l - 40 Days

Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)

static test NOEC - Daphnia pulex (Water flea) - 0,59 mg/l - 125 d

Remarks: (ECHA)

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12.2 Persistence and degradability

Biodegradability

aerobic - Exposure time 28 d

Result: 2 % - Not readily biodegradable. (OECD Test Guideline 302C)

12.3 Bioaccumulative potential

Bioaccumulation

Cyprinus carpio (Carp) - 56 d at 25 °C(Naphthalene)

Bioconcentration factor (BCF): 36,5 - 168 (OECD Test Guideline 305)

Remarks: Bioaccumulation is unlikely.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

Endocrine disrupting properties**Product:**

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

No data available.

SECTION 14: Transport information**14.1 UN number**

ADR/RID: 1334

IMDG: 1334

IATA: 1334

14.2 UN proper shipping name

ADR/RID: NAPHTHALENE, REFINED

IMDG: NAPHTHALENE, REFINED

IATA: Naphthalene, refined

14.3 Transport hazard class(es)

ADR/RID: 4.1

IMDG: 4.1

IATA: 4.1

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

14.6 Special precautions for user**Further information**

No data available

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1

ENVIRONMENTAL HAZARDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

- H228 Flammable solid.
- H302 Harmful if swallowed.
- H351 Suspected of causing cancer.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 2

Reactivity: 1

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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