

MATERIAL SAFETY DATA SHEET NAPHTHALENE

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifierNaphthaleneSubstance / mixtureSubstanceChemical nameNaphthaleneCAS number91-20-3Index number601-052-00-2

Registration number 01-2119561346-37-0007 Other substance name Naphthalene, Naftalin

1.2 Relevant identified uses of the substance or mixture and uses advised against Substance's intended use

202-049-5

Chemical production, analytical chemistry, laboratory synthesis, industrial applications.

Substance uses advised against

EC (EINECS) number

The product should not be used in ways other then those referred in Section 1

1.4 Emergency telephone number

European emergency number: 112

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification of the substance in accordance with Regulation (EC) No 1272/2008

The substance is classified as dangerous.

Flam. Sol. 2, H228 Acute Tox. 4, H302 Carc. 2, H351 Aquatic Chronic 1, H410 (multiplying factor = 1)

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Flammable solid.



Most serious adverse effects on human health and the environment

Harmful if swallowed. Suspected of causing cancer. Very toxic to aquatic life with long lasting effects.

2.2 Label elements Hazard pictogram









Signal word

Warning

Dangerous substance

naphthalene

(Index: 601-052-00-2; CAS: 91-20-3)

Hazard statements

H228 Flammable solid.

H302 Harmful if swallowed.

H351 Suspected of causing cancer.

H410 Very toxic to aquatic life with long lasting

effects.

Precautionary statements

P273 Avoid release to the environment.

P280 Wear protective gloves.

Supplemental information

Restricted to professional users.

2.3 Other hazards

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.



Identification numbers	Substance name		Classification according to Regulation (EC) No 1272/ 2008	Note
CAS: 91-20-3	Substance main component naphthalene	>99	Flam. Sol. 2, H228 Acute Tox. 4, H302 Carc. 2, H351 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	1

Notes

1 Substance with a Union workplace exposure limit.

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes.



If swallowed

Provide medical treatment. For persons with no symptoms, call the Toxicological Information Centre to decide about the need of medical treatment; provide information about the substances or composition of the product from the original packaging or the Safety Data Sheet of the product.

4.2 Most important symptoms and effects, both acute and delayed If inhaled

Not expected.

If on skin

Not expected.

If in eyes

Not expected.

If swallowed

Irritation, nausea.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2 Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3 Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus



and full-body protective clothing. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. The substance is flammable. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes.

6.2 Environmental precautions

Do not allow to enter drains. Prevent contamination of the soil and entering surface or ground water.

6.3 Methods and material for containment and cleaning up

Place the product mechanically in an appropriate manner. Dispose of the collected material according to theinstructions in the section 13.

6.4 Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Prevent formation of gases and vapours in flammable or explosive concentrations and concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use non-sparking tools. Use of antistatic clothes and footwear is recommended. Prevent contact with skin and eyes. No smoking. Obtain special instructions before use. Do not eat, drink or smoke when using this product. Wash hands and exposed parts of the body thoroughly after handling. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight. Store locked up. Storage temperature max.25 $^{\circ}$ C



7.3 Specific end use(s)

Not available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters European Union

Commission Directive 91/322/EEC

Substance name (component)	Туре	Value	
naphthalene (CAS: 91-20-3)	OEL 8 hours	50 mg/m ³	
Hapitulalene (CA3. 91-20-3)	OEL 8 hours	10 ppm	

DNEL

naphthalene

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	25 mg/m³	Systemic chronic effects		
Workers	Inhalation	25 mg/m ³	Local chronic effects		
Workers	Dermal	3.57 mg/kg	Systemic chronic effects		

PNEC

naphthalene

Route of exposure	Value	Value determination	Source
Drinking water	2.4 µg/l		
Freshwater sediment	67.2 µg/kg		
Soil (agricultural)	53.3 µg/kg		

8.2 Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

It is not needed.



Skin protection

Hand protection: Protective gloves resistant to the product. Contaminated skin should be washed thoroughly.

Respiratory protection

It is not needed.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2. Collect spillage.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state solid Colour white

Odour characteristic Melting point/freezing point 80-82°C

Boiling point or initial boiling point and 218 °C boiling range

Flammability Lower and upper explosion limit

bottom 0,9 % upper 5.9 %

79°C Flash point

data not available Auto-ignition temperature Decomposition temperature data not available data not available рН

Kinematic viscosity data not available Solubility in water 31,7 mg/l

Partition coefficient n-octanol/water data not available

(log value)

Vapour pressure 0,004 hPa at 20 °C

Density and/or relative density

1,15 g/cm³ at 20 °C Density

9.2 Other information not available

data not available



SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The substance is flammable.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. No toxicological data is available for the substance.

Acute toxicity

Harmful if swallowed. naphthalene

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD50	533 mg/kg			,

Skin corrosion/irritation

Based on available data the classification criteria are not met.



Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2. Information on other hazards

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity Acute toxicity

Very toxic to aquatic life with long lasting effects. naphthalene

Parameter	Value	Exposure time	Species	Environment
LC50	0.9 mg/l		Fishes	



12.2. Persistence and degradability

not available

12.3. Bioaccumulative potential

naphthalene

Parameter	Value	Exposure time	Species	Environment	Temperature [°C]
	<2000				,

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100. The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.



Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended.

Decision 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number or ID number

UN 1334

14.2. UN proper shipping name

NAPHTHALENE, CRUDE

14.3. Transport hazard class(es)

4.1 Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives

14.4. Packing group

III - substances presenting low danger

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not available

14.7. Maritime transport in bulk according to IMO instruments

not relevant

Additional information

Hazard identification No. 40
UN number 1334
Classification code F1

Safety signs 4.1+hazardous for the environment





Air transport - ICAO/IATA

Packaging instructions passenger 446 Cargo packaging instructions 449



Marine transport - IMDG

EmS (emergency plan)

F-A, S-G

SECTION 15: REGULATORY INFORMATION

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: OTHER INFORMATION

A list of standard risk phrases used in the safety data sheet

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.

Guidelines for safe handling used in the safety data sheet

P280 Wear protective gloves.

P273 Avoid release to the environment.



Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international

carriage of dangerous goods by road

BCF Bioconcentration Factor
CAS Chemical Abstracts Service

CLP Regulation (EC) No 1272/2008 on classification,

labelling and packaging of substance and mixtures

DNEL Derived no-effect level

EINECS European Inventory of Existing Commercial

Chemical Substances

EmS Emergency plan

ES Identification code for each substance listed in EINECS

EU European Union

EuPCS European Product Categorisation System

IATA International Air Transport Association

IBC International Code For The Construction And

Equipment of Ships Carrying Dangerous Chemicals

ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods

INCI International Nomenclature of Cosmetic Ingredients

ISO International Organization for Standardization

IUPAC International Union of Pure and Applied Chemistry

LC50 Lethal concentration of a substance in which it can be

expected death of 50% of the population

LD50 Lethal dose of a substance in which it can be expected

death of 50% of the population log Kow Octanol-water

partition coefficient



MARPOL International Convention for the Prevention of

Pollution from Ships

OEL Occupational Exposure Limits

PBT Persistent, Bioaccumulative and Toxic
PNEC Predicted no-effect concentration

ppm Parts per million

REACH Registration, Evaluation, Authorisation and

Restriction of Chemicals

Agreement on the transport of dangerous goods by rail
UN Four-figure identification number of the substance or

article taken from the UN Model Regulations

UVCB Substances of unknown or variable composition,

complex reaction products or biological materials

VOC Volatile organic compounds

vPvB Very Persistent and very Bioaccumulative

Acute Tox. Acute toxicity

Aquatic Acute Hazardous to the aquatic environment

Aquatic Chronic Hazardous to the aquatic environment (chronic)

Carc. Carcinogenicity
Flam. Sol. Flammable solid

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.

REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.



The changes (which information has been added, deleted or modified)

The version 2.0 replaces the SDS version from 17 September 2019. Changes were made in sections 1,2,4,5,13, 15 and 16.

More information

Classification procedure - calculation method.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.

