

SECTION 1: Identification**1.1. Identification**

Product form	: Substance
Substance name	: NAPHTHALENE
Chemical name	: naphthalene
CAS-No.	: 91-20-3
Product code	: AEB2014
Formula	: C10H8
Synonyms	: NAPHTHALENE

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Laboratory chemicals

1.3. Supplier

Alpha Resources LLC
3090 Johnson Rd.
Stevensville, Michigan 49127
USA
T (269)465-5559
info@alpharesources.com - www.alpharesources.com

1.4. Emergency telephone number

Emergency number : CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2: Hazard(s) identification**2.1. Classification of the substance or mixture****GHS US classification**

Flammable solids Category 1	H228	Flammable solid
Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Carcinogenicity Category 2	H351	Suspected of causing cancer
Hazardous to the aquatic environment – Chronic Hazard Category 1	H410	Very toxic to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements**GHS US labeling**

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H228 - Flammable solid
H302 - Harmful if swallowed
H351 - Suspected of causing cancer
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
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/Bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
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 if you feel unwell.
P308+P313 - If exposed or concerned: Get medical advice/attention.

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P330 - Rinse mouth.
P370+P378 - In case of fire: Use media other than water to extinguish.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	GHS US classification
NAPHTHALENE (Main constituent)	CAS-No.: 91-20-3	100	Flam. Sol. 1, H228 Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Chronic 1, H410

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable solid.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Keep cool. Protect from sunlight. Keep away from ignition sources. Store locked up. Store in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

NAPHTHALENE (91-20-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Naphthalene
ACGIH OEL TWA [ppm]	10 ppm
Remark (ACGIH)	TLV® Basis: URT irr; cararacts; hemolytic anemia. Notations: Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
Regulatory reference	ACGIH 2024
USA - ACGIH - Biological Exposure Indices	
Local name	Naphthalene
BEI	Parameter: 1-Naphthol + 2-Naphthol (with hydrolysis) - Sampling time: End of shift - Notations: Nq, Ns
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Naphthalene
OSHA PEL TWA [1]	50 mg/m ³
OSHA PEL TWA [2]	10 ppm

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NAPHTHALENE (91-20-3)

Regulatory reference (US-OSHA) : OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Color : white
Odor : aromatic
Odor threshold : 0.003 ppm
pH : No data available.
Melting point : 80 °C Source: IPCS
Freezing point : Not applicable
Boiling point : 218 °C Source: IPCS
Flash point : 78.5 °C Atm. press.: 99 kPa
Relative evaporation rate (butyl acetate=1) : < 1
Flammability (solid, gas) : Flammable solid.
Vapor pressure : 0.085 mm Hg at 25°C Source: CHEM ID PLUS
Relative vapor density at 20°C : 4.42 Source: IPCS
Relative density : 1.085 Type: 'relative density' Temp.: 20 °C
Molecular mass : 128.17 g/mol Source: HSDB
Solubility : Water: 0.0031 g/100ml
Partition coefficient n-octanol/water (Log Pow) : 3.3 Source: hsb
Auto-ignition temperature : 540 °C Source: ipcs
Decomposition temperature : No data available
Viscosity, kinematic : Not applicable
Viscosity, dynamic : No data available
Explosion limits : Not applicable
Upper explosion limit: 0.9 – 5.9 % Source: ICSC
Explosive properties : No data available
Oxidizing properties : No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable solid.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

NAPHTHALENE (91-20-3)

LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	2500 mg/kg Source: ChemIDplus
LC50 Inhalation - Rat	> 0.4 mg/l air Animal: rat, Guideline: other:, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	2500 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: No data available.

Serious eye damage/irritation : Not classified
pH: No data available.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

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IARC group	2B - Possibly carcinogenic to humans
National Toxicity Program (NTP) Status	Reasonably anticipated to be Human Carcinogen

Reproductive toxicity : Not classified

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LOAEL (animal/female, F0/P)	50 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:
LOAEL (animal/female, F1)	450 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:
NOAEL (animal/female, F0/P)	120 mg/kg body weight Animal: rabbit, Animal sex: female, Guideline: other:

STOT-single exposure : Not classified

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STOT-repeated exposure : Not classified

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LOAEL (oral,rat,90 days)	400 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
LOAEC (inhalation,rat,vapor,90 days)	0.011 mg/l air Animal: rat, Guideline: EPA OPP 82-4 (90-Day Inhalation Toxicity), Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (oral,rat,90 days)	200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (dermal,rat/rabbit,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Aspiration hazard : Not classified

Viscosity, kinematic : Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

NAPHTHALENE (91-20-3)	
LC50 - Fish [1]	1.6 mg/l
EC50 - Crustacea [1]	2.16 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	1 mg/l
NOEC (chronic)	0.59 mg/l Test organisms (species): Daphnia pulex Duration: '125 d'

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

NAPHTHALENE (91-20-3)	
Partition coefficient n-octanol/water (Log Pow)	3.3 Source: hsbdb

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No : UN1334
UN-No. (TDG) : Not applicable
UN-No. (IMDG) : 1334
UN-No. (IATA) : 1334

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Naphthalene, refined
Proper Shipping Name (TDG) : Not applicable

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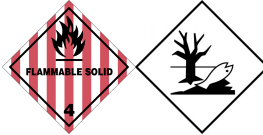
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Proper Shipping Name (IMDG) : NAPHTHALENE, REFINED
Proper Shipping Name (IATA) : Naphthalene, refined

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 4.1
Hazard labels (DOT) : 4.1



TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : 4.1
Hazard labels (IMDG) : 4.1



IATA

Transport hazard class(es) (IATA) : 4.1
Hazard labels (IATA) : 4.1



14.4. Packing group

Packing group (DOT) : III
Packing group (TDG) : Not applicable
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes



Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1334

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DOT Special Provisions (49 CFR 172.102)	: A1 - Single packaging are not permitted on passenger aircraft. B120 - The use of flexible bulk containers conforming to the requirements in subpart R and subpart S of part 178 of this subchapter is permitted. IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner. T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 151
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 213
DOT Packaging Bulk (49 CFR 173.xxx)	: 240
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 25 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 100 kg
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
TDG	
Emergency Response Guide (ERG) Number	: 133
IMDG	
Special provision (IMDG)	: 948, 967
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P002, LP02
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B3
Tank instructions (IMDG)	: T1, BK2, BK3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-G - SPILLAGE SCHEDULE Golf - FLAMMABLE SOLIDS AND SELF-REACTIVE SUBSTANCES
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW23
Properties and observations (IMDG)	: Crystalline flakes or powder with a persistent odour. Evolves flammable vapours at, or below, its melting point.
IATA	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y443
PCA limited quantity max net quantity (IATA)	: 10kg
PCA packing instructions (IATA)	: 446
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 449
CAO max net quantity (IATA)	: 100kg
Special provision (IATA)	: A803
ERG code (IATA)	: 3L

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

NAPHTHALENE (91-20-3)

Subject to reporting requirements of United States SARA Section 313
Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	100 lb
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Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
NAPHTHALENE	91-20-3	Present	Active	

15.2. International regulations

CANADA

NAPHTHALENE (91-20-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

NAPHTHALENE (91-20-3)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

NAPHTHALENE (91-20-3)

U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
No significant risk level (NSRL)	5.8 µg/day

SECTION 16: Other information

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Revision date : 9/26/2024

Full text of H-phrases	
H228	Flammable solid
H302	Harmful if swallowed
H351	Suspected of causing cancer

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Full text of H-phrases	
H410	Very toxic to aquatic life with long lasting effects

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.