

SAFETY DATA SHEET

Creation Date 27-Sep-2010

Revision Date 14-Feb-2020

Revision Number 2

1. Identification

Product Name Naphthalene

Cat No. : 33347

CAS-No 91-20-3
Synonyms Tar camphor; Naphthalin; Coal tar camphor

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.
Details of the supplier of the safety data sheet

Company

Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com
www.alfa.com

Emergency Telephone Number

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660.
After normal business hours, call Carechem 24 at (866) 928-0789.

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable solids	Category 2
Acute oral toxicity	Category 4
Carcinogenicity	Category 1B

Label Elements

Signal Word

Danger

Hazard Statements

Flammable solid
Harmful if swallowed
May cause cancer

**Precautionary Statements****Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects
WARNING. Cancer - <https://www.p65warnings.ca.gov/>.

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Naphthalene	91-20-3	>95

4. First-aid measures

General Advice

If symptoms persist, call a physician.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Inhalation

Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and

. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

effects**Notes to Physician**

Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray, carbon dioxide (CO ₂), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.
Unsuitable Extinguishing Media	No information available
Flash Point	78 °C / 172.4 °F
Method -	No information available
Autoignition Temperature	526 °C / 978.8 °F
Explosion Limits	
Upper	5.9 vol %
Lower	0.9 vol %
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Combustible material. Containers may explode when heated. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
2

Flammability
2

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Remove all sources of ignition. Take precautionary measures against static discharges.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
Methods for Containment and Clean Up	Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. Remove all sources of ignition.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Naphthalene	TWA: 10 ppm Skin	(Vacated) TWA: 10 ppm (Vacated) TWA: 50 mg/m ³ (Vacated) STEL: 15 ppm (Vacated) STEL: 75 mg/m ³ TWA: 10 ppm TWA: 50 mg/m ³	IDLH: 250 ppm TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm STEL: 75 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment**Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Characteristic
Odor Threshold	No information available
pH	No information available
Melting Point/Range	79 - 82 °C / 174.2 - 179.6 °F
Boiling Point/Range	218 °C / 424.4 °F
Flash Point	78 °C / 172.4 °F
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	5.9 vol %
Lower	0.9 vol %
Vapor Pressure	0.08 mbar @ 20 °C
Vapor Density	Not applicable
Specific Gravity	0.990
Solubility	slightly soluble
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	526 °C / 978.8 °F
Decomposition Temperature	540 °C
Viscosity	Not applicable
Molecular Formula	C ₁₀ H ₈
Molecular Weight	128.17

10. Stability and reactivity

Reactive Hazard	Yes
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Naphthalene	LD50 = 1110 mg/kg (Rat) LD50 = 490 mg/kg (Rat)	LD50 = 1120 mg/kg (Rabbit) LD50 > 20 g/kg (Rabbit)	LC50 > 340 mg/m ³ (Rat) 1 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Naphthalene	91-20-3	Group 2B	Reasonably Anticipated	A3	X	Not listed

IARC (International Agency for Research on Cancer)

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mutagenic Effects Not mutagenic in AMES Test

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects Developmental effects have occurred in experimental animals.

Teratogenicity Teratogenic effects have occurred in experimental animals.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information No information available

Other Adverse Effects Tumorigenic effects have been reported in experimental animals.

12. Ecological information

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Naphthalene	EC50: = 0.4 mg/L, 72h (Skeletonekema costatum)	LC50 96 h 1-6.5 mg/L (Pimephales promelas)	EC50 = 0.93 mg/L 30 min EC50 > 20 mg/L 18 h	EC50: 1.09 - 3.4 mg/L, 48h Static (Daphnia magna) EC50: = 1.96 mg/L, 48h Flow through (Daphnia magna) LC50: = 2.16 mg/L, 48h (Daphnia magna)

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility . Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Naphthalene	3.6

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Naphthalene - 91-20-3	U165	-

14. Transport information

DOT

UN-No UN1334
 Proper Shipping Name NAPHTHALENE, CRUDE
 Hazard Class 4.1
 Packing Group III

TDG

UN-No UN1334
 Proper Shipping Name NAPHTHALENE, CRUDE
 Hazard Class 4.1
 Packing Group III

IATA

UN-No UN1334
 Proper Shipping Name NAPHTHALENE, CRUDE
 Hazard Class 4.1
 Packing Group III

IMDG/IMO

UN-No UN1334

Proper Shipping Name NAPHTHALENE, CRUDE
Hazard Class 4.1
Packing Group III

15. Regulatory information

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags
Naphthalene	91-20-3	X	ACTIVE	-

Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

- - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Naphthalene	91-20-3	X	-	202-049-5	X	X	X	X	KE-25545

U.S. Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Naphthalene	91-20-3	>95	0.1

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Naphthalene	X	100 lb	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Naphthalene	X		-

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Naphthalene	100 lb 1 lb	-

California Proposition 65 This product contains the following Proposition 65 chemicals.

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Naphthalene	91-20-3	Carcinogen	5.8 µg/day	Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
-----------	---------------	------------	--------------	----------	--------------

Naphthalene	X	X	X	X	X
-------------	---	---	---	---	---

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Moderate risk, Grade 2

16. Other information

Prepared By Health, Safety and Environmental Department
Email: tech@alfa.com
www.alfa.com

Creation Date 27-Sep-2010
Revision Date 14-Feb-2020
Print Date 14-Feb-2020
Revision Summary SDS authoring systems update, replaces ChemGes SDS No. 91-20-3/3.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS