

SPI Supplies Division

Structure Probe, Inc.

206 Garfield Ave., West Chester, PA 19380-4512 USA

Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755

sales@2spi.com

<http://www.2spi.com>

Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: March 28, 2018

SPI Catalog #'s 02638-AA, 02638-AB, 02638-MB

SPI-Chem™ Brand Naphthalene

Section 1.1: Identification

Chemical Name/Synonyms Naphthalene; Naphthalin

Product or Trade Name SPI-Chem™ Brand Naphthalene

CAS #'s 91-20-3

Chemical Formula..... C₁₀H₈

Section 1.2: Relevant Uses/Restrictions

Laboratory chemical.

Not for food, drug, pesticide, or biocidal product use.

Section 1.3: Supplier of the Safety Data Sheet

SPI Supplies Division

Structure Probe, Inc.

206 Garfield Ave., West Chester, PA 19380-4512 USA

Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755

sales@2spi.com

<http://www.2spi.com>

Manufacturer's CAGE: 1P573

Section 1.4: Emergency telephone number

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-741-5970

Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable solids (category 2)

Acute oral toxicity (category 4)

Carcinogenicity (category 1B)

2.2 Label elements

Pictogram



Signal Word: Danger

Hazard statements:

- H228 Flammable solid
- H302 Harmful if swallowed
- H350 May cause cancer
- H410 Very toxic to aquatic life with long lasting effects

Precautionary statements:

- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P281 Use personal protective equipment as required
- P264 Wash face, hands, and any exposed skin thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P273 Avoid release to the environment
- P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray
- P271 Use only outdoors or in a well-ventilated area
- P210 Keep away from heat/ sparks/ open flames/ hot surfaces – No smoking
- P240 Ground/ bond container and receiving equipment
- P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment
- P308 + P313 If exposed or concerned: Get medical attention/ advice
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
- P370 + P378 In case of fire: Use CO₂, dry chemical, or foam for extinction.
- P405 Store locked up
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 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/>.

2.3 Other Hazards:

Hazardous Material Information System USA

Health 2
Fire Hazard 2

Reactivity 2
Personal Protection

NFPA Rating (estimated)

Health 2
Flammability 2
Reactivity 2

Section 3: Composition

3.1 Substances:

Naphthalene CAS # 91-20-3 EC # 202-049-5 >95%

Section 4: First Aid Measures

4.1 Description of first aid measures:

General Advice: If symptoms persist, call a physician.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

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

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

4.2 Most important symptoms and effects, both acute and delayed: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed:

Notes to Physician: Treat symptomatically.

Section 5: Fire Fighting Measures

5.1 Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Cool closed containers exposed to the fire with water.

5.2 Special hazards arising from the substance or mixture: Combustible material. Containers may explode when heated. Do not allow run-off from firefighting to enter drains or water courses.

Hazardous combustion products: Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters:

Special 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.

Flash Point: 78 °C (172.4 °F)

Auto-ignition Temperature: 526 °C (978.8 °F)

Explosion Limits:

Upper: 5.9 vol %

Lower: 0.9 vol %

Section 6: Accidental Release Measures

6.1 Personal precautions:

Use personal protective equipment.
Ensure adequate ventilation.
Avoid dust formation.
Remove all sources of ignition.
Take precautionary measures against static discharges.

6.2 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.

6.3 Methods and material for containment and cleaning up:

Sweep up or vacuum up spillage and collect in suitable container for disposal.
Keep in suitable, closed containers for disposal.
Remove all sources of ignition.

6.4 Reference to other sections:

See Section 13 for disposal information.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Protective measures:

Wear personal protective equipment.
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.

7.2 Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed in a dry, cool, and well-ventilated place.
Keep away from heat and sources of ignition.

7.3 Specific end uses:

Laboratory chemical.
This material is not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection:

Workplace exposure limits:

Naphthalene CAS # 91-20-3
ACGIH TLV: TWA: 10 ppm skin

OSH PEL: TWA: 10 ppm
TWA: 50 mg/m³
STEL (Vacated): 15 ppm
STEL (Vacated): 75 mg/m³

NIOSH IDLH: IDLH: 250 ppm
TWA: 10 ppm
TWA: 50 mg/m³
STEL: 15 ppm
STEL: 75 mg/m³

Mexico OEL (TWA): TWA: 10 ppm
TWA: 50 mg/m³
STEL: 15 ppm
STEL: 75 mg/m³

Biological limit values: No further relevant information available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

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.

8.2.2 Individual protection measures:

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: Long sleeved clothing.

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.

8.2.3 Environmental exposure controls:

Prevent product from entering drains, sewer systems, or ground water.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance: White, solid

Odor: Characteristic

Odor threshold: No information available

pH: No information available

Melting point/Freezing point: 79-82 °C (174.2-179.6 °F)

Boiling point/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

Upper/lower 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 in water

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: 526 °C (978.8 °F)

Decomposition temperature: 540 °C

Viscosity: Not applicable

Molecular Formula: C₁₀H₈

Molecular Weight: 128.17

9.2 Other information: No further relevant information available.

Section 10: Stability and Reactivity

10.1 Reactive Hazard: Yes

10.2 Chemical Stability: Stable under normal conditions.

10.3 Possibility of Hazardous Reactions: None under normal conditions.

10.4 Conditions to avoid: Incompatible products. Excess heat. Avoid dust formation. Keep away from open flames, hot surfaces, and sources of ignition.

10.5 Incompatible materials: Strong oxidizing agents.

10.6 Hazardous decomposition products: Carbon monoxide (CO), Carbon dioxide (CO₂)

10.6 Hazardous Polymerization: Hazardous polymerization does not occur.

Section 11: Toxicological Information

Information on the likely routes of exposure:

11.1 Information on toxicological effects:

A. Acute toxicity:

Naphthalene CAS # 91-20-3

LD50 Oral	LD50 Dermal	LC50 Inhalation
LD50 = 1110 mg/kg (Rat)	LD50 = 1120 mg/kg (Rabbit)	DC50 > 340 mg/m ³ (Rat) 1h
LD50 = 490 mg/kg (Rat)	LD50 > 20 g/kg (Rabbit)	

Toxicologically Synergistic Products: No information available.

B. Skin irritation: No information available.

C. Respiratory or skin sensitization: No information available.

D. Serious eye damage/irritation: Mild eye irritation.

E. Germ cell mutagenicity: Not mutagenic in AMES Test.

F. Carcinogenicity:

IARC (International Agency for Research on Cancer)

Group 2B – Possibly Carcinogenic to Humans.

NTP (National Toxicity Program)

Reasonably Anticipated to be a Human Carcinogen

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 – Animal Carcinogen

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

G. Reproductive toxicity:

Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental effects have occurred in experimental animals.

Teratogenic effects have occurred in experimental animals.

H. STOT-single exposure: None known.

I. STOT – repeated exposure: None known

J. Aspiration hazard: No information available.

Section 12: Ecological Information

12.1 Toxicity:

Very toxic to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

Naphthalene CAS # 91-20-3

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

12.2 Persistence and degradability:

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

12.3 Bio-accumulative potential:

No information available.

12.4 Mobility in soil:

Will likely be mobile in the environment, due to its water solubility. Log Pow=3.6.

12.5 Results of PBT and vPvB assessment: No information available.

12.6 Other adverse effects: No further relevant information available.

Section 13: Disposal Considerations**13.1 Waste treatment 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.

Naphthalene CAS# 91-20-3 RCRA – U Series Wastes: U165

Section 14: Transport Information**DOT:**

UN Number: UN1334
Proper Shipping Name: NAPHTHALENE, CRUDE
Hazard Class: 4.1
Packing Group: III

IATA:

UN Number: UN1334
Proper Shipping Name: NAPHTHALENE, CRUDE
Hazard Class: 4.1
Packing Group: III

IMDG:

UN Number: UN1334
Proper Shipping Name: NAPHTHALENE, CRUDE
Hazard Class: 4.1
Packing Group: III

Section 15: Regulatory Information**15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture:****U.S. Government Regulations:****SARA 313:**

Naphthalene CAS # 91-20-3 >95 weight % Threshold value: 0.1%

SARA 311/312 Hazard Categories:

Flammable solid (category 2)
Acute oral toxicity (category 4)
Carcinogenicity (category 1B)

CWA (Clean Water Act):

Naphthalene is listed as a Hazardous Substance, a Toxic Pollutant, and as a Priority Pollutant, with a Reportable Quantity of 100 lbs.

Clean Air Act:

Naphthalene is listed under HAPS Data (Hazardous Air Pollutants).

CERCLA (Comprehensive Environmental Response Compensation and Liability Act):

Naphthalene, CAS # 91-20-3, has a Reportable Quantity (RQ) of 100 lbs. under CERCLA.

U.S. Department of Homeland Security:

This product does not contain any DHS chemicals.

U.S. States:

California Prop. 65:

Naphthalene, CAS # 91-20-3, is listed as a Carcinogen with and NSRL of 5.8 ug/day.

U.S. State Right-to-Know Lists:

Naphthalene, CAS # 91-20-3, is listed on the Massachusetts, New Jersey, Pennsylvania, Illinois, and Rhode Island Right-to-Know Lists.

INTERNATIONAL INVENTORIES:

Naphthalene, CAS # 91-20-3, EC # 202-049-5, is listed on the following lists:

TSCA, DSL, PICCS, ENCS, AICS, IECSC, KECL

Other International Regulations:

Mexico, Grade: Moderate risk, Grade 2

15.2 Chemical Safety Assessment: Has not been carried out.

Date of Preparation: 28 March 2018.

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

CMRG: Chemical Manufacturer's Recommended Guidelines

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulative and Toxicological

vPvB: very Persistent and very Bio-accumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety Health

ATE: Acute Toxicity Estimates

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit

CEIL: Ceiling

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues or fluids.

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof, however SPI Supplies and Structure Probe, Inc. make no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assume no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. Be aware of the Structure Probe, Inc. Copyright Policy. Structure Probe, Inc. grants a nonexclusive license to make unlimited copies of this safety sheet for internal use only. Quite obviously, this information would pertain only to this material when purchased from SPI Supplies as product from other sources, with other ingredients and impurity levels could have substantially different properties.