SECTION 1: Identification

1.1. Identification
Product form : Substance
Trade name : Naphthalene, Molten
Chemical name : Naphthalene
CAS-No. : 91-20-3
Product code : NS-NAP78; NS-NAP79; NS-NAP80
Formula : C10H8
Synonyms : Naphthalene, molten / Naphthalene, crude / Naphthalenes / Moth balls / Naphthalene, molten / Naphthalene, crude / Naphthalenes / Moth balls

1.2. Recommended use and restrictions on use
Use of the substance/mixture : colorants, tanning agents, pharmaceuticals
Use of the substance/mixture : Chemical intermediate
Restrictions on use : Pesticides

1.3. Supplier
Monument Chemical
5501 West Baker Road
Baytown, TX 77520 - USA
T (281) 424-1255
sds@monumentchemical.com - www.monumentchemical.com

1.4. Emergency telephone number
Emergency number : 24 HR CHEMTREC: 1-800-424-9300 (International +1 703-741-5970); 24HR Emergency Assistance: 1-281-424-1255

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS US classification
Flammable solids H228 Flammable solid
Category 1 H302 Harmful if swallowed
Acute toxicity (oral) H351 Suspected of causing cancer
Category 4 Hazardous to the aquatic environment - Acute H400 Very toxic to aquatic life
Carcinogenicity Category 2 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
H400 - Very toxic to aquatic life
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.
Naphthalene, Molten
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P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P312 - If swallowed: Call a doctor, a POISON CENTER if you feel unwell
P308+P313 - If exposed or concerned: Get medical advice/attention.
P330 - Rinse mouth.
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder, Water spray 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)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>(CAS-No.) 91-20-3</td>
<td>97 - 100</td>
</tr>
</tbody>
</table>

(Main constituent)

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 : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a poison center or doctor/physician. Specific measures (see Consult a doctor/medical service on this label). Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. Harmful in contact with skin.
Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard.
Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Immediate medical attention and special treatment, if necessary
No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable solid.
Explosion hazard : May form flammable/explosive vapor-air mixture.
5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures: Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, Ventilation equipment.

Storage conditions: Keep only in the original container in a cool, well ventilated place away from: Ignition sources, Incompatible materials. Keep container closed when not in use. Heat sources. Direct sunlight. Keep in fireproof place.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Naphthalene (91-20-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USA - ACGIH - Occupational Exposure Limits</strong></td>
</tr>
<tr>
<td>Local name</td>
</tr>
<tr>
<td>ACGIH TWA (ppm)</td>
</tr>
<tr>
<td>Remark (ACGIH)</td>
</tr>
</tbody>
</table>

| **USA - OSHA - Occupational Exposure Limits** |
| Local name | Naphthalene |
| OSHA PEL (TWA) (mg/m³) | 50 mg/m³ |
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<table>
<thead>
<tr>
<th></th>
<th>OSHA PEL (TWA) (ppm)</th>
<th>10 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USA - IDLH - Occupational Exposure Limits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US IDLH (ppm)</td>
<td>250 ppm</td>
<td></td>
</tr>
<tr>
<td><strong>USA - NIOSH - Occupational Exposure Limits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>50 mg/m³</td>
<td></td>
</tr>
<tr>
<td>NIOSH REL (TWA) (ppm)</td>
<td>10 ppm</td>
<td></td>
</tr>
<tr>
<td>NIOSH REL (STEL) (mg/m³)</td>
<td>75 mg/m³</td>
<td></td>
</tr>
<tr>
<td>NIOSH REL (STEL) (ppm)</td>
<td>15 ppm</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls
No additional information available

8.3. Individual protection measures/Personal protective equipment

**Personal protective equipment:**
Avoid all unnecessary exposure.

**Hand protection:**
Wear protective gloves.

**Eye protection:**
Chemical goggles or safety glasses

**Respiratory protection:**
Wear appropriate mask

**Other information:**
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- **Physical state:** Solid
- **Appearance:** White crystalline solid.
- **Color:** clear amber
- **Odor:** mothballs
- **Odor threshold:** 0.3
- **pH:** 6
- **Melting point:** 176 °F
- **Freezing point:** No data available
- **Boiling point:** 424 °F
- **Flash point:** 79 °C
- **Relative evaporation rate (butyl acetate=1):** < 1
- **Flammability (solid, gas):** Flammable solid.
- **Vapor pressure:** 0.04 hPa (at 20 °C)
- **Relative vapor density at 20 °C:** 4.42
- **Relative density:** 0.975 at 185 °F
- **Specific gravity / density:** 1.0253 g/cm³ (at 20 °C)
- **Molecular mass:** 128.17
- **Solubility:** Water: 31 mg/l
- **Log Pow:** 3.6
- **Auto-ignition temperature:** 979 °F
- **Decomposition temperature:** No data available
- **Viscosity, kinematic:** 0.829 mm²/s
- **Viscosity, dynamic:** No data available
- **Explosion limits:** 0.9 - 5.9

09/11/2019 EN (English US)
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9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Flammable solid. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid

10.5. Incompatible materials
Strong acids. Strong bases.

10.6. Hazardous decomposition products

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 dermal rat : > 2500 mg/kg (Rat, Dermal)
LD50 dermal rabbit : > 2000 mg/kg body weight
LC50 inhalation rat (mg/l) : > 0.34 mg/l (Exposure time: 1 h)
ATE US (oral) : 533 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: 6

Serious eye damage/irritation : Not classified
pH: 6

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Naphthalene (91-20-3)

IARC group : 2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status : Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen

Reproductive toxicity : Not classified

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : 0.829 mm²/s

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. Harmful in contact with skin.

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.
SECTION 12: Ecological information

12.1. Toxicity
Ecology - water: Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Naphthalene (91-20-3)</th>
<th>LC50 fish 1</th>
<th>5.74 - 6.44 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EC50 Daphnia 1</td>
<td>2.16 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td>EC50 Daphnia 2</td>
<td>1.96 mg/l (Exposure time: 48 h - Species: Daphnia magna [flow through])</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
Naphthalene (91-20-3)
Persistence and degradability: Not established.

12.3. Bioaccumulative potential
Naphthalene (91-20-3)
BCF fish 1: 30 - 430
Log Pow: 3.6
Bioaccumulative potential: Not established.

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods
Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information: Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT

Transport document description: UN2304 Naphthalene, molten, 4.1, III
UN-No.(DOT): UN2304
Proper Shipping Name (DOT): Naphthalene, molten
Packing group (DOT): III - Minor Danger
Hazard labels (DOT): 4.1 - Flammable solid

Dangerous for the environment: Yes
Marine pollutant: Yes (IMDG Only)

DOT Packaging Non Bulk (49 CFR 173.xxx): 213
DOT Packaging Bulk (49 CFR 173.xxx): 241
DOT Special Provisions (49 CFR 172.102)

- IB1 - Authorized IBCs: Metal (31A, 31B and 31N). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 °C (1.1 bar at 122 °F), or 130 kPa at 55 °C (1.3 bar at 131 °F) are authorized.
- T1 - 1.5 178.274(d)(2) Normal.................. 178.275(d)(2)
- TP3 - The maximum degree of filling (in %) for solids transported above their melting points and for elevated temperature liquids shall be determined by the following: Degree of filling = 95 * \( \frac{dr}{df} \) Where: df and dr are the mean densities of the liquid at the mean temperature of the liquid during filling and the maximum mean bulk temperature during transport respectively.

DOT Packaging Exceptions (49 CFR 173.xxx)

- 151

DOT Vessel Stowage Location

- C - The material must be stowed “on deck only” on a cargo vessel and on a passenger vessel.

Emergency Response Guide (ERG) Number

- 133 (UN1334)

Other information

- No supplementary information available.

Transport by sea

Transport document description (IMDG)

- UN 1334 NAPHTHALENE, REFINED, 4.1, III, MARINE POLLUTANT

UN-No. (IMDG)

- 1334

Proper Shipping Name (IMDG)

- NAPHTHALENE, REFINED

Class (IMDG)

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

Packing group (IMDG)

- III - substances presenting low danger

Limited quantities (IMDG)

- 5 kg

Marine pollutant

- Yes

Air transport

Transport document description (IATA)

- UN 1334 Naphthalene, refined, 4.1, III

UN-No. (IATA)

- 1334

Proper Shipping Name (IATA)

- Naphthalene, refined

Class (IATA)

- 4.1 - Flammable solids

Packing group (IATA)

- III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

**Naphthalene (91-20-3)**

- Listed on the United States TSCA (Toxic Substances Control Act) inventory
- Subject to reporting requirements of United States SARA Section 313
- Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ

- 100 lb

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Naphthalene, Molten

| CAS-No. | 91-20-3 | 100% |

15.2. International regulations

**CANADA**

**Naphthalene (91-20-3)**

- Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**
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**National regulations**

<table>
<thead>
<tr>
<th>Naphthalene (91-20-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)</td>
</tr>
</tbody>
</table>

**15.3. US State regulations**

<table>
<thead>
<tr>
<th>Naphthalene (91-20-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California - Proposition 65 - Carcinogens List</td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Developmental Toxicity</td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</td>
</tr>
<tr>
<td>No significant risk level (NSRL)</td>
</tr>
</tbody>
</table>

**State or local regulations**

<table>
<thead>
<tr>
<th>U.S. - Massachusetts - Right To Know List</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

**WARNING:** This product can expose you to Naphthalene, Molten, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

**SECTION 16: Other information**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 09/11/2019
Other information : None.

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H228</th>
<th>Flammable solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H351</td>
<td>Suspected of causing cancer</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

**NFPA health hazard** : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

**NFPA fire hazard** : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

**NFPA reactivity** : 0 - Material that in themselves are normally stable, even under fire conditions.

SDS US (GHS HazCom 2012)
Naphthalene, Molten
Safety Data Sheet

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