

SAFETY DATA SHEET

Preparation Date: 6/13/2019

Revision date 6/13/2019

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: D1000
Product Name: DECAHYDRONAPHTHALENE

Other means of identification

Synonyms: Naphthalane, decahydro-
 Bicyclo(4.4.0)decane
 Perhydronaphthalene

CAS #: 91-17-8
RTECS # QJ3150000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Solvent.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

| | |
|--------------------------------------|------------|
| Acute toxicity - Inhalation (Vapors) | Category 3 |
| Skin corrosion/irritation | Category 1 |
| Serious eye damage/eye irritation | Category 1 |
| Aspiration toxicity | Category 1 |
| Flammable liquids | Category 3 |

Label elements

Danger

Hazard statements

Toxic if inhaled
 Causes severe skin burns and eye damage

May be fatal if swallowed and enters airways
Flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if swallowed
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention

Use only outdoors or in a well-ventilated area
Do not breathe mist or vapors
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response

Immediately call a POISON CENTER or physician
In case of fire: Use CO₂, dry chemical, or foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
IF SWALLOWED: Immediately call a POISON CENTER or physician
Do NOT induce vomiting
Rinse mouth

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No | Weight-% |
|----------------------|---------|----------|
| Decahydronaphthalene | 91-17-8 | 100 |

4. FIRST AID MEASURES

First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.
- Skin Contact:** Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Call a physician or Poison Control Centre immediately.
- Eye Contact:** Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

- Symptoms**
- Severe skin and eye irritation or burns
 - Aspiration hazard if swallowed - can enter the lungs and cause damage
 - Aspiration into the lungs may cause chemical pneumonitis
 - Aspiration into the lungs may cause pulmonary edema
 - May cause nausea, headache, vomiting
 - May affect the liver
 - It may affect the kidneys

Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical. Carbon dioxide (CO₂). Water spray. Foam.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products

Carbon Monoxide, Carbon Dioxide.

Specific hazards

Flammable. Will be easily ignited by heat, sparks or flames. Fire may produce irritating, corrosive and/or toxic gases. Vapor may travel considerable distance to source of ignition and flash back. Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks).

Special Protective Actions for Firefighters**Specific Methods:**

No information available

Special Protective Equipment for Firefighters:

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

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions:**

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. All equipment used when handling the product must be grounded. Use personal protective equipment. Evacuate personnel to safe areas. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. Pay attention to flashback. Use spark-proof tools and explosion-proof equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up**Methods for containment**

Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE**Precautions for safe handling****Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. Keep away from incompatible materials. All equipment used when handling the product must be grounded. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not ingest. Do not smoke. Keep away from heat and sources of ignition. Use only in well-ventilated areas. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible materials. Store at room temperature in the original container. Store in a segregated and approved area.

Incompatible Materials:

Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**National occupational exposure limits****United States**

| Component | CAS No | OSHA | NIOSH | ACGIH | AIHA WEEL |
|----------------------|---------|------|-------|-------|-----------|
| Decahydronaphthalene | 91-17-8 | None | None | None | None |

Canada

| Component | CAS No | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
|----------------------|---------|------------------|---------------------------|------------------|-----------------|
| Decahydronaphthalene | 91-17-8 | None | None | None | None |

Australia and Mexico

| Component | CAS No | Australia | Mexico |
|----------------------|---------|-----------|--------|
| Decahydronaphthalene | 91-17-8 | None | None |

Appropriate engineering controls**Engineering measures to reduce exposure:**

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment**Personal Protective Equipment**

- Eye protection:** Goggles or Face-shield.
- Skin and body protection:** Long sleeved clothing
Chemical resistant apron
Gloves
If working with large quantities:
Chemical resistant protective suit
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|--|---|--|
| Physical state: Liquid | Appearance: Clear. | Color: Colorless. |
| Odor: Slight. Menthol-like. | Taste No information available. | Formula C10-H18 |
| Molecular/Formula weight (g/mole): 138.24 | Flammability (solid, gas) Flammable | Flashpoint (°C/°F): 54-58 °C/129-136 °F |
| Flash Point Tested according to: Closed cup | Autoignition Temperature (°C/°F): 250°C/482 °F | Lower Explosion Limit (%): 0.7% @ 100 deg. C |
| Upper Explosion Limit (%): 4.9 @ 100 deg. C | Melting point/range(°C/°F): -43 °C/-45 °F | Decomposition temperature(°C/°F): No information available |
| Boiling point/range(°C/°F): 170.56°C/ 339°F | Bulk density: No information available | Density (g/cm3): No information available |
| Specific gravity: 0.8965 @ 22 deg. C | pH No information available | Vapor pressure @ 20°C (kPa): 0.31 kPa @ 25 deg. C |
| Evaporation rate: No information available | Vapor density: 4.76 | VOC content (g/L): No information available |
| Odor threshold (ppm): No information available | Partition coefficient (n-octanol/water): No information available | Viscosity: No information available |
| Miscibility: Miscible with ketones Miscible with esters Miscible with propyl alcohol and isopropyl alcohol | Solubility: Practically insoluble in water Very soluble in chloroform Very soluble in Ether Very soluble in Methanol | |

10. STABILITY AND REACTIVITY

Reactivity

Reactive with strong oxidizing agents

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents

Hazardous decomposition products: Carbon monoxide. Carbon dioxide.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Eyes. Inhalation. Ingestion.

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document
Component Information

| | |
|----------------------|---------|
| Decahydronaphthalene | |
| CAS No | 91-17-8 |

LD50/oral/rat = 4170 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = 5900 mg/kg Dermal LD50 Rabbit; 5900 µL/kg Dermal LD50 Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 710 ppm Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
Value - Acute Toxicity = 4170 mg/kg

LD50/oral/mouse =
Value - Acute Tox = No information available

LD50/dermal/rabbit
Value - Acute Toxicity = 5900 mg/kg

LD50/dermal/rat
VALUE - Acute Tox = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Contact causes severe skin irritation and possible burns.

Eye Contact: Causes severe irritation and burns.

Inhalation May cause irritation of respiratory tract. May cause nausea, vomiting. May cause headache.

Ingestion Aspiration hazard if swallowed. Aspiration may lead to pulmonary edema. Aspiration into the lungs can cause chemical pneumonitis.

Aspiration hazard May be fatal if swallowed and enters airways.

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

Chronic Toxicity Prolonged or repeated inhalation may affect the liver. Prolonged or repeated inhalation may affect the kidneys.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

| Component | CAS No | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Notifiable Carcinogenic Substances | Australia - Prohibited Carcinogenic Substances |
|----------------------|---------|------------|---------------------|------------|------------------------|--|--|
| Decahydronaphthalene | 91-17-8 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

| Component | CAS No | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|----------------------|---------|------------------------|------------------------|------------------------|------------------------|
| Decahydronaphthalene | 91-17-8 | None | None | None | None |

14. TRANSPORT INFORMATION

DOT

UN-No: UN1147
Proper Shipping Name: Decahydronaphthalene
Hazard Class 3
Subsidiary Class No information available
Packing group: III
Emergency Response Guide Number 130
Marine Pollutant No data available
DOT RQ (lbs): No information available
Special Provisions B1, IB3, T2, TP1
Symbol(s): No information available
Description: UN1147, Decahydronaphthalene, 3, III

TDG (Canada)

UN-No: UN1147
Proper Shipping Name: Decahydronaphthalene
Hazard Class 3
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No Information available
Description: UN1147, Decahydronaphthalene, 3, III

ADR

UN Number UN1147
Proper Shipping Name: Decahydro-naphthalene
Transport hazard class(es) 3
Packing group III
Subsidiary Risk: No information available
Description: UN1147, Decahydro-naphthalene, 3, III

IMDG

UN-No: UN1147
Proper Shipping Name: Decahydronaphthalene
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No information available
EMS: F-E
Description UN1147, Decahydronaphthalene, 3, III

RID

UN Number UN1147

Proper Shipping Name: Decahydronaphthalene
Transport hazard class(es) 3
Subsidiary Risk: No information available
Packing group III
Description: UN1147, Decahydronaphthalene, 3, III

ICAO (air)

UN-No: UN1147
Proper Shipping Name: Decahydronaphthalene
Hazard Class 3
Subsidiary Risk: No information available
Packing Group: III
Description: UN1147, Decahydronaphthalene, 3, III

IATA

UN Number UN1147
Proper Shipping Name: Decahydronaphthalene
Transport hazard class(es) 3
Subsidiary Risk: No information available
Packing group III
Precautionary Statements - Response 3L
Special Provisions No information available
Description: UN1147, Decahydronaphthalene, 3, III

15. REGULATORY INFORMATION

International Inventories

| Component | CAS No | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | China IECSC | Australia (AICS) | EINECS-No. |
|----------------------|---------|---------------|------------------|---------------------|-----------------|-------------|------------------|-------------------|
| Decahydronaphthalene | 91-17-8 | PresentACTIVE | Present KE-02852 | Present | Present (4)-575 | Present | Present | Present 202-046-9 |

U.S. Regulations

Decahydronaphthalene

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0599
Pennsylvania RTK: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

| Component | CAS No | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|----------------------|---------|------------|------------------------|----------------------------|-------------------------------|
| Decahydronaphthalene | 91-17-8 | Not Listed | Not Listed | Not Listed | Not Listed |

CERCLA/SARA

| Component | CAS No | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting de minimis |
|-----------|--------|---|---|--|---------------------------------|------------------------------------|
| | | | | | | |

| | | | | | | |
|----------------------|---------|------|------|------|------|------|
| Decahydronaphthalene | 91-17-8 | None | None | None | None | None |
|----------------------|---------|------|------|------|------|------|

U.S. TSCA

| Component | CAS No | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|----------------------|---------|---|--|
| Decahydronaphthalene | 91-17-8 | Not Applicable | Not Applicable |

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Decahydronaphthalene
91-17-8 (100)

WHMIS 2015 Hazard Classification
Flammable liquids - Category 3: H226 Flammable liquid and vapour.; Acute toxicity - Inhalation - Category 3: H331 Toxic if inhaled.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation.; Aspiration hazard - Category 1: H304 May be fatal if swallowed and enters airways.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

| Component | CAS No | Canada (DSL) | Canada (NDSL) |
|----------------------|---------|--------------|---------------|
| Decahydronaphthalene | 91-17-8 | Present | Not Listed |

| Component | CAS No | CEPA Schedule I - Toxic Substances |
|----------------------|---------|---|
| Decahydronaphthalene | 91-17-8 | Not listed |
| Component | CAS No | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
| Decahydronaphthalene | 91-17-8 | Not listed |

EU Classification

EU GHS - SV - CLP 1272/2008

| Component | CAS No | EU GHS - SV - CLP (1272/2008) |
|----------------------|---------|-------------------------------|
| Decahydronaphthalene | 91-17-8 | |

EU - CLP (1272/2008)

R-phrase(s)

R34 - Causes burns
R25 - Toxic if swallowed
R10 - Flammable

S -phrase(s)

S 9 - Keep container in a well-ventilated place.
S16 - Keep away from sources of ignition - No smoking
S33 - Take precautionary measures against static discharges

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S23 - Do not breathe gas/fumes/vapor/spray

| Component | CAS No | Classification | Concentration Limits: | Safety Phrases |
|----------------------|---------|----------------|-----------------------|----------------|
| Decahydronaphthalene | 91-17-8 | | No information | |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

T - Toxic
C - Corrosive
Flammable



16. OTHER INFORMATION

Preparation Date: 6/13/2019
Revision date 6/13/2019
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet