

Preparation Date: 01/01/2019

Revision Date: N/A

Revision Number: N/A

**1. Identification****Product identifier****Product Name** N-DECANE**Other means of identification****Product Code(s)** C9502**UN/ID no** UN2247**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended use** No information available**Restrictions on use** No information available**Details of the supplier of the safety data sheet****Supplier Address****Dawn Scientific Inc**

121 Liberty Street, Metuchen, NJ, 08840

Tel : 732-902-6300 | Fax : 973-802-1005

sales@dawnscientific.com | www.dawnscientific.com

**Emergency telephone number****Emergency Telephone** Chemtrec 1-800-424-9300**2. Hazard(s) identification****Classification**

|                         |            |
|-------------------------|------------|
| Acute toxicity - Dermal | Category 4 |
| Aspiration hazard       | Category 1 |
| Flammable liquids       | Category 3 |

**Hazards not otherwise classified (HNOC)**

Not applicable

**Label elements****Danger****Hazard statements**

Harmful in contact with skin

May be fatal if swallowed and enters airways

Flammable liquid and vapor



**Appearance** No information available

**Physical state** Liquid

**Odor** No information available

#### Precautionary Statements - Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use explosion-proof electrical/ ventilating / lighting/ .? / equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Wear protective gloves/protective clothing/eye protection/face protection

#### Precautionary Statements - Response

Specific treatment (see .? on this label)

Call a POISON CENTER or doctor if you feel unwell

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Wash contaminated clothing before reuse

IF SWALLOWED: Immediately call a POISON CENTER or doctor

Do NOT induce vomiting

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

#### Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

#### Unknown acute toxicity

#### Other information

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

### 3. Composition/information on ingredients

#### Substance

| Chemical name | CAS No   | Weight-% | Trade secret |
|---------------|----------|----------|--------------|
| n-Decane      | 124-18-5 | 100      | *            |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

#### Description of first aid measures

##### General advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

##### Inhalation

Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.

|   |   |
|---|---|
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.  |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.  |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention.                  |
| <b>Self-protection of the first aider</b> | Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. |

#### **Most important symptoms and effects, both acute and delayed**

**Symptoms** Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

#### **Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.

### **5. Fire-fighting measures**

|  |   |
|--|---|
| <b>Suitable Extinguishing Media</b><br><b>Large Fire</b> | Dry chemical. Carbon dioxide (CO <sub>2</sub> ). water spray. Alcohol resistant foam.<br>CAUTION: Use of water spray when fighting fire may be inefficient.   |
| <b>Unsuitable extinguishing media</b>                    | Do not scatter spilled material with high pressure water streams.   |
| <b>Specific hazards arising from the chemical</b>        | risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| <b>Explosion data</b>                                    |   |
| <b>Sensitivity to mechanical impact</b>                  | none.   |
| <b>Sensitivity to static discharge</b>                   | yes.  |
| <b>Special protective equipment for fire-fighters</b>    | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.  |

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

|                             |  |
|-----------------------------|--|
| <b>Personal precautions</b> | Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. |
| <b>Other information</b>    | Ventilate the area. Refer to protective measures listed in Sections 7 and 8.   |

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

|                                |   |
|--------------------------------|---|
| <b>Methods for containment</b> | Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other |
|--------------------------------|---|

non-combustible material and transfer to containers for later disposal.

**Methods for cleaning up**

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## **7. Handling and storage**

**Precautions for safe handling**

**Advice on safe handling**

Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

## **8. Exposure controls/personal protection**

**Control parameters**

**Exposure Limits**

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

**Appropriate engineering controls**

**Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Tight sealing safety goggles.

**Hand protection**

Wear suitable gloves. Impervious gloves.

**Skin and body protection**

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

**Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Liquid                   |
| Appearance     | No information available |
| Color          | colorless                |
| Odor           | No information available |
| Odor threshold | No information available |

| <u>Property</u>                        | <u>Values</u>              | <u>Remarks • Method</u> |
|--|----------------------------|-------------------------|
| pH                                     | no data available          | None known              |
| Melting point / freezing point         | -27.9 °C / -18.2 °F        | None known              |
| Boiling point / boiling range          | 174.1 °C / 345.4 °F        | None known              |
| Flash point                            | 46 °C / 114.8 °F           | None known              |
| Evaporation rate                       | no data available          | None known              |
| Flammability (solid, gas)              | no data available          | None known              |
| Flammability Limit in Air              |                            | None known              |
| Upper flammability or explosive limits | 5.4%                       |                         |
| Lower flammability or explosive limits | 0.8%                       |                         |
| Vapor pressure                         | No data available          | None known              |
| Vapor density                          | 4.9                        | None known              |
| Relative density                       | 0.73                       | None known              |
| Water solubility                       | No data available          | None known              |
| Solubility(ies)                        | partially soluble Methanol | None known              |
| Partition coefficient                  | No data available          | None known              |
| Autoignition temperature               | 210 °C / 410 °F            | None known              |
| Decomposition temperature              |                            | None known              |
| Kinematic viscosity                    | no data available          | None known              |
| Dynamic viscosity                      | No data available          | None known              |

### Other information

|                      |                          |
|----------------------|--------------------------|
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Softening point      | No information available |
| Molecular weight     | No information available |
| VOC Content (%)      | No information available |
| Liquid Density       | No information available |
| Bulk density         | No information available |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.                 |
| Chemical stability                 | Stable under normal conditions.           |
| Possibility of hazardous reactions | None under normal processing.             |
| Conditions to avoid                | Heat, flames and sparks.                  |
| Incompatible materials             | None known based on information supplied. |
| Hazardous decomposition products   | None known based on information supplied. |

## 11. Toxicological information

### Information on likely routes of exposure

Product Information

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract.                      |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. May cause irritation.  |
| <b>Skin contact</b> | Repeated exposure may cause skin dryness or cracking. May be absorbed through the skin in harmful amounts. Harmful in contact with skin. (based on components).  |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. |

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

**Acute toxicity**

**Numerical measures of toxicity**

**Unknown acute toxicity**

> 5000 1369 ppm

| Chemical name        | Oral LD50            | Dermal LD50          | Inhalation LC50        |
|----------------------|----------------------|----------------------|------------------------|
| n-Decane<br>124-18-5 | > 5000 mg/kg ( Rat ) | > 2000 mg/kg ( Rat ) | > 1369 ppm ( Rat ) 8 h |

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

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | No information available.                     |
| <b>Serious eye damage/eye irritation</b> | No information available.                     |
| <b>Respiratory or skin sensitization</b> | No information available.                     |
| <b>Germ cell mutagenicity</b>            | No information available.                     |
| <b>Reproductive toxicity</b>             | No information available.                     |
| <b>STOT - single exposure</b>            | No information available.                     |
| <b>STOT - repeated exposure</b>          | No information available.                     |
| <b>Aspiration hazard</b>                 | May be fatal if swallowed and enters airways. |
| <b>Other adverse effects</b>             | No information available.                     |
| <b>Interactive effects</b>               | No information available.                     |

**12. Ecological information**

**Ecotoxicity** Very toxic to aquatic life with long lasting effects.

| Chemical name        | Algae/aquatic plants                          | Fish | Toxicity to microorganisms | Crustacea                                |
|----------------------|---|------|----------------------------|--|
| n-Decane<br>124-18-5 | EC50: =0.043mg/L (24h,<br>Chlorella vulgaris) | -    | -                          | EC50: =0.029mg/L (48h,<br>Daphnia magna) |

**Persistence and degradability** No information available.  
**Bioaccumulation** Inherently biodegradable.

**Component Information**

| Chemical name        | Partition coefficient |
|----------------------|-----------------------|
| n-Decane<br>124-18-5 | 5.1                   |

**Other adverse effects** No information available.

## 13. Disposal considerations

### Waste treatment methods

|  |  |
|--|--|
| <b>Waste from residues/unused products</b> | Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| <b>Contaminated packaging</b>              | Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.  |

## 14. Transport information

### DOT

|  |                          |
|--|--------------------------|
| <b>UN/ID no</b>                        | UN2247                   |
| <b>Proper Shipping Name:</b>           | n-Decane                 |
| <b>Hazard class</b>                    | 3                        |
| <b>Packing group:</b>                  | III                      |
| <b>Special Provisions</b>              | B1, IB3, T2, TP1         |
| <b>Marine Pollutant</b>                | Severe Marine Pollutant  |
| <b>Description:</b>                    | UN2247, n-Decane, 3, III |
| <b>Emergency Response Guide Number</b> | 128                      |

### TDG

|                              |                          |
|------------------------------|--------------------------|
| <b>UN-No:</b>                | UN2247                   |
| <b>Proper Shipping Name:</b> | n-Decane                 |
| <b>Hazard class</b>          | 3                        |
| <b>Packing Group:</b>        | III                      |
| <b>Description:</b>          | UN2247, n-Decane, 3, III |

### MEX

|                             |                          |
|-----------------------------|--------------------------|
| <b>UN-No</b>                | UN2247                   |
| <b>Proper Shipping Name</b> | n-Decane                 |
| <b>Hazard class</b>         | 3                        |
| <b>Packing Group</b>        | III                      |
| <b>Description</b>          | UN2247, n-Decane, 3, III |

### ICAO (air)

|                              |                          |
|------------------------------|--------------------------|
| <b>UN-No:</b>                | UN2247                   |
| <b>Proper Shipping Name:</b> | n-Decane                 |
| <b>Hazard class</b>          | 3                        |
| <b>Packing Group:</b>        | III                      |
| <b>Description:</b>          | UN2247, n-Decane, 3, III |

### IATA

|                                   |                          |
|-----------------------------------|--------------------------|
| <b>UN number</b>                  | UN2247                   |
| <b>Proper Shipping Name:</b>      | n-Decane                 |
| <b>Transport hazard class(es)</b> | 3                        |
| <b>Packing group</b>              | III                      |
| <b>Description:</b>               | UN2247, n-Decane, 3, III |

### IMDG

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| <b>UN number</b>                  | UN2247                                |
| <b>Proper shipping name</b>       | n-Decane                              |
| <b>Transport hazard class(es)</b> | 3                                     |
| <b>Packing group</b>              | III                                   |
| <b>EmS-No</b>                     | F-E, S-E                              |
| <b>Marine pollutant</b>           | NP1                                   |
| <b>Description</b>                | UN2247, n-Decane, 3, III, (46°C c.c.) |

**RID**

|                            |                          |
|----------------------------|--------------------------|
| UN number                  | UN2247                   |
| Proper Shipping Name:      | n-Decane                 |
| Transport hazard class(es) | 3                        |
| Packing group              | III                      |
| Classification code        | F1                       |
| Description:               | UN2247, n-Decane, 3, III |
| Labels                     | 3                        |

**ADR**

|                            |                               |
|----------------------------|-------------------------------|
| UN number                  | 2247                          |
| Proper Shipping Name:      | n-Decane                      |
| Transport hazard class(es) | 3                             |
| Packing group              | III                           |
| Classification code        | F1                            |
| Tunnel restriction code    | (D/E)                         |
| Description:               | 2247, n-Decane, 3, III, (D/E) |
| Labels                     | 3                             |

**ADN**

|                            |                          |
|----------------------------|--------------------------|
| UN/ID No                   | UN2247                   |
| Proper shipping name       | n-Decane                 |
| Transport hazard class(es) | 3                        |
| Packing Group              | III                      |
| Classification code        | F1                       |
| Description                | UN2247, n-Decane, 3, III |
| Hazard label(s)            | 3                        |
| Limited quantity (LQ)      | 5 L                      |
| ventilation                | VE01                     |
| Equipment Requirements     | PP, EX, A                |

**15. Regulatory information****International Inventories**

|                      |   |
|----------------------|---|
| <b>TSCA</b>          | Complies  |
| <b>DSL/NDSL</b>      | Complies  |
| <b>EINECS/ELINCS</b> | Complies  |
| <b>ENCS</b>          | This product complies with ENCS:  |
| <b>IECSC</b>         | This product complies with China:   |
| <b>KECL</b>          | Complies  |
| <b>PICCS</b>         | Complies  |
| <b>AICS</b>          | All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS). |

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### **U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

### **U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

## **16. Other information**

### **NFPA**

**Health hazards** 2

**Flammability** 2

**Instability** 0

**Physical and chemical properties** -

### **HMIS**

**Health hazards** 2

**Flammability** 2

**Physical hazards** 0

**Personal protection** X

### **Key or legend to abbreviations and acronyms used in the safety data sheet**

#### **Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         |      |                                  |

### **Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEG L(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** N/A  
**Revision Note** No information available.

**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 Safety Data Sheet**