

## 1 Identification

- **Product identifier**
- **Trade name:** *N-Decane, Certified Grade*
- **Article number:** 300051
- **CAS Number:**  
124-18-5
- **EC number:**  
204-686-4
- **Molecular Formula** C10 H22
- **Molecular Weight** 142.29
- **Application of the substance / the mixture** For Research Use Only
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
MP Biomedicals, LLC  
29525 Fountain Parkway  
Solon, OH 44139  
United States  
www.mpbio.com
- **Information department:** Quality Control Department
- **Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- **Label elements**

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

*N-Decane*

- **Hazard statements**

*Flammable liquid and vapor.*

*May be fatal if swallowed and enters airways.*

- **Precautionary statements**

*Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*

*Keep container tightly closed.*

*Ground/bond container and receiving equipment.*

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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.  
 If swallowed: Immediately call a poison center/doctor.  
 Do NOT induce vomiting.  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
 Store in a well-ventilated place. Keep cool.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

124-18-5 N-Decane

· **Identification number(s)**

· **EC number:** 204-686-4

### 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Consult your Doctor. Show the safety data sheet to the Doctor. Away from the dangerous area.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Flush eyes with running water as a precaution.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

No further relevant information available.

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### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Pick up mechanically, dispose contaminated material as waste according to Section 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:

6.6 ppm

· PAC-2:

73 ppm

· PAC-3:

440 ppm

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Avoid direct contact with skin. Use protective clothing including gloves, lab coat, face/eye protection.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** 15-30°C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:**
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see Section 7.

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- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Indeterminate
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

#### · Change in condition

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

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· <b>Danger of explosion:</b>	<i>Not determined.</i>
· <b>Explosion limits:</b>	
<b>Lower:</b>	<i>Not Applicable</i>
<b>Upper:</b>	<i>Not Applicable</i>
· <b>Vapor pressure:</b>	<i>Not Applicable</i>
· <b>Density:</b>	<i>Not Applicable</i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapor density</b>	<i>Not determined.</i>
· <b>Evaporation rate</b>	<i>Not determined.</i>
· <b>Solubility in / Miscibility with</b>	<i>Not Determined</i>
· <b>Water:</b>	<i>Not determined.</i>
· <b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
<b>Dynamic:</b>	<i>Not determined.</i>
<b>Kinematic:</b>	<i>Not determined.</i>
<b>Organic solvents:</b>	<i>100.0 %</i>
<b>VOC content:</b>	<i>100.00 %</i>
	<i>1,000.0 g/l / 8.35 lb/gl</i>
· <b>Other information</b>	<i>No further relevant information available.</i>

## 10 Stability and reactivity

- **Reactivity** *No further relevant information available.*
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

### · LD/LC50 values that are relevant for classification:

#### ATE (Acute Toxicity Estimate)

Dermal	LD50	5,000 mg/kg (rat)
Inhalative	LC50/4 h	5.6 mg/L (rat)

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Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rat)
Inhalative	LC50/4 h	5.6 mg/L (rat)

- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *Irritant and potentially harmful*

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- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

**ATE (Acute Toxicity Estimate)**

Oral LC50 / 96 h | 1,000 mg/L (Oncorhynchus mykiss)

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Oral LC50 / 96 h | 1,000 mg/L (Oncorhynchus mykiss)

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Can not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Discard must be made according to official regulations.

## 14 Transport information

- **UN-Number**

· **DOT, ADR, IMDG, IATA** UN2247

- **UN proper shipping name**

· **DOT** n-Decane

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· **ADR** 2247 *n-Decane*  
 · **IMDG, IATA** *n-DECANE*

· **Transport hazard class(es)**· **DOT**

· **Class** 3 *Flammable liquids*  
 · **Label** 3

· **ADR, IMDG, IATA**

· **Class** 3 *Flammable liquids*  
 · **Label** 3

· **Packing group**· **DOT, ADR, IMDG, IATA** III· **Environmental hazards:** *Not applicable.*· **Special precautions for user** *Warning: Flammable liquids*· **Danger code (Kemler):** 30· **EMS Number:** 3-07· **Stowage Category** A

· **Transport in bulk according to Annex II of  
 MARPOL73/78 and the IBC Code** *Not applicable.*

· **Transport/Additional information:**· **DOT**

· **Quantity limitations** *On passenger aircraft/rail: 60 L*  
*On cargo aircraft only: 220 L*

· **ADR**

· **Excepted quantities (EQ)** *Code: E1*  
*Maximum net quantity per inner packaging: 30 ml*  
*Maximum net quantity per outer packaging: 1000 ml*

· **IMDG**

· **Limited quantities (LQ)** 5L  
 · **Excepted quantities (EQ)** *Code: E1*  
*Maximum net quantity per inner packaging: 30 ml*  
*Maximum net quantity per outer packaging: 1000 ml*

· **UN "Model Regulation":** UN 2247 *N-DECANE, 3, III*

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## 15 Regulatory information

· *Safety, health and environmental regulations/legislation specific for the substance or mixture*

· *Sara*

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02    GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*N-Decane*

· **Hazard statements**

*Flammable liquid and vapor.*

*May be fatal if swallowed and enters airways.*

· **Precautionary statements**

*Keep away from heat/sparks/open flames/hot surfaces. - 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.*

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

*If swallowed: Immediately call a poison center/doctor.*

*Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.*

*Store in a well-ventilated place. Keep cool.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** Quality Control Dept.

· **Date of preparation / last revision** 07/17/2018 / -

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Flam. Liq. 3: Flammable liquids – Category 3*

*Asp. Tox. 1: Aspiration hazard – Category 1*