



Material Safety Data Sheet

1. Product and Company Identification

Product name : **N-Decane**

Chemical formula : C-H₃-(C-H₂)₈-C-H₃

Synonyms : Decane; Decyl hydrde; Normal-Decane; UN 2247

Company : Specialty Gases of America, Inc
6055 Brent Dr.
Toledo, OH 43611

Telephone : 419-729-7732

Emergency : 800-424-9300

2. Composition/Information on Ingredients

Components	CAS Number	% Volume
N-Decane	124-18-5	100%

3. Hazards Identification

Emergency Overview

May cause respiratory tract irritation, skin irritation, eye irritation, central nervous system depression.
Flash back hazard. Combustible liquid and vapor.

Potential Health Effects

Inhalation : Irritation (possibly severe), sore throat, headache, drowsiness, symptoms of drunkenness, dizziness.

Eye contact : Irritation (possibly severe), tearing.

Skin contact : Irritation (possibly severe), itching.

Ingestion : Gastrointestinal irritation, nausea, vomiting, diarrhea, symptoms of drunkenness, aspiration hazard.

Chronic Health Hazard : None.

4. First Aid Measures

General advice : None.

Eye contact : Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Skin contact : Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Ingestion : If a large amount is swallowed, get medical attention.

Inhalation : If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

5. Fire-Fighting Measures

- Suitable extinguishing media : Regular dry chemical, carbon dioxide, regular foam, water.
Large fires: Use regular foam or flood with fine water spray.
- Specific hazards : Moderate fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive above flash point.
- Fire fighting : Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after the fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Evacuation radius: 800 meters (1/2 mile). Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

6. Accidental Release Measures

- Occupational spill/release : Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry.
- Additional advice : None.

7. Handling and Storage

Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

Storage

Store in accordance with all current regulations and standards. Store in a tightly closed container. Store in a cool, dry place. store in a well-ventilated area. Store outside or in a detached building. Protect from physical damage. Avoid contact with light. Subject to storage regulations: U.S. OSHA 29 CFR 1910.106. Grounding and bonding required. Keep separated from incompatible substances.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH, OSHA and NIOSH have not developed exposure limits for any of this product's components.

Engineering measures/Ventilation

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Personal protective equipment

- Respiratory protection : Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.
Any chemical cartridge respirator with organic vapor cartridge(s).
Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).

Any air-purifying respirator with a full facepiece and an organic vapor canister.
For unknown concentrations or immediately dangerous to life or death – Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

- Hand protection : Wear appropriate chemical resistant gloves.
Eye protection : Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin and body protection : Wear appropriate chemical resistant clothing.

9. Physical and Chemical Properties

- Form : Liquid.
Color : Colorless.
Odor : Gasoline odor.
Molecular weight : 142.29
Vapor pressure : 1.4 mmHg @ 25°C
Vapor density : 4.9 (air = 1)
Specific gravity : 0.7298 – 0.734 (water = 1)
Boiling point : 340 – 345°F (171 – 174°C)
Melting point : -26 to -20°F (-32 to -29°C)
Evaporation rate : < 1 (butyl acetate = 1)
Water solubility : 0.009 ppm
Solvent solubility : Soluble: alcohol, ethanol, ether, organic solvents.
Slightly soluble: carbon tetrachloride.

10. Stability and Reactivity

- Stability : Stable at normal temperatures and pressure.
Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.
Materials to avoid : Oxidizing materials.
Hazardous decomposition products : Thermal decomposition products: oxides of carbon.

11. Toxicological Information

The components of this material have been reviewed in various sources and the following endpoints are published:

- N-DECANE (124-18-5) : Inhalation LC50 Mouse: 72300 mg/m³/2H; Oral LC50 Rat: > 5000 mg/kg;
Dermal LD50 Rat: > 2000 mg/kg

Acute Toxicity Level

- N-DECANE (124-18-5) : Slightly toxic: Inhalation

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

Local Effects

N-DECANE (124-18-5) : Irritant: Inhalation, skin, eye

Target Organs

N-DECANE (124-18-5) : Central nervous system

12. Ecological Information

Aquatic Toxicity

N-DECANE (124-18-5) : Algae: 24 Hr EC50 *Chlorella vulgaris*: 0.043 mg/L
Invertebrate: 48 Hr EC50 *Daphnia magna*: 0.029 mg/L

13. Disposal Considerations

Waste from residues / unused products : Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.
Contaminated packaging : Return cylinder to supplier.

14. Transport Information

DOT (US only)

Proper shipping name : n-Decane
Class : 3, Packing Group III
UN/ID No. : UN2247
Labeling : Flammable Liquid

15. Regulatory Information

U.S. Federal Regulations

None of this product's components are listed under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA 311/312

Acute: Yes
Chronic: No
Fire: Yes
Reactive: No
Pressure: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
N-DECANE	124-18-5	No	No	No	Yes	Yes	Yes

Not regulated under California Proposition 65

16. Other Information

Prepared by : Specialty Gases of America, Inc.
For additional information, please visit our website at www.americangasgroup.com.