



Material Safety Data Sheet

1. Product and Company Identification

Product name : **N-Octane**

Chemical formula : C₈H₁₈

Synonyms : Octane; UN 1262

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-Octane	111-65-9	100%

3. Hazards Identification

Emergency Overview

Flammable liquid and vapor. Vapor may cause flash fire.
May cause respiratory tract irritation, skin irritation, eye irritation, central nervous system depression.

Potential Health Effects

Inhalation : Irritation, nausea, difficulty breathing, headache, drowsiness, symptoms of drunkenness. May cause nerve damage in long term exposure.

Eye contact : Irritation.

Skin contact : Irritation, blisters.

Ingestion : Nausea, vomiting, stomach pain, headache, symptoms of drunkenness, lung congestion.

Chronic Health Hazard : None known.

4. First Aid Measures

General advice : None.

Eye contact : Immediately 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 : Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

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.
Note to physicians : For ingestion, consider gastric lavage.

5. Fire-Fighting Measures

Suitable extinguishing media : Regular dry chemical, regular foam, water, carbon dioxide.
Large fires: Use regular foam or flood with fine water spray.
Specific hazards : Severe fire hazard. Vapor/air mixtures are explosive above flash point. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back.
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, 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). Water may be ineffective.

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.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH : 300 ppm TWA
OSHA (final) : 500 ppm TWA; 2350 mg/m³ TWA
OSHA (vacated) : 375 ppm STEL; 1800 mg/m³ STEL
300 ppm TWA; 1450 mg/m³ TWA
NIOSH : 75 ppm TWA; 350 mg/m³ TWA
385 ppm Ceiling 15 min; 1800 mg/m³ Ceiling 15 min

IDLH

1000 ppm

Engineering measures/Ventilation

Ensure compliance with applicable exposure limits. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present.

Personal protective equipment

- Respiratory protection : The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.
750 ppm – Any supplied-air respirator.
1000 ppm – Any supplied-air respirator operated in a continuous-flow mode.
Any self-contained breathing apparatus with a full facepiece.
Any supplied-air respirator with a full facepiece.
Emergency or planned entry into unknown concentrations or IDLH conditions –
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
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.
Escape – Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted canister providing protection against the compound of concern.
Any appropriate escape-type, self-contained breathing apparatus.
- Hand protection : Wear appropriate chemical resistant gloves.
- Eye protection : Wear splash resistant safety goggles. 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 : 114.23
Vapor pressure : 11 mmHg @ 20°C
Vapor density : 3.9 (air = 1)
Boiling point : 126°C
Melting point : -57°C
Water solubility : Insoluble.
Specific gravity : 0.71 (water = 1)
Solvent solubility : Soluble: ether, acetone, benzene, chloroform, gasolines, petroleum ether.
Slightly soluble: alcohol.

10. Stability and Reactivity

- Stability : Stable under normal conditions.
- 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, peroxides, combustible 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-OCTANE (111-65-9) : Inhalation LC50 Rat: 118 m/m3/4H; Inhalation LC50 Rat: 25260 ppm/4H

Acute Toxicity Level

N-OCTANE (111-65-9) : Slightly toxic: inhalation.

Component Carcinogenicity

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

Local Effects

N-OCTANE (111-65-9) : Irritant: inhalation, skin, eye.

Target Organs

N-OCTANE (111-65-9) : Central nervous system.

Medical Conditions Aggravated by Exposure

Liver disorders, kidney disorders, respiratory disorders, skin disorders and allergies.

12. Ecological Information

Aquatic Toxicity

N-OCTANE (111-65-9) : Invertebrate: 48 Hr EC50 water flea: 0.38 mg/L

13. Disposal Considerations

Waste from residues / unused products : Dispose in accordance with all applicable regulations.
Contaminated packaging : Return cylinder to supplier.

14. Transport Information

DOT (US only)

Proper shipping name : Octanes
Class : 3, Packing Group II
UN/ID No. : UN1262
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: No
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-OCTANE	111-65-9	Yes	Yes	Yes	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.