Material Safety Data Sheet

1. Product and Company Identification

Product name : **Dodecane**

Chemical formula : C12-H26

Synonyms : Dihexyl; N-Dodecane; Bihexyl; Duodecane; Adakane 12

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
Dodecane	112-40-3	100%

3. Hazards Identification

Emergency Overview

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

Potential Health Effects

Inhalation : Irritation, symptoms of drunkenness.

Eye contact : Irritation.

Skin contact : Irritation.

Ingestion : Difficulty breathing, symptoms of drunkenness, bluish skin color, lung congestion.

Chronic Health Hazard : None.

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. Give large amount of water or milk. When vomiting occurs, keep head lower than hips to help 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 not breathing, oxygen should be administered by

qualified personnel. Get immediate medical attention.

5. Fire-Fighting Measures

Suitable extinguishing media	:	Carbon dioxide, regular dry chemical, water, regular foam. Large fires: User 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 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 nozzle until well after 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. Stop flow of gas.

6. Accidental Release Measures

Occupational spill/release	:	Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. 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. 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. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. 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 supplied-air respirator with a full facepiece that is operated in a 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.
For unknown concentrations or immediately dangerous to life or health – 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	:	Not available.
Molecular weight	:	170.38
Vapor pressure	:	0.3 mmHg @ 20°C
Vapor density	:	5.9 (air = 1)
Specific gravity	:	0.75 (water = 1)
Boiling point	:	421°F (216°C)
Melting point	:	14°F (-10°C)
Water solubility	:	Insoluble.
Solvent solubility	:	Soluble: alcohol, ether, acetone, chloroform

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 selected endpoints are published:

DODECANE (112-40-3)	:	Inhalation LC50 Rat: >142 ppm/8H

Component Carcinogenicity

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

Local Effects

DODECANE (112-40-3)	:	Irritant: inhalation, skin, eye

Target Organs

DODECANE (112-40-3)	:	Central nervous system

12. Ecological Information

No LOLI ecotoxicity data are available for this product's components.

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	:	Combustible liquid, n.o.s. (Contains: DODECANE)
Class	:	Combustible liquid, Packing Group III
UN/ID No.	:	NA1993
Labeling	:	None

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 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

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA or RI.

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.