

SAFETY DATA SHEET (SDS)

GHS and OSHA 29 CFR §1910.1200 (eCFR) compliant

UN1066



Revision: 3 (May 11, 2015)
ISSUE DATE: December 30, 2014

NITROGEN, COMPRESSED GAS N₂,

Nitrogen Technical, Nitrogen (Oil Free), Nitrogen (Oil tolerant), UHP (Ultra High Purity),
Calibrating Gas High Purity Nitrogen (99.998 TO 100% <10 PPM Moisture)

STOODY INDUSTRIAL AND WELDING SUPPLY, INC.
3316 National Ave., San Diego, Ca. 92113
Phone: 619-234-6750

WWW.STOODYIND.COM

PHONE NUMBERS
Product Information: 619-234-6750

24-hour Emergency Response
Professional Emergency Resource Services
800-633-8253

MILITARY EMERGENCY RESPONSE
800-851-8061

Cl. 1, Tech. Grade B	Cl. 1, Tech. Grade A	Cl. 1, Ultra High Purity	Cl. 2, Tech. Grade B	Calibrating Gas
6830-01-028-9402	6830-00-656-1596	6830-00-758-6475	6830-01-250-2888	6830-01-168-8488
6830-01-265-4068			6830-01-283-8777	
6830-01-267-9591				
6830-01-431-0639				

SUPPLIER INFORMATION:

Safety and handling equipment, gas cylinders and refills, personal protection equipment, fire extinguishers, cylinder services, respirators, etc. are available at Stody Industrial and Welding Supply, Inc. Our main location is at 3316 National Avenue, (near the 32nd Street Naval Base) in San Diego California 92113. Call 1-619-234-6750 or visit our web site, stodyind.com for more information.

DISCLAIMER: The information contained herein is accurate to the best of our knowledge. Stody Industry and Welding Supply Inc., does not assume any responsibility or liability for user's reliance or consequences of reliance on the information provided in this SDS. **Stody industrial and Welding Supply, Inc. makes no warranty or guarantee of any kind, expressed or implied, concerning the safe use of this material in your process or in combination with other substances.**

'STOODY INDUSTRIAL AND WELDING SUPPLY, INC.' is not sponsored, affiliated or in any way related to 'STOODY COMPANY', a division of 'Victor Technologies'.

SAFETY DATA SHEET (SDS)

GHS and OSHA 29 CFR §1910.1200 (eCFR) compliant



NITROGEN, Compressed Gas

1 IDENTIFICATION

1(a) Product identifier used on label

Nitrogen, Technical compressed gas

1(b) Other means of identification: Class 1 Nitrogen (Oil Free); Calibrating Gas High Purity Nitrogen (99.998 to 100.0% <10PPM Moisture). Nitrogen (Oil tolerant); Class 2 Nitrogen (Oil tolerant).

1(c) Recommended use of the chemical and restrictions on use

Recommended use: Class 1 Nitrogen is used for applications that cannot tolerate hydrocarbons such as purging oxygen equipment. Class 2 Nitrogen is only used for systems that can tolerate or contain hydrocarbon material.

Restriction on use: Cylinders contaminated with oil cannot be used for Class 1 Nitrogen. UHP*, High Purity and Technical Grades A and B are not to be used in reactor plant, steam plant, and shipyard application, use CGA Grade E (UHP, A-A-59155).

1(d) Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Chemical Manufacturer: **STOODY INDUSTRIAL AND WELDING SUPPLY, INC**
3316 National Avenue
San Diego, CA 92113
619-234-6750

1(e) Emergency phone number

Professional Emergency Resource Services: 800-633-8253

Military Emergency Resource: 800-851-8061


*UHP = Ultra High Purity

2 HAZARD(S) IDENTIFICATION

2(a) Classification of chemical in accordance with paragraph (d) of §1910.1200

Nonflammable

2(b) Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200

Signal Word	Hazard Statement(s)	Symbol(s)	Precautionary Statements
Warning	(H280) Contains Gases under Pressure; may explode if heated.	 Compressed Gas	(P410 + P403) Protect from sunlight. Store in a well-ventilated place.

2(c) Describe any hazard not otherwise classified that have been identified during the classification process

Class 2 Nitrogen can not be used in applications or systems that cannot tolerate hydrocarbon material, as purging oxygen equipment.

Large amount of potential energy resulting from compression of the gas makes the cylinder a potential rocket or fragmentation bomb.

2(d) Where an ingredient with unknown acute toxicity is used in a mixture at a concentration = 1% and the mixture is not classified based on testing of the mixture as a whole, a statement that X% of the mixture consist of ingredient(s) of unknown acute toxicity is required.

Nitrogen consists of 0% of unknown acute toxicity

3 COMPOSITION / INFORMATION ON INGREDIENTS

3(a) Chemical name; N2

3(b) Common name; Nitrogen, compressed gas

3(c) CAS number and other unique identifiers;

CAS Number
7727-37-9

Other unique identifiers

No applicable information is available.

3(d) Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance.

CAS number 7727-37-9, Nitrogen contains no other classification influencing impurities or stabilizing additives.

4 FIRST-AID MEASURES

4(a) Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

ROUTES OF EXPOSURE (UNDER NORMAL CONDITIONS) (yes or no)

INHALATION: Yes	SKIN: Yes	EYE CONTACT: Yes	INGESTION: No
Effects: Simple asphyxiant	Effects: None known	Effects: None known	Effects: None known

RAPIDLY EXPANDING STATE ROUTES OF EXPOSURE (yes or no)

INHALATION: Yes	SKIN: Yes	EYE CONTACT: Yes	INGESTION: No
Effects: Simple asphyxiant	Effects: frostbite	Effects: frostbite	Effects: None expected

4 FIRST-AID MEASURES (continued from page 1)

FIRST-AID: (No action shall be taken involving any personal risk or without suitable training.)

Inhalation (asphyxiation); persons suffering from lack of oxygen should be removed to fresh air. If victim is not breathing, administer artificial respiration. If breathing is difficult, administer oxygen. Obtain prompt medical attention.

Skin frostbite; flush with lukewarm water, and obtain immediate medical attention. **DO NOT RUB EFFECTED AREA.**

Eye frostbite; flush eyes with cool water for 15 minutes and obtain immediate medical attention.

Ingestion; Not a potential route of exposure.

5 FIRE-FIGHTING MEASURES

5(a) Suitable (and unsuitable) extinguishing media

Use extinguishing media appropriate, e.g., dry chemical or CO₂, for surrounding fire.

Move containers from fire area if you can do it without risk.

Damaged cylinders should be handled only specialists.

5(b) Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products).

Pressure in a cylinder can build due to nearby fire heat and may rupture if pressure relief devices should fail to function. Self-contained breathing apparatus (SCBA) may be required for rescue workers.

6 ACCIDENTAL RELEASE MEASURES

6(a) Personal precautions, protective equipment, emergency procedures.

Evacuate all personnel from the affected area. Monitor oxygen level ($\geq 19.5\%$). Use appropriate air-fed respirator or self-contained breathing apparatus if oxygen level is unknown or $< 19.5\%$. Shut off leak source when it can be done safely. Prevent from accumulating in low sewers basements and work pits. If leaking from cylinder or cylinder valve, contact your supplier.

6(b) Method and materials for containment and cleaning up.

Ventilate area. Isolate area until gas has dissipated and been determined safe.

7 HANDLING AND STORAGE

7(a) Precautions for safe handling.

See 2(b) Also see Para. 1(c)

7(b) Conditions for safe storage, including any incompatibilities.

Conditions for safe storage	Incompatibilities
<ol style="list-style-type: none"> 1. Store and use with adequate ventilation. 2. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling or being knocked over. 3. Protect cylinders from physical damage; do not drag, roll, slide or drop. 4. Full and empty cylinders should be segregated. 5. Do not allow storage area temperature to exceed 125°F (52°C). Full and empty cylinders should be segregated. 6. Use a first-in, first-out inventory system to prevent full containers from being stored for long periods of time. 7. Compressed gas cylinders to be refilled by qualified producers of compressed gases only. 8. Use a suitable hand truck for cylinder movement. 9. Never attempt to lift a cylinder by its valve protection cap. 10. Keep cylinders and their valves free from oil and grease. 11. Open valve slowly. 12. If user experiences difficulty operating cylinder valve, discontinue use and contact supplier. 13. Never insert an object (e.g., wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing a leak to occur. 14. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit. 15. Use an adjustable strap wrench to remove over-tight or rusted caps. 	<p>See Para 1(c)</p>

3

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8(a) OSHA permissible exposure limit (PEL), American Conference of Governments Industrial Hygienists (ACGIH) Threshold Limits Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.** — PEL: Simple Asphyxiant — TLV: Simple Asphyxiant
Maritime: 29 CFR 1915.1000 Table Z-Shipyards -- Simple asphyxiants. The limiting factor is the available oxygen which shall be at least 18 percent and be within the requirements addressing explosion in subpart B of part 1915.
- 8(b) Appropriate engineering controls.**
 Natural or mechanical air circulation is needed to maintain oxygen levels.
- 8(c) Individual protection measures, such as personal protective equipment.**
 Safety glasses/goggles, work gloves (gloves must be clean and free of oil or grease), and safety shoes are recommended when handling cylinders.

9 PHYSICAL and CHEMICAL PROPERTIES

a) Appearance (physical state, color, etc.)	Colorless Gas
b) Odor	Odorless
c) Odor threshold	Not applicable
d) pH	Not applicable
e) Melting point/freezing point	-345.8°F (-209.9° C)
f) Initial boiling point	-320.4°F (-195.8°C)
g) Flash point	Not applicable
h) Evaporation rate	Not applicable
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Not applicable
k) Vapor pressure	760 mmHg @ -196° C
l) Vapor density	0.97 g/m @ 69.8° F (21.1° C)
m) Relative density	1.38 (air = 1)
n) Solubility(ies)	In water: 1.6% @ 20° C
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Will not occur
q) Decomposition temperature	Not applicable
r) Viscosity	0.0225 cP @ 80.3° F (26.85°C)

10 STABILITY and REACTIVITY

- 10(a) Reactivity**
 None under normal use
- 10(b) Chemical stability**
 Stable
- 10(c) Possibility of hazardous reactions**
 None found
- 10(d) Conditions to avoid (e.g., static discharge, shock, or vibration)**
 See Para. 1(c)
- 10(e) Incompatible materials**
 Strong oxidizing agents
- 10(f) Hazardous decomposition products**
 Will not occur.

11 TOXICOLOGICAL INFORMATION

Description of the various toxicological (health) effects and available data used to identify those effects, including:

- 11(a) Information on likely routes of exposure (inhalation, ingestion, skin and eye contact);**
 Asphyxiation, Nitrogen can be absorbed into the body by inhalation.
- 11(b) Symptoms related to the physical, chemical and toxicological characteristics;**
 Dizziness, unconsciousness, asphyxia; skin, eye frostbite (on contact with liquid).

Continued on next page

SDS - NITROGEN, Compressed Gas

11 TOXICOLOGICAL INFORMATION (continued from page 3)

- 11(c) **Delayed and immediate effects and also chronic effects from short- and long-term exposure;**
None
- 11(d) **Numerical measures of toxicity (such as acute toxicity estimates);**
No identifiable acute toxicity.
- 11(e) **Whether the hazardous chemical is listed in the International Toxicology Program (NTP) Report on Carcinogenic (latest edition) or has been found to be a potential carcinogenic in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.**
Nitrogen is not listed as a carcinogenic or potential carcinogenic by NTP, OSHA or IARC.

12 ECOLOGICAL INFORMATION

- 12(a) **Ecotoxicity (aquatic and terrestrial, where available)**
This product does not contain ecotoxicological properties, aquatic or terrestrial
- 12(b) **Persistence and degradability**
No adverse information found
- 12(c) **Bioaccumulative potential**
This product does not have a bioaccumulative potential
- 12(d) **Mobility in soil**
No adverse information found
- 12(e) **Other adverse effects (such as hazardous to the ozone layer)**
No adverse ecological effects are expected. Nitrogen does not contain any Class I or Class II ozone depleting chemicals (40 CFR Part 82). Nitrogen is not listed as a marine pollutant by DOT (49 CFR Part 171).

13 DISPOSAL CONSIDERATIONS

- 13(a) **Description of waste residue and information on their safe handling and method of disposal, including the disposal of any contaminated packaging.**
Do not attempt to dispose of cylinder or its contents. Cylinder(s) and unused contents should be returned to supplier for disposal in accordance with appropriate Federal, State, local regulation. Materials are to be recovered to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

14 TRANSPORTATION INFORMATION

- 14(a) **UN number:** UN 1066
- 14(b) **UN proper shipping name:** Nitrogen, compressed
- 14(c) **Transportation hazard class(es):** 2.2 (Nonflammable Gas)
- 14(d) **Packing group, if applicable:** Product is not listed
- 14(e) **Environmental hazards (e.g.,) Marine pollutant (yes/No):** No
- 14(f) **Transport in bulk (according to Annex II of MARPOL 73/78 and IBC Code):**
Product does not fall under purview of cited regulations.
- 14(g) **Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside of their premises:**
Cylinders should be properly separated from non-compatible gas cylinders and transported in a upright, secure position, in a well ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards and should be discouraged.

15 REGULATORY INFORMATION

- 15(a) **Safety, health and environmental regulations specific for the product in question.**

User(s) of this product is responsible for regulatory compliance on a federal, state, and local level.

U.S. FEDERAL REGULATIONS:

EPA - ENVIRONMENTAL PROTECTION AGENCY

40 CFR PART 68, Risk Management for Chemical Accidental Release, does not list nitrogen as a regulated substance.

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (40 CFR Parts 117 and 302):
Reportable Quantity (RQ): None

Continued on next page

SDS - NITROGEN, Compressed Gas

15 REGULATORY INFORMATION (continued from page 4)

SARA: Superfund Amendment and Reauthorization Act

SECTION 302/304: Requires emergency planning on threshold planning quantities (TPQ) and release reporting based on reportable quantities (RQ) of EPA's extremely hazardous substances (40 CFR Part 355).
 Extremely Hazardous Substances: None
 Threshold Planning Quantity (TPQ): None

SECTIONS 311/312: Require submission of material safety data sheets (MSDSs) and chemical inventory reporting with identification of EPA defined hazard classes (40 CFR Part 370). The hazard classes for this product are:

ACUTE HEALTH (Immediate): Yes CHRONIC HEALTH (Delayed): No
 PRESSURE: Yes REACTIVITY: No
 FIRE: No

TSCA: Toxic Substance Control Act: Nitrogen is listed on the TSCA inventory.

OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:
 29 CFR 1910.119, Appendix A, does not list Nitrogen as a highly hazardous chemical.

No adverse ecological effects are expected. Nitrogen does not contain any Class I or Class II ozone depleting chemicals (40 CFR Part 82). Nitrogen is not listed as a marine pollutant by DOT (49 CFR Part 171).

Shipment of compressed gas cylinders which have not been filled with the owner's consent is a violation of Federal law (49 CFR Part 173.301 (b)).

CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): Nitrogen is not listed.

CANADIAN REGULATIONS: WHIMS Classification: A – Compressed Gas

16 OTHER INFORMATION, including date of preparation or last revision

16(a) OTHER INFORMATION:

DO NOT DISCHARGE TOWARD ANYONE

SPECIAL PRECAUTIONS: Use piping and equipment adequately designed to withstand pressures to be encountered. Use a check valve or other protective apparatus in any line or piping from the cylinder to prevent reverse flow.

NFPA NFPA RATINGS:

HEALTH-Blue: = 1 FLAMMABILITY-Red: = 0 INSTABILITY-Yellow: = 0 SPECIAL HAZARDS*-White: = SA

LEGEND: 0-4 – 0-least hazardous; 4-most hazardous

**OX (Oxidizers), W (Water reactives), SA (Simple Asphyxiants), (blank if no special hazard)*

STANDARD VALVE CONNECTIONS FOR U.S. AND CANADA:

THREADED: 0-3000 psig	CGA 580 RH Female (Oil free)
3001-5000 psig	CGA 680 RH Female (Oil free)
5501-7500 psig	CGA 677 LH Male (Oil free)
3000 psig and below	CGA 590 LH Female (Oil tolerant)
3000 to 5500 psig	CGA 621 LH Male (Oil tolerant)

PIN-INDEXED YOKE: CGA 960 (Medical Use)

ULTRA HIGH INTEGRITY: 0-3000 psi CGA 718

Use the proper CGA connections, **DO NOT USE ADAPTER**

SUPPLIER INFORMATION:

Safety and handling equipment, gas cylinders and refills, personal protection equipment, fire extinguishers, cylinder services, respirators, etc. are available at Stoodly Industrial and Welding Supply, Inc. Our main location is at 3316 National Avenue, (near the 32nd Street Naval Base) in San Diego California 92113. Call 1-619-234-6750 or visit our web site, stodyind.com for more information.

Revision: 3 (May 11, 2015)
ISSUE DATE: December 30, 2014

Information Sources: Data is compiled from a variety of sources, including publicly available documents, internal data and other sources.

DISCLAIMER: The information contained herein is accurate to the best of our knowledge. Stoodly Industry and Welding Supply Inc., does not assume any responsibility or liability for user's reliance or consequences of reliance on the information provided in this SDS. **Stoodly industrial and Welding Supply, Inc. makes no warranty or guarantee of any kind, expressed or implied, concerning the safe use of this material in your process or in combination with other substances.**

'STOODY INDUSTRIAL AND WELDING SUPPLY, INC.' is not sponsored, affiliated or in any way related to 'STOODY COMPANY', a division of 'Victor Technologies'