

STOODY INDUSTRIAL AND WELDING SUPPLY, INC.

MATERIAL SAFETY DATA SHEET (MSDS)**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** Air, compressed**CHEMICAL NAME:** Air**CHEMICAL FAMILY:** Nonflammable gas**FORMULA:** N/A**SYNONYMS:** Medical Air, Breathing Air, Compressed Air**NAME AND ADDRESS:**STOODY INDUSTRIAL AND WELDING SUPPLY, INC.
3316 National Avenue
San Diego, CA 92113**TELEPHONE:****Emergency Phone: (800) 633-8253 (24 hr.)****Routine information call: (619) 234-6750**

Weekdays 7:30 AM – 5:00 PM

[USE]: Various**2. COMPOSITION/INFORMATION ON INGREDIENTS**

INGREDIENT NAME /CAS NUMBER	PERCENTAGE	OSHA PEL	ACGIH TLV
Air/132259-10-0	100%	None	None

[LD₅₀]: None. **[LC₅₀]:** None.**3. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW:****CAUTION** High pressure gas.
May accelerate combustion.**POTENTIAL HEALTH EFFECTS INFORMATION:****ROUTES OF EXPOSURE:****INHALATION:** At atmospheric pressure air has no adverse health effects. For elevated pressure exposure see Section 11 - Toxicological Information.**EYE CONTACT:** Not applicable.**SKIN CONTACT:** Not applicable.**[SKIN ABSORPTION]:** Not applicable.**[INGESTION]:** Not applicable.**CHRONIC EFFECTS:** None established.**MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** None**OTHER EFFECTS OF OVEREXPOSURE:** None**CARCINOGENICITY:** Air is not listed by NTP, OSHA or IARC.**4. FIRST AID MEASURES****INHALATION:** Not applicable**EYE CONTACT:** None.**SKIN CONTACT:** None.**INGESTION:** None.**NOTES TO PHYSICIAN:** Not applicable**5. FIRE FIGHTING MEASURES****FLASH POINT:** Not applicable.**AUTOIGNITION:** Not applicable.**FLAMMABLE LIMITS IN AIR BY VOLUME:****LOWER:** Not applicable. **UPPER:** Not applicable.**EXTINGUISHING MEDIA:** Air is nonflammable but will support combustion. Use extinguishing media appropriate for surrounding fire.**SPECIAL FIRE FIGHTING INSTRUCTIONS:** Evacuate all personnel from the danger area. If possible, shut off flow of air which is supporting the fire. Immediately cool containers with water spray from maximum distance. When cool, move containers from fire area, if without risk.

STOODY INDUSTRIAL AND WELDING SUPPLY, INC.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Compressed air at high pressures may accelerate combustion of other materials. Upon exposure to intense heat or flame, cylinder will vent rapidly and or rupture violently. Most cylinders are designed to vent contents when exposed to elevated temperatures.

Pressure in a container can build up due to heat and it may rupture if pressure relief devices should fail to function.

HAZARDOUS COMBUSTION PRODUCTS: None

[SENSITIVITY TO STATIC DISCHARGE]: None

[SENSITIVITY TO MECHANICAL IMPACT]: None

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Shut off source of air, if possible. If leaking from cylinder or its valve, contact your supplier.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN STORAGE: Store and use with adequate ventilation. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling or being knocked over. Protect cylinders from physical damage; do not drag, roll, slide or drop. Do not allow storage area temperature to exceed 125° F (52° C). Full and empty cylinders should be segregated. Use a first-in, first-out inventory system to prevent full containers from being stored for long periods of time.

PRECAUTIONS TO BE TAKEN IN HANDLING: Use a suitable hand truck for cylinder movement. Never attempt to lift a cylinder by its valve protection cap. Keep cylinders and their valves free from oil and grease. Open valve slowly. If user experiences difficulty operating cylinder valve, discontinue use and contact supplier. 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. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit. Use an adjustable strap wrench to remove over-tight or rusted caps. For additional precautions in using air see Section 16 - Other Information.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**ENGINEERING CONTROLS:**

VENTILATION: None required

RESPIRATORY PROTECTION (SPECIFY TYPE):

General Use: Not required.

Emergency Use: Not required.

PROTECTIVE GLOVES: Work gloves are recommended when handling cylinders. If used, gloves must be clean and free of oil and grease.

EYE PROTECTION: Safety glasses are recommended when handling cylinders.

OTHER PROTECTIVE EQUIPMENT: Safety shoes are recommended when handling cylinders.

9. PHYSICAL AND CHEMICAL PROPERTIES

MOLECULAR WEIGHT: 28.975

BOILING POINT (1 ATM): -317.8° F (-194.3° C)

SPECIFIC GRAVITY (Air =1): At 70° F (21.1° C) and 1 atm: 1.00

FREEZING POINT/MELTING POINT: At 1 atm: -357.2° F (-216.2° C)

VAPOR PRESSURE (AT 20° C): Not applicable

GAS DENSITY: At 70° F (21.1° C) and 1 atm: 0.07493 lb/cu ft (1.2 kg/cu m³)

EVAPORATION RATE (Butyl Acetate=1): Gas, not applicable.

SOLUBILITY IN WATER: Vol/Vol at 32° F (0° C): 0.0292

EXPANSION RATIO: Not applicable.

[pH]: Not applicable

APPEARANCE, ODOR AND STATE: Colorless, odorless and tasteless gas at normal temperature and pressure.

[COEFFICIENT OF WATER/OIL DISTRIBUTION]: Not Applicable

[ODOR THRESHOLD]: Not applicable

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: None

INCOMPATIBILITY (Materials to Avoid): None.

REACTIVITY:

A) **HAZARDOUS DECOMPOSITION PRODUCTS:** None

B) **HAZARDOUS POLYMERIZATION:** Will not occur.

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11. TOXICOLOGICAL INFORMATION

Air is nontoxic and is necessary to support life. Inhalation of air in high pressure environments can result in symptoms similar to overexposure to oxygen. These include tingling of fingers, impaired coordination, and confusion. Decompression sickness (Bends) is possible following rapid decompression. Decompression equipment may be required if exposed to high pressure environment.

ADDITIONAL NOTES TO PHYSICIAN: None

[IRRITANCY OF MATERIAL]: None

[SENSITIZATION TO MATERIAL]: None

[REPRODUCTIVE EFFECTS]: None

[TERATOGENICITY]: None

[MUTAGENICITY]: None .

[SYNERGISTIC MATERIALS]: None

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier. For emergency disposal, secure the cylinder and slowly discharge gas to the atmosphere.

14. TRANSPORT INFORMATION

DOT/IMO SHIPPING NAME: Air, compressed

HAZARD CLASS: 2.2 (Nonflammable Gas)

IDENTIFICATION NUMBER: UN 1002

[PIN]: 1002

PRODUCT RQ: Not applicable

SHIPPING LABEL(s): Nonflammable gas.

PLACARD (When required): Nonflammable gas.

SPECIAL SHIPPING INFORMATION: Cylinders should be transported in a 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

The following information concerns selected regulatory requirements potentially applicable to this product. Not all such requirements are identified. Users of this product are responsible for their own regulatory compliance on a federal, state [provincial], and local level.

U.S. FEDERAL REGULATIONS:

EPA - ENVIRONMENTAL PROTECTION AGENCY

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

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:

IMMEDIATE:	No	PRESSURE:	Yes
DELAYED:	No	REACTIVITY:	No
		FIRE:	No

SECTION 313: Requires submission of annual reports of release of toxic chemicals that appear in 40 CFR Part 372.

Air does not require reporting under Section 313

40 CFR PART 68: Risk Management for Chemical Accidental Release. Requires the development and implementation of risk management programs at facilities that manufacture, use, store, or otherwise handle regulated substances in quantities that exceed specified thresholds.

Air is not listed as a regulated substance.

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

OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

29 CFR 1910.119: Process Safety Management of Highly Hazardous Chemicals. Requires facilities to develop a process safety management program based on Threshold Quantities (TQ) of highly hazardous chemicals as listed in Appendix A.

STOODY INDUSTRIAL AND WELDING SUPPLY, INC.

Air is not listed in Appendix A as a highly hazardous chemical.

FDA - FOOD AND DRUG ADMINISTRATION:

Air USP is regulated by the FDA as a prescription drug.

[CANADIAN REGULATIONS:]

[Controlled Product Hazard Class A. This MSDS has been prepared in compliance with Controlled Product Regulations.]

16. OTHER INFORMATION

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.

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)).

MIXTURES: When two or more gases or liquefied gases are mixed, their hazardous properties may combine to create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an Industrial Hygienist or other trained person when you make your safety evaluation of the end product. Remember, gases and liquids have properties which can cause serious injury or death.

OTHER INFORMATION:

Atmospheric air that is compressed is composed of the following gases:

Nitrogen:	78%
Oxygen	21%
Argon	0.9%

Compressed air is also synthetically produced by mixing 79% nitrogen and 21% oxygen.

NFPA RATINGS:

HEALTH:	= 0
FLAMMABILITY:	= 0
REACTIVITY:	= 0
SPECIAL:	= None

HMIS RATINGS:

HEALTH:	= 0
FLAMMABILITY:	= 0
REACTIVITY:	= 0

STANDARD VALVE CONNECTIONS FOR U.S. AND CANADA:

THREADED:	0-3000 psig	CGA 346 or POST, [CGA 590 (alternate for industrial air)]
	3001-5500 psig	CGA 347
	5501 - 7500 psig	CGA 702
PIN-INDEXED YOKE:	0-3000 psig	CGA 950 (Medical Use)
ULTRA HIGH INTEGRITY:	Not applicable	

Use the proper CGA connections, DO NOT USE ADAPTERS

Further information about air can be found in the following pamphlets published by: Compressed Gas Association Inc. (CGA), 1725 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4102. Telephone: (703)412-0900.

G-7	<i>Compressed Air for Human Respiration</i>
G-7.1	<i>American National Standard Commodity Specification for Air</i>
P-1	<i>Safe Handling of Compressed Gases in Containers</i>
AV-1	<i>"Safe Handling and Storage of Compressed Gases"</i>

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