MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards and EC Standards

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: **ARGON, HELIUM, KRYPTON, NEON and/or XENON**
PRODUCT USE: Various
CHEMICAL NAME: Mixture of Argon, Helium, Krypton, Neon and/or Xenon
FORMULA: Argon = Ar; Helium = He; Krypton = Kr; Neon = Ne; Xenon = Xe
SYNONYMS: Not Applicable
MANUFACTURER: **SPECTRA GASES, INC.**
ADDRESS: 3434 Route 22 West
Branchburg, NJ 08876, U.S.A.
PHONE: 908/252-9300
FAX: 908/252-0811
WEB SITE: www.spectra-gases.com
SPECTRA GASES EMERGENCY CONTACT: 800-932-0624 8:30am - 7:00pm (EST)
24 HOUR EMERGENCY CONTACT, CHEMTREC: 800-424-9300, 703-527-3887

SECTION 2. COMPOSITION and INFORMATION ON INGREDIENTS

COMPOSITION: 1-99% Argon, Helium, Krypton, Neon and/or Xenon

CAS NUMBER: Argon 7440-37-1; Helium 7440-59-7; Krypton 7439-90-9; Neon 7440-01-9; Xenon 7440-63-3
EINECS NUMBER: Argon 231-098-5; Helium 231-168-5; Krypton 231-098-5; Neon 231-110-9; Xenon 231-172-7
EXPOSURE LIMITS: (10,000 ppm = 1%)

OSHA PELs:	**ACGIH TLVs:**	**NIOSH RELs:**

Argon:
There are no exposure limits for Argon, Argon is a simple asphyxiant.
Helium:
There are no exposure limits for Helium, Helium is a simple asphyxiant.
Krypton:
There are no exposure limits for Krypton, Krypton is a simple asphyxiant.
Neon:
There are no exposure limits for Neon, Neon is a simple asphyxiant.
Xenon:
There are no exposure limits for Xenon, Xenon is a simple asphyxiant.

SECTION 3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This gas is a colorless, odorless, non-flammable gas mixture, shipped under pressure. The main health hazard associated with releases of this gas is asphyxiation, by displacement of oxygen.

ROUTES OF ENTRY, SYMPTOMS OF ACUTE EXPOSURE: WARNING - If rescue personnel need to enter an area in which a release of this gas mixture has occurred, they should be equipped with Self-Contained Breathing Apparatus (SCBA). High concentration of this gas mixture will create an oxygen-deficient atmosphere, creating the risk of asphyxiation. Acute overexposure to this gas may cause the following health effects:

EYE CONTACT: Release of a high-pressure gas may result in airborne objects.

INGESTION: Ingestion of this gas mixture is not a likely route of industrial exposure.

INHALATION: High concentrations of this gas can cause an oxygen-deficient environment. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. The skin of a victim may have a blue color. Under some circumstances of over-exposure, death may occur, due to the displacement of oxygen.

SECTION 3. HAZARD IDENTIFICATION (Continued)

INHALATION (continued): The following effects associated with various levels of oxygen are as follows:

CONCENTRATION of OXYGEN	EXPOSURE SYMPTOM
20.9% Oxygen:	Normal oxygen concentration in air.
15-19% Oxygen:	Decreased ability to perform tasks. May impair coordination and may induce early symptoms in persons with heart, lung, or circulatory problems.
12-15% Oxygen:	Breathing increases, especially in exertion. Pulse up. Impaired coordination, perception, and judgment.
10-12% Oxygen:	Breathing further increases in rate and depth, poor coordination and judgment, lips slightly blue.
8-10% Oxygen:	Mental failure, fainting, unconsciousness, ashen face, blueness of lips, nausea (upset stomach), and vomiting.
6-8% Oxygen:	8 minutes, may be fatal in 50-100% of cases; 6 minutes, may be fatal in 25 to 50% of cases; 4-5 minutes, recovery with treatment.
4-6% Oxygen:	Coma in 40 seconds, followed by convulsion, breathing failure, death.

WARNING: Exposure to atmospheres containing 8-10% or less oxygen will bring about unconsciousness without warning and so quickly that individuals cannot help or protect themselves. Lack of sufficient oxygen may cause serious injury or death.

SKIN CONTACT: Not applicable.

OTHER HEALTH EFFECTS: Contact with rapidly expanding gases (which are released from under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain caused by frostbite can quickly subside, masking the injury. In addition, the sudden release of a pressurized gas (such as may occur in the event of a valve failure), presents a severe hazard of mechanical injury.

HMIS RATINGS: HEALTH: = 0; FLAMMABILITY: = 0; REACTIVITY: = 0;
PPE: Level B (see Section 8, Exposure Controls/Personal protective Equipment)

ROUTES OF ENTRY, SYMPTOMS OF CHRONIC EXPOSURE:

ROUTE OF ENTRY: Not Applicable
TARGET ORGANS: None.
SYMPTOMS: None.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None are anticipated.

CARCINOGENICITY: The components of this gas mixture are not found on the FEDERAL OSHA Z LIST, NTP, CAL/OSHA, or IARC Carcinogenicity lists and therefore is neither considered to be nor suspected to be a cancer-causing agent by these agencies.

SECTION 4. FIRST AID MEASURES

EYE CONTACT: If mechanical injury occurs, cover eye with bandage and seek appropriate medical attention.

INGESTION: Ingestion is an unlikely route of exposure for this gas.

INHALATION: Remove victim(s) to fresh air, as quickly as possible. Trained personnel should administer supplemental oxygen and/or cardio-pulmonary resuscitation, if necessary.

SKIN CONTACT: In case of frostbite, place the frostbitten part in warm water. DO NOT USE HOT WATER. If warm water is not available, or is impractical to use, wrap the affected parts gently in blankets. Alternatively, if the fingers or hands are frostbitten, place the affected area in the armpit. Encourage victim to gently exercise the affected part while being warmed. Seek immediate medical attention.

NOTES TO PHYSICIANS: Administer oxygen, if necessary, and treat symptoms.

SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT: Not Applicable
AUTOIGNITION: Not Applicable
FLAMMABLE RANGE: Not Applicable
NFPA RATINGS:

HEALTH: = 0 FLAMMABILITY: = 0
REACTIVITY: = 0 SPECIAL: Simple Asphyxiant

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: This is a non-flammable, gas mixture; use fire-extinguishing media appropriate for the surrounding materials.

SPECIAL FIRE-FIGHTING PROCEDURES: Non-flammable, inert gas mixture. Use extinguishing media appropriate for surrounding fire.

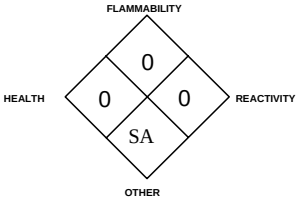
UNUSUAL FIRE AND EXPLOSION HAZARDS: This gas mixture does not burn; however, containers, when involved in fire, may rupture or burst in the heat of the fire. Most cylinders have a pressure release device, which will vent contents if the cylinder is exposed to high temperatures.

EXPLOSION SENSITIVITY TO MECHANICAL IMPACT: Not sensitive.

EXPLOSION SENSITIVITY TO STATIC DISCHARGE: Not sensitive.

HAZARDOUS COMBUSTION PRODUCTS: None known.

NFPA RATING



See Section 16 for Definition of Ratings

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In the event of a leak of this gas mixture, operator should close the gas source if possible to do so safely. Evacuate area in the event of a significant release. Only trained personnel, wearing Self-Contained Breathing Apparatus (SCBA) should re-enter a contaminated area if oxygen levels are below 19.5% or unknown. Persons responding to a release of a pressurized gas should be aware of the severe hazard of mechanical injury in the event of valve failure or other event causing a rapid release of cylinder contents.

If leak is in user's gas handling equipment or system, close cylinder valve, and safely vent high pressure before attempting repairs. If leak is from the cylinder, cylinder valve or the valve pressure relief device (PRD), contact your supplier.

The level of oxygen should above 19.5% before personnel can be allowed in the area without SCBA.

Detection systems should be available to monitor for level of oxygen.

SECTION 7. HANDLING AND STORAGE

STORAGE: Cylinders should be stored upright (with valve protection caps or plugs in place) and firmly secured to prevent falling or being knocked over. Cylinders should be stored in dry, well-ventilated areas. Protect from salt or other corrosive materials. Storage should be away from heavily traveled areas, walkways, elevators, platform edges or other objects or situations that could damage the cylinder wall. Do not store in a manner that will block emergency exits, fire extinguishers or other safety equipment. Do not allow storage temperature to exceed 125°F (52°C). Use a first-in, first-out inventory system to prevent full containers from being stored for long periods of time. Store empty cylinders away from full cylinders. Consideration should be taken to install leak detection and alarm equipment for storage areas. **NOTE:** Use only DOT or ASME code cylinders designed for compressed gas storage. Cylinders must not be recharged except by or with the consent of owner.

HANDLING: Releases of this gas mixture can create an oxygen-deficient atmosphere. Be aware of any signs of dizziness or fatigue; exposures to fatal concentrations of this gas mixture could occur without any significant warning symptoms, due to oxygen-deficiency. Wearing contact lenses is not recommended when handling this gas.

Cylinder valves should be inspected regularly for physical damage or corrosion (apparent by discoloration or rust). Care should be taken to inspect the following valve locations for corrosion: neck (where valve inserts into cylinder); bonnet nut (where handle attaches to valve body). Close valve after each use and when empty. The failure of a valve can result in violent release of the pressurized gas, creating a severe mechanical injury hazard.

Do not drag, roll, slide or drop cylinder. Use a suitable hand truck designed for cylinder movement. Never attempt to lift a cylinder by its cap. Secure cylinders at all times while in use. Use a pressure regulator to safely discharge product from cylinder. Use a check valve to prevent reverse flow into cylinder. Once cylinder has been connected to properly purged process, open cylinder valve slowly and carefully. If user experiences any difficulty operating cylinder valve, discontinue use and contact supplier. Never insert an object (e.g., wrench, screwdriver, etc.) into valve cap openings; doing so may damage valve, causing a leak to occur. Use an adjustable strap-wrench to remove over-tight or rusted caps. Do not heat cylinders by any means to increase the discharge rate of product from the cylinder. Never apply flame or localized heat directly to any part of the cylinder. Cylinders should not be artificially cooled as certain types of steel undergo property changes when cryogenically cooled, thus making the cylinder unstable.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Relieve pressure before attempting repairs.

SECTION 7. HANDLING AND STORAGE (Continued)

SPECIAL PRECAUTIONS: Be aware of any signs of dizziness or fatigue; exposures to fatal concentrations of this gas could occur without any significant warning symptoms. All work operations should be monitored in such a way that emergency personnel can be immediately contacted in the event of a release. Always store and handle compressed gas cylinders in accordance with Compressed Gas Association, Inc. (telephone 703-412-0900) pamphlet CGA P-1, *Safe Handling of Compressed Gases in Containers.* Local regulations may require specific equipment for storage and use.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Forced ventilation systems for the general work area should be provided. If appropriate, install automatic monitoring equipment to detect the level of oxygen.

RESPIRATORY PROTECTION: Maintain oxygen levels above 19.5% in the workplace. Use supplied air respiratory protection if oxygen level is below 19.5%, or during emergency response to a release of this product. If respiratory protection is required, follow the requirements of the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), or equivalent U.S. State standards, standards of Canada, the European Standard EN166, and EC member states.

EYE PROTECTION: Use approved safety goggles or safety glasses, as described in OSHA 29 CFR 1910.133 or by the European Standard EN166.

SKIN PROTECTION: Work (such as leather) gloves are recommended when handling cylinders of this gas. Wear gloves appropriate to the specific operation for which this gas mixture is used.

OTHER PROTECTIVE EQUIPMENT: Use body protection appropriate for task. Safety shoes are recommended when handling cylinders.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

The following information is for Argon, a main component of this mixture:

MOLECULAR WEIGHT: 39.95
GAS DENSITY @ 21.1°C (70°F): 0.103 lb./ft^3 (1.650 kg/m^3)
BOILING POINT @ 1 atm: -185.9°C (-302.6°F)
FREEZING/MELTING POINT @ 1 atm: -189.2°C (-308.6°F)
SPECIFIC GRAVITY (air = 1) @ 21.1°C (70°F): 1.38
SOLUBILITY IN WATER vol/vol at 0°C (32°F) and 1 atm: 0.056
SPECIFIC VOLUME @ 21.1°C (70°F): 9.71 lb/ft^3 (0.606 m^3/kg)
COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.
CRITICAL PRESSURE: 711.5 psia (4905 kPa abs)

The following information is for Helium, a main component of this mixture:

MOLECULAR WEIGHT: 4.00
GAS DENSITY @ 21.1°C (70°F): 0.0103 lb./ft^3 (0.165 kg/m^3)
BOILING POINT @ 1 atm: -268.9°C (-452.1°F)
FREEZING/MELTING POINT @ 1 atm: None.
SPECIFIC GRAVITY (air = 1) @ 21.1°C (70°F): 1.38
SOLUBILITY IN WATER vol/vol at 0°C (32°F) and 1 atm: 0.094
SPECIFIC VOLUME @ 21.1°C (70°F): 97.09 lb/ft^3 (6.061 m^3/kg)
COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.
CRITICAL PRESSURE: 33.0 psia (227 kPa abs)

The following information is for Krypton, a main component of this mixture:

MOLECULAR WEIGHT: 83.80
GAS DENSITY @ 21.1°C (70°F): 0.2172 lbs ft^3 (3.479 kg/m^3)
BOILING POINT @ 1 atm: -153.4°C (-244.0°F)
FREEZING/MELTING POINT @ 1 atm: -157°C (-251°F)
SPECIFIC GRAVITY (air = 1) @ 21.1°C (70°F): 2.899
SOLUBILITY IN WATER vol/vol at 20°C (68°F) and 1 atm: 0.0594
SPECIFIC VOLUME @ 21.1°C (70°F): 4.604 lb/ft^3 (0.287 m^3/kg)
COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.
CRITICAL PRESSURE: 798.0 psia (5502 kPa abs)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES (Continued)

The following information is for Neon, a main component of this mixture:

MOLECULAR WEIGHT: 20.183
GAS DENSITY @ 21.1°C (70°F): 0.05215 lb./ft^3 (1.83536 kg/m^3)
BOILING POINT @ 1 atm: -246.0°C (-410.9°F)
FREEZING/MELTING POINT @ 1 atm: -248.7°C (-415.6°F)
SPECIFIC GRAVITY (air = 1) @ 21.1°C (70°F): 0.696
SOLUBILITY IN WATER vol/vol at 0°C (32°F) and 1 atm: 0.0105
SPECIFIC VOLUME @ 21.1°C (70°F): 19.18 lb/ft^3 (1.197 m^3/kg)
COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.
CRITICAL PRESSURE: 384.9 psia (2654 kPa abs)

The following information is for Xenon, a main component of this mixture:

MOLECULAR WEIGHT: 131.3
GAS DENSITY @ 21.1°C (70°F): 0.3416 lbs ft^3 (5.472 kg/m^3)
BOILING POINT @ 1 atm: -108.2°C (-162.6°F)
FREEZING/MELTING POINT @ 1 atm: -168°F (-111°C)
SPECIFIC GRAVITY (air = 1) @ 21.1°C (70°F): 4.560
SOLUBILITY IN WATER vol/vol at 20°C (68°F) and 1 atm: 0.108
SPECIFIC VOLUME @ 21.1°C (70°F): 2.927 lb/ft^3 (0.183 m^3/kg)
COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.
CRITICAL PRESSURE: 847.0 psia (5840 kPa abs)

The following information is for this gas mixture.

ODOR THRESHOLD: This gas mixture is odorless.
APPEARANCE, ODOR AND STATE: Colorless, odorless gas.
WARNING PROPERTIES FOR THIS GAS: There are no warning properties in the event of a release. In terms of leak detection, fittings and joints can be painted with a soap solution to detect leaks, which will be indicated by a bubble formation.

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.
CONDITIONS TO AVOID: Cylinders should not be exposed to temperatures in excess of 125°F (52°C).
MATERIALS WITH WHICH GAS MIXTURE IS INCOMPATIBLE: None. The components of this gas mixture are inert gases.
REACTIVITY:

A) HAZARDOUS DECOMPOSITION PRODUCTS: None.
B) HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: There are no toxicology data for the components of this gas mixture. All components are simple asphyxiants which act to displace oxygen in the environment.

CARCINOGENICITY: All components of this gas mixture have not been found to be carcinogenic.

IRRITANCY OF PRODUCT: Not applicable.

SENSITIZATION OF PRODUCT: No components of this gas mixture are not sensitizers.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this gas mixture and its components on the human reproductive system.

Mutagenicity: This gas mixture is not expected to cause mutagenic effects in humans.
Embryotoxicity: This gas mixture is not expected to cause embryotoxic effects in humans.
Teratogenicity: This gas mixture is not expected to cause teratogenic effects in humans.
Reproductive Toxicity: This gas mixture is not expected to cause adverse reproductive effects in humans.

A mutagen is a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical that causes damage to a developing embryo (i.e., within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance that interferes in any way with the reproductive process.

BIOLOGICAL EXPOSURE INDICES (BEIs): Currently, Biological Exposure Indices (BEIs) are not applicable for the components of this gas mixture.

SECTION 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: This gas mixture will be dissipated rapidly in well-ventilated areas.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: Any adverse effect on plants would be related to oxygen-deficient environments or frost from rapidly expanding gases, unless exposure occurs in a confined space.

EFFECT OF CHEMICAL ON AQUATIC LIFE: There is currently no evidence of adverse effects from exposure to the components of this gas mixture on aquatic life.

MOBILITY: The components of this gas mixture are inert and do not present a hazard of mobility.

PERSISTENCE AND BIODEGRADABILITY: Persistence: All components of this gas mixture are natural elements and present no hazard of persistence. Biodegradation: The components of this gas mixture are fully biodegradable.

POTENTIAL TO BIOACCUMULATE: No component of this gas mixture will not bioaccumulate.

OZONE-DEPLETION POTENTIAL: The components of this gas mixture are not a Class I or Class II ozone depleting chemicals (40 CFR Part 82).

SECTION 13. DISPOSAL CONSIDERATIONS

UNUSED PRODUCT / EMPTY CONTAINER: Do not dispose of residual product. Return used product in cylinders to: Spectra Gases, Inc., 80 Industrial Drive, Alpha, NJ 08865 or Spectra Gases, Inc., 1261 Activity Drive, Vista, CA 92083.

DISPOSAL INFORMATION: Residual product may be safely released in a well-ventilated area. This shall be done in accordance with U.S. Federal, State and local regulations, regulations of the provinces of Canada or EC member states.

SECTION 14. TRANSPORT INFORMATION

U.S. SHIPPING INFORMATION:

U.S. DOT PROPER SHIPPING NAME: Compressed gas, n.o.s.(*)

* Indicate technical name of contents per 49 CFR 172.203(k)(1)

HAZARD CLASS NUMBER and DESCRIPTION: 2.2 (Non-Flammable Gas)

UN IDENTIFICATION NUMBER: UN 1956

U.S. DOT SHIPPING LABEL(S) REQUIRED: Non-Flammable Gas

PLACARD (When required): Not Applicable

SPECIAL SHIPPING INFORMATION: Cylinders should be transported in a secure position in a well-ventilated truck (never transport in passenger compartment of a vehicle). Ensure cylinder valve is properly closed, valve outlet cap has been reinstalled, and valve protection cap is secured before shipping cylinder.

CAUTION: Compressed gas cylinders shall not be refilled except by qualified producers of compressed gases. Shipment of a compressed gas cylinder which has not been filled by the owner or with the owner's written consent is a violation of Federal law (49 CFR 173.301).

NAERG (NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK) #: 121

CANADIAN SHIPPING INFORMATION:

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This gas is considered as dangerous goods; use the above information for the preparation of Canadian Shipments.

INTERNATIONAL AIR TRANSPORT ASSOCIATION DANGEROUS GOODS REGULATIONS (IATA):

IATA DESIGNATION: This gas is considered as dangerous goods, per the International Air Transport Association.

PROPER SHIPPING NAME: Compressed gas, n.o.s. (*)

* Indicate technical name of contents per IATA DGR 8.1.3.1.

HAZARD CLASS NUMBER and DESCRIPTION: 2.2 (Non-Flammable Gas)

UN IDENTIFICATION NUMBER: UN 1956

HAZARD LABEL(S) REQUIRED: Not Applicable

ERG CODE: 2L

SECTION 14. TRANSPORT INFORMATION (Continued)

The following Packaging Information is applicable to this product:

PASSENGER AND CARGO AIRCRAFT				CARGO AIRCRAFT ONLY	
Limited Quantity					
Packing Instruction	Max. Qty per Pkg	Packing Instruction	Max. Qty per Pkg	Packing Instruction	Max. Qty per Pkg
//////	//////	200	75 kg	200	150 kg

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO):

IMO DESIGNATION: This gas is considered as dangerous goods, per the International Maritime Organization.

PROPER SHIPPING NAME: Compressed gas, n.o.s.(*)

* Indicate technical name of contents per IMO regulations.

HAZARD CLASS NUMBER and DESCRIPTION: 2.2 (Non-Flammable Gas)

UN IDENTIFICATION NUMBER: UN 1956

STOWAGE CATEGORY: Category A

HAZARD LABEL(S) REQUIRED: Not Applicable

MARINE POLLUTANT: The components of this gas mixture are not designated by the IMO to be Marine Pollutants.

EUROPEAN SHIPPING INFORMATION:

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This gas is considered by the Economic Commission for Europe to be dangerous goods. Additional information is as follows:

SUBSTANCE IDENTIFICATION NO.: 1956
NAME OF SUBSTANCE: Compressed gas, n.o.s.
HAZARD IDENTIFICATION NO.: 20
LABEL: 2
CLASS AND ITEM NUMBER: 2, 1°A

SECTION 15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

EPA - ENVIRONMENTAL PROTECTION AGENCY:

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (40 CFR Parts 117 and 302)

Reportable Quantity (RQ): Not Applicable

SARA TITLE III: Superfund Amendment and Reauthorization Act

SECTIONS 302/304: Emergency Planning and Notification (40 CFR Part 355)

Extremely Hazardous Substances: Not Applicable
Threshold Planning Quantity (TPQ): Not Applicable
Reportable Quantity (RQ): Not Applicable

SECTIONS 311/312: Hazardous Chemical Reporting (40 CFR Part 370)

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

SECTION 313: Toxic Chemical Release Reporting (40 CFR 372)

Releases of this gas mixture do not require reporting under Section 313.

CLEAN AIR ACT:

SECTION 112 (r): Risk Management Programs for Chemical Accidental Release (40 CFR Part 68)

Threshold Planning Quantity (TPQ): Not Applicable

TSCA: Toxic Substances Control Act

The components of this mixture are listed on the TSCA Inventory.

OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

29 CFR Part 1910.119: Process Safety Management of Highly Hazardous Chemicals.

Threshold Planning Quantity (TPQ): Not Applicable

SECTION 15. REGULATORY INFORMATION (Continued)

U.S. STATE REGULATORY INFORMATION:

CALIFORNIA PROPOSITION 65: No component of this gas mixture is a listed substance which the State of California requires warning under this statute.

The components of this gas mixture are covered under the following specific State regulations (more specific regulations exist in some States):

Alaska - Designated Toxic and Hazardous Substances: Argon; Helium, Neon.

California - Permissible Exposure Limits for Chemical Contaminants: Argon; Helium, Neon.

Florida - Substance List: Argon; Helium, Neon.

Illinois - Toxic Substance List: Argon; Helium, Hydrogen, Neon.

Kansas - Section 302/313 List: None.

Massachusetts - Substance List: Argon; Helium, Neon.

Michigan - Critical Materials Register: None.

Minnesota - List of Hazardous Substances: Argon; **Helium**, Neon**.**

Missouri - Employer Information/Toxic Substance List: Argon; **Helium**, Neon**.**

New Jersey - Right to Know Hazardous Substance List: Argon; Helium, Krypton, Neon, Xenon.

North Dakota - List of Hazardous Chemicals, Reportable Quantities: None.

Pennsylvania - Hazardous Substance List: Argon; Helium, Neon.

Rhode Island - Hazardous Substance List: Argon; Helium, Neon.

Texas - Hazardous Substance List: None.

West Virginia - Hazardous Substance List: None.

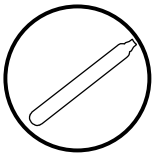
Wisconsin - Toxic and Hazardous Substances: None.

CANADIAN FEDERAL REGULATIONS:

CANADIAN DSL INVENTORY STATUS: All components of this gas mixture are listed on the Canadian DSL Inventory.

OTHER CANADIAN REGULATIONS: This gas mixture is categorized as a Controlled Product, Hazard Class A, as per the Controlled Product Regulations. The components of this gas mixture are not on the CEPA Priorities Substances Lists.

CANADIAN WHMIS SYMBOLS: **Class A:** Compressed Gas



EUROPEAN ECONOMIC COMMUNITY REGULATIONS:

EC LABELING AND CLASSIFICATION: This gas mixture does not meet the definition of any hazard class as defined by the European Community Council Directive 67/548/EEC.

EC CLASSIFICATION: Not applicable.

EC RISK PHRASES: Not applicable.

EC SAFETY PHRASES: Not applicable.

EUROPEAN COMMUNITY ANNEX II HAZARD SYMBOL: Not applicable.

EUROPEAN COMMUNITY INFORMATION FOR COMPONENTS:

ARGON:

EC EINECS/ELINCS NUMBER: 231-147-0

EC CLASSIFICATION: An official classification for this substance has not been published in Commission Directives 93/72/EEC, 94/69 EC, or and 96/54/EC.

HELIUM:

EC EINECS/ELINCS NUMBER: 231-168-5

EC CLASSIFICATION: An official classification for this substance has not been published in Commission Directives 93/72/EEC, 94/69 EC, or and 96/54/EC.

KRYPTON:

EC EINECS/ELINCS NUMBER: 231-172-7

EC CLASSIFICATION: An official classification for this substance has not been published in Commission Directives 93/72/EEC, 94/69 EC, or and 96/54/EC.

NEON:

EC EINECS/ELINCS NUMBER: 231-110-9

EC CLASSIFICATION: An official classification for this substance has not been published in Commission Directives 93/72/EEC, 94/69 EC, or and 96/54/EC.

SECTION 15. REGULATORY INFORMATION (Continued)

XENON:

EC EINECS/ELINCS NUMBER: 231-172-7

EC CLASSIFICATION: An official classification for this substance has not been published in Commission Directives 93/72/EEC, 94/69 EC, or and 96/54/EC.

SECTION 16. OTHER INFORMATION

Information contained in this Material Safety Data Sheet is provided to our customers so they may comply with 29 CFR 1910.1200, Hazard Communication Standard, the Canadian WHMIS Standard, and the requirements of the European Community Directives. The intent of this Material Safety Data Sheet is to provide end users of this product with the health and physical hazards associated with possible exposure to this product. All statements, technical data and recommendations are based on readily available texts and data that Spectra Gases, Inc., believes to be reliable and accurate. Spectra Gases, Inc., makes no warranties, guarantees or representations of any kind with respect to this product or this data. It is the responsibility of the user to obtain and use the most recent version of this MSDS.

Further information about compressed gases 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.

P-1 *"Safe Handling of Compressed Gases in Containers"*
AV-1 *"Safe Handling and Storage of Compressed Gases"*
"Handbook of Compressed Gases"

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc.
PO Box 3519, La Mesa, CA 91944-3519
619/670-0609

1/8/02 Revision: Addition of Simple Asphyxiant "SA" to NFPA Ratings. Addition of IATA ERG Code.
3/19/07 General update; Sec. 14 update UN#