



MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Union REACH Regulations

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NON-FLAMMABLE GAS MIXTURE Containing one or more of the following components in a Nitrogen Balance: Ammonia, .0001 – 0.05%; Oxygen, 0 – 23.5%

SYNONYMS: None

CHEMICAL FAMILY NAME: Not Applicable

FORMULA: Not Applicable

PRODUCT USE: Calibration of Monitoring and Research Equipment

DOCUMENT NUMBER: MSDS 1004 (99-0192)

U.N. NUMBER: UN1956

U.N. DANGEROUS GOODS CLASS: Compressed Gas, N.O.S.

SUPPLIER/MANUFACTURER'S NAME: **PortaGAS, Inc.**

ADDRESS: 1202 E. Sam Houston Pkwy S., Pasadena, TX 77503

EMERGENCY PHONE: **TOLL-FREE in USA/Canada:** (800)255-3924
International calls: +1 813 248 0585
Australian Poison Control: 13 11 26
Australian Fire Brigade: 000

BUSINESS PHONE: (713) 928-6477 General MSDS Info

DATE OF PREPARATION: October, 2012

DATE OF LAST REVISION: October, 2012

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This gas mixture is a colorless gas which is odorless or has a mild, ammonia odor. Ammonia, a component of this gas mixture can be severely irritating to over-exposed individuals. Symptoms of such over-exposure can include choking, coughing, watery eyes, labored breathing, and other adverse health effects. Releases of this gas mixture may also produce oxygen-deficient atmospheres (especially in confined spaces or other poorly-ventilated environments); individuals in such atmospheres may be asphyxiated.

US DOT SYMBOLS



CANADA (WHMIS) SYMBOLS



EUROPEAN and (GHS) HAZARD SYMBOLS



Signal Word: **Danger**

EU LABELING AND CLASSIFICATION:

Classification of the substance or mixture according to Regulation (EC) No1272/2008

Aspiration Hazard Category 1
Acute Inhalation Toxicity Category 3
Skin Corrosion/Irritation Category 1B
Acute Aquatic Toxicity Category 1
Oxidizing gas Category 1
Pressurized Gas

According to European Directive 67/548/EEC as amended.

Harmful by inhalation, pressurized gas

Hazard Statement(s):

H304: May be fatal if swallowed and enters airways.
H270: May intensify fire.
H280: Contains gas under pressure, may explode if heated.
H319: Causes serious eye irritation.
H331: Toxic if inhaled.
H400: Hazardous to the aquatic environment.
H335: May cause respiratory irritation.

Precautionary Statement(s):

P261: Avoid breathing gas.
P271: Use only in well ventilated area.
P281: Use personal protective equipment as required.
P314: Get medical advice/attention if you feel unwell.
P403: Store in a well ventilated place.

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Hazard Symbol(s):

[Xn] Harmful [O] Oxidizer

Risk Phrases: Simple Asphyxiant

R8: Contact with combustible material may cause fire.

R23: Toxic by inhalation.

R36/38: Irritating to eyes and skin.

Safety Phrases:

S9: Keep container in a well ventilated area.

S23: Do not breathe gas.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S53: Avoid exposure – obtain instructions before use.

HEALTH HAZARDS OR RISKS FROM EXPOSURE:

ACUTE: Due to the small size of the individual cylinder of this gas mixture, no unusual health effects from exposure to the product are anticipated under routine circumstances of use. This gas is irritating to eyes, skin, mucous membranes, and any other exposed tissue. If inhaled, irritation of the respiratory system may occur, with coughing, and breathing difficulty.

CHRONIC: Persistent irritation of the skin, as well as dermatitis, may result from repeated exposures to this gas. Repeated Ammonia overexposures by inhalation can result in emphysema. Chronic exposure to oxygen-deficient atmospheres (below 18% oxygen in air) may affect the heart and nervous system.

TARGET ORGANS: ACUTE: Respiratory system, skin, eyes.

CHRONIC: Respiratory system, skin, heart.

SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	EINECS #	ICSC #	% Vol	HAZARD CLASSIFICATION; RISK PHRASES
Ammonia	7664-41-7	231-635-3	0414	0.0001 – 0.05%	HAZARD CLASSIFICATION:[T] Toxic, [N] Dangerous to the environment RISK PHRASES: R23, R34, R50
Oxygen	7782-44-7	231-956-9	0138	0 -23.5%	HAZARD CLASSIFICATION:[O] Oxidizer RISK PHRASES: R8
Nitrogen	7727-37-9	231-783-9	1198	Balance	HAZARD CLASSIFICATION:[Xi] Irritant RISK PHRASES: R36/38

None of the trace impurities in this product contribute significantly to the hazards associated with the product.

All hazard information pertinent to the product has been provided in this Material Safety Data sheet., per the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and State equivalent standards

Note: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000.

SECTION 4 - FIRST-AID MEASURES

RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO THIS PRODUCT WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. No unusual health effects are anticipated after exposure to this product, due to the small cylinder size. If any adverse symptom develops after over-exposure to this product, remove victim(s) to fresh air, as quickly as possible. Only trained personnel should administer supplemental oxygen and/or cardio-pulmonary resuscitation, if necessary. Victim(s) who experience any adverse effect after over-exposure to this product must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to physician or other health professional with victim(s).

SKIN EXPOSURE: If irritation of the skin develops after exposure to this gas mixture, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention.

EYE EXPOSURE: If irritation of the eye develops after exposure to this gas mixture, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Seek medical assistance immediately, preferably an ophthalmologist.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Acute or chronic respiratory conditions may be aggravated by over-exposure to the components of this gas mixture.

RECOMMENDATIONS TO PHYSICIANS: Administer oxygen, if necessary; treat symptoms; eliminate exposure. Be observant for the signs of pulmonary edema.

SECTION 5 - FIRE-FIGHTING MEASURES

FLASH POINT:

Not Applicable

AUTOIGNITION TEMPERATURE:

Not applicable.

FLAMMABLE LIMITS (in air by volume, %):

Lower (LEL): Not applicable.

Upper (UEL): Not applicable.

FIRE EXTINGUISHING MATERIALS: Non-flammable, inert gas. Use extinguishing media appropriate for surrounding fire.

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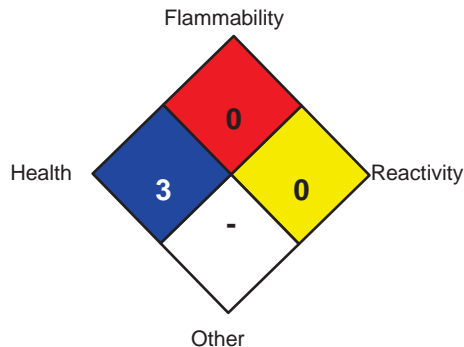
UNUSUAL FIRE AND EXPLOSION HAZARDS: Containers, when involved in fire, may rupture or burst in the heat of the fire.

Explosion Sensitivity to Mechanical Impact: Not Sensitive.

Explosion Sensitivity to Static Discharge: Not Sensitive.

SPECIAL FIRE-FIGHTING PROCEDURES: Structural fire-fighters must wear Self-Contained Breathing Apparatus and full protective equipment.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			3
FLAMMABILITY HAZARD (RED)			0
PHYSICAL HAZARD (YELLOW)			0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

SECTION 6 - ACCIDENTAL RELEASE MEASURES

LEAK RESPONSE: Due to the small size and content of the cylinder, an accidental release of this gas mixture presents significantly less risk Ammonia over-exposure, an oxygen deficient environment, and other safety hazards than a similar release from a larger cylinder. However, as with any chemical release, extreme caution must be used during emergency response procedures. In the event of a release in which the atmosphere is unknown, and in which other chemicals are potentially involved, evacuate immediate area. Such releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a leak, clear the affected area, protect people, and respond with trained personnel. Allow the gas mixture to dissipate. If necessary, monitor the surrounding area (and the original area of the release) for Ammonia and Oxygen. The concentration of Ammonia must be at acceptable levels (see Section 2, Composition on Information on Ingredients) and the atmosphere must have at least 19.5 percent oxygen before personnel can be allowed in the area without Self-Contained Breathing Apparatus. If leaking incidentally from the cylinder, contact your supplier.

SECTION 7 - HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: All work practices should minimize the release of gas mixture containing Ammonia. Eye wash stations/safety showers should be near areas where this gas mixture is used or stored. All work operations should be monitored in such a way that emergency personnel can be immediately contacted in the event of a release. Do not attempt to repair, adjust, or in any other way modify the cylinders containing this gas mixture. If there is a malfunction or another type of operational problem, contact nearest distributor immediately.

STORAGE AND HANDLING PRACTICES: Cylinders should be firmly secured to prevent falling or being knocked-over. Cylinders must be protected from the environment, and preferably kept at room temperature approximately 21°C, 70°F. Cylinders should be stored in dry, well-ventilated areas away from sources of heat, ignition and direct sunlight. Protect cylinders against physical damage. 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. These cylinders are not refillable.

WARNING! Do not refill DOT 39 cylinders. To do so may cause personal injury or property damage.

SPECIAL PRECAUTIONS FOR HANDLING GAS CYLINDERS:

WARNING! Compressed gases can present significantly safety hazards. During cylinder use, use equipment designed for these specific cylinders. Ensure all lines and equipment are rated for proper service pressure.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use product in areas where adequate ventilation is provided.

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SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

Component Name	CAS Number	ACGIH TLV	OSHA PEL	MAC	SWA
Ammonia	7664-41-7	25 ppm	Not Listed	50 ppm	25 ppm
Oxygen	7782-44-7	S/A	S/A	S/A	S/A
Nitrogen	7727-37-9	S/A	S/A	S/A	S/A

S/A = Simple Asphyxiant

There are no specific exposure limits for Nitrogen. Nitrogen is a simple asphyxiant (SA). Oxygen levels should be maintained above 19.5%.

VENTILATION AND ENGINEERING CONTROLS: No special ventilation systems or engineering controls are needed under normal circumstances of use. As with all chemicals, use this product in well-ventilated areas.

RESPIRATORY PROTECTION: No special respiratory protection is required under normal circumstances of use. Use supplied air respiratory protection if Oxygen levels are below 19.5%, or unknown, during emergency response to a release of this product. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations, or the Canadian CSA Standard Z94.4-93 and applicable standards of Canadian Provinces. Oxygen levels below 19.20% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998). The following NIOSH respirator recommendations are in place for Ammonia, a component of this gas mixture.

EYE PROTECTION: Safety glasses. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

HAND PROTECTION: No special protection is needed under normal circumstances of use. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: No special protection is needed under normal circumstances of use. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

GAS DENSITY @ 32°F (0°C) and 1 atm:	.072 lbs/ft ³
VAPOR DENSITY (AIR = 1):	.967
BOILING POINT:	-320.4°F (-195.8°C)
FREEZING/MELTING POINT (@ 10 psig):	-345.8°F (-210°C)
SPECIFIC GRAVITY (air = 1) @ 70°F (21.1°C):	0.906
pH:	Not applicable.
SOLUBILITY IN WATER:	0.023
MOLECULAR WEIGHT:	28.01
EVAPORATION RATE (nBuAc = 1):	Not Applicable
EXPANSION RATIO:	Not applicable.
ODOR THRESHOLD:	17 ppm
SPECIFIC VOLUME (ft³/lb):	13.8
VAPOR PRESSURE @ 70°F (21.1°C) (psig):	Not applicable.
COEFFICIENT WATER/OIL DISTRIBUTION:	Not applicable.
APPEARANCE, ODOR AND COLOR:	This product is a colorless, with a mild ammonia odor.
HOW TO DETECT THIS SUBSTANCE (warning properties):	There are no unusual warning properties associated with a release of this product.

SECTION 10 - STABILITY and REACTIVITY

STABILITY: Normally stable in gaseous state.

DECOMPOSITION PRODUCTS: The thermal decomposition products of Ammonia include ammonium hydroxide and a variety of nitrogen-containing compounds. The other components of this gas mixture do not decompose, per se, but can react with other compounds in the heat of a fire.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Titanium will burn in Nitrogen (the main component of this gas mixture). Lithium reacts slowly with Nitrogen at ambient temperatures. Ammonia, a component of this gas mixture, is not compatible with most metals, acids, oxidizers.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contact with incompatible materials. Cylinders exposed to high temperatures or direct flame can rupture or burst.

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SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICITY DATA:

AMMONIA: Mutation in Microorganisms-Escherichia coli 1500 ppm/3 hours, Cytogenetic Analysis (Inhalation-Rat) 19,800 mg/m³/16 weeks, TCLo (Inhalation-Human) 20 ppm: Irritant effects, LCLo (Inhalation-Human) 30,000 ppm/5 minutes, LCLo (Inhalation-Human) 5000 ppm/5 minutes, LDLo (Route Unknown-Man) 132 mg/kg, TDLo (Oral-Man) 15 µL/kg: Gastrointestinal: changes in structure or function of esophagus, LCLo (Inhalation-Rat) 2000 ppm/4 hours,

NITROGEN: There are no specific toxicology data for Nitrogen. Nitrogen is a simple asphyxiant, which acts to displace oxygen in the environment.

SUSPECTED CANCER AGENT: Components of this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC; therefore it is not considered to be, nor suspected to be a cancer-causing agent by these agencies.

IRRITANCY OF PRODUCT: Nitrogen is not irritating; however, contact with rapidly expanding gases can cause frostbite to exposed tissue.

SENSITIZATION OF PRODUCT: This product is not a sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this gas mixture and its components on the human reproductive system. Mutagenicity: No mutagenicity effects have been described for this gas mixture. Embryotoxicity: No embryotoxic effects have been described for this gas mixture. Teratogenicity: No teratogenicity effects have been described for this gas mixture. Reproductive Toxicity: No reproductive toxicity effects have been described for gas mixture.

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

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: The components of this gas mixture occur naturally in the atmosphere. The gas will be dissipated rapidly in well-ventilated areas. The following environmental data are applicable to the components of this gas mixture.

AMMONIA: Water Solubility: 47% in water at 0°C; 34% in water at 20°C; 28% in water at 31°C. **BIOCONCENTRATION:** Plants have a high affinity for gaseous ammonia when leaf stomata are open in daylight. **BIODEGRADATION:** Ammonia is rapidly converted to nitrate by nitrification.

OXYGEN: Water Solubility = 1 volume Oxygen/32 volumes water at 20°C. Log K_{ow} = -0.65

NITROGEN: Water Solubility = 2.4 volumes Nitrogen/100 volumes water at 0°C. 1.6 volumes Nitrogen/100 volumes water at 20°C.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: Due to the nature of this gas mixture, animals exposed to this gas mixture may experience irritation, chemical burns, or other adverse health effects. Oxygen displacement can also be a factor in the toxicity of this gas mixture. Plants contaminated with this gas mixture may be adversely affected or destroyed.

EFFECT OF CHEMICAL ON AQUATIC LIFE: Ammonia, a component of this gas mixture, is very soluble in water, and even low concentrations of Ammonia in water is detrimental to aquatic life. If a release of this gas mixture occurs near a river or other body of water, the release has the potential to kill fish and other aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan. Cylinders with undesired residual product may be safely vented outdoors with the proper regulator. For further information, refer to Section 16 (Other Information).

SECTION 14 - TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

THIS GAS IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Compressed Gases, N.O.S. (Oxygen, Nitrogen)

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

UN IDENTIFICATION NUMBER: UN 1956

PACKING GROUP: Not applicable.

DOT LABEL(S) REQUIRED: Class 2.2 (Non-Flammable Gas)

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2000): 126

ADR / RID (EU Only): Class 2, 1a

MARINE POLLUTANT: Nitrogen is not classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B).

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. If transporting these cylinders in vehicles, ensure these cylinders are not exposed to extremely high temperatures (as may occur in an enclosed vehicle on a hot day). Additionally, the vehicle should be well-ventilated during transportation.

Note: DOT 39 Cylinders ship in a strong outer carton (over pack). Pertinent shipping information goes on the outside of the over pack. DOT 39 Cylinders do not have transportation information on the cylinder itself.

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U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:

This product is classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

This product is classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

This product is classified as Dangerous Goods, by rules of IATA:

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:

This product is classified as Dangerous Goods by the International Maritime Organization.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):

This product is classified by the United Nations Economic Commission for Europe to be dangerous goods.

SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This gas is subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows: None

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: No Chronic Health: No Fire: No Reactivity: No

U.S. SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE THRESHOLD PLANNING QUANTITY: Ammonia = 500 lb (227 kg)

U.S. SARA SECTION 304 EXTREMELY HAZARDOUS SUBSTANCE REPORTABLE QUANTITY: Ammonia = 100 lb (45.4 kg)

U.S. CERCLA REPORTABLE QUANTITY (RQ): Ammonia = 100 lb (45.4 kg)

OTHER U.S. FEDERAL REGULATIONS: a. Ammonia is subject to the reporting requirements of CFR 29 1910.1000. Ammonia is listed on Table Z.1; b. Ammonia is subject to the reporting requirements of Section 112(r) of the Clean Air Act. The Threshold Quantity of Ammonia is 10,000 lbs.; c. The regulations of the Process Safety Management of Highly Hazardous Chemicals are not be applicable (29 CFR 1910.119). Under this regulation, only Anhydrous Ammonia is listed in Appendix A; this listing is not pertinent to this gas mixture; d. This gas mixture does not contain any Class I or Class II ozone depleting chemicals (40 CFR part 82); and e. Nitrogen and Oxygen are not listed as Regulated Substances, per 40 CFR, Part 68, of the Risk Management for Chemical Releases. Ammonia is listed under this regulation in Table 1 as Regulated Substances (Toxic Substances); however, this listing is pertinent to Ammonia in concentrations of 20% or more.

U.S. STATE REGULATORY INFORMATION: The components of this gas mixture are covered under the following specific State regulations:

Alaska - Designated Toxic and Hazardous Substances:	Ammonia.
California - Permissible Exposure Limits for Chemical Contaminants:	Nitrogen, Ammonia.
Florida - Substance List:	Oxygen, Ammonia.
Illinois - Toxic Substance List:	Ammonia.
Kansas - Section 302/313 List:	Ammonia.
Massachusetts - Substance List:	Oxygen, Ammonia.
Michigan - Critical Materials Register:	No.
Minnesota - List of Hazardous Substances:	Ammonia.
Missouri - Employer Information/Toxic Substance List:	Ammonia.
New Jersey - Right to Know Hazardous Substance List:	Oxygen, Nitrogen, Ammonia.
North Dakota - List of Hazardous Chemicals, Reportable Quantities:	Ammonia.
Pennsylvania - Hazardous Substance List:	Oxygen, Nitrogen, Ammonia.
Rhode Island - Hazardous Substance List:	Oxygen, Ammonia.
Texas - Hazardous Substance List:	No.
West Virginia - Hazardous Substance List:	Ammonia.
Wisconsin - Toxic and Hazardous Substances:	Ammonia.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does not contain any component above the 0.1% level which is listed as a California Proposition 65 chemical.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Nitrogen is categorized as a Controlled Product, Hazard Class A – Compressed Gas, as per the Controlled Product Regulations, Class D2B Toxic Material

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EUROPEAN ECONOMIC COMMUNITY INFORMATION:

EU LABELING AND CLASSIFICATION: Classification of the substance or mixture according to Regulation (EC) No1272/2008. See section 2 for details.

AUSTRALIAN INFORMATION FOR PRODUCT:

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS: All components of this product are listed on the AICS.

STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS: Not applicable.

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS:

The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac:	Listed
Australian Inventory of Chemical Substances (AICS):	Listed
Korean Existing Chemicals List (ECL):	Listed
Japanese Existing National Inventory of Chemical Substances (ENCS):	Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS):	Listed
Swiss Giftliste List of Toxic Substances:	Listed
U.S. TSCA:	Listed

SECTION 16 - OTHER INFORMATION

INFORMATION ABOUT DOT-39 NRC (Non-Refillable Cylinder) PRODUCTS: DOT 39 cylinders ship as hazardous materials when full. Once the cylinders are relieved of pressure (empty) they are not considered hazardous material or waste. Residual gas in this type of cylinder is not an issue because toxic gas mixtures are prohibited. Calibration gas mixture typically packaged in these cylinders are Nonflammable n.o.s., UN 1956. A small percentage of calibration gases packaged in DOT 39 cylinders are flammable or oxidizing gas mixtures. For disposal of used DOT-39 cylinders, it is acceptable to place them in a landfill if local laws permit. Their disposal is no different than that employed with other DOT containers such as spray paint cans, household aerosols, or disposable cylinders of propane (for camping, torch etc.). When feasible, we recommended recycling for scrap metal content.

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.

PREPARED BY: Paul Eigbrett Global Safety Management, 10006 Cross Creek Blvd. Suite 440, Tampa, FL 33647

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