



Safety Data Sheet

SPECIALTY -

OXY3%XE3%CO24%CO6%NIT19%BAL
HEL

Central McGowan

123 Roosevelt Road, St. Cloud, MN, 56301

800-569-1322

Section 1: Product and Company Identification

Central McGowan

123 Roosevelt Road, St. Cloud, MN, 56301

Product Code: **SPECIALTY - OXY3%XE3%CO24%CO6%NIT19%BAL HEL**

Synonyms: SPG HEL O2XECO2CONIT AQ

Recommended Use:

Usage Restrictions:

Section 2: Hazards Identification



Danger

Hazard Classification:	Specific target organ toxicity (Repeated Exposure) (Category 1) Gases Under Pressure
Hazard Statements:	Reproductive Toxicity (Category 1.A) Causes damage to organs through prolonged or repeated exposure Contains gas under pressure; may explode if heated May damage fertility or the unborn child
Precautionary Statements Prevention:	Do not breathe dust/fume/gas/mist/ vapors/spray.. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash thoroughly after handling.
Response:	Wear protective gloves, protective clothing, eye protection and face protection. Call a poison center or doctor if you feel unwell.
Storage:	If exposed or concerned: Get medical advice/attention. Protect from sunlight. Store in well-ventilated place.
Disposal:	Store locked up. Dispose of contents and/or container in accordance with applicable regulations.

Section 3: Composition/Information on Ingredients

	CAS #	Concentration
Oxygen	7782-44-7	3%
Xenon	7440-63-3	3%
Carbon Dioxide	124-38-9	24%
Carbon Monoxide	630-08-0	6%
Nitrogen	7727-37-9	19%
Helium	7440-59-7	Balance

	Chemical Substance	Chemical Family	Trade Names
Oxygen	OXYGEN, COMPRESSED GAS	Inorganic gases	OXYGEN; DIOXYGEN; MOLECULAR OXYGEN; OXYGEN MOLECULE; PURE OXYGEN; UN 1072; O2
Xenon	XENON	Inorganic gases	XENON ATOM; STCC 4904595; UN 2036; Xe;
Carbon Dioxide	CARBON DIOXIDE, GAS	Inorganic gases	CARBONIC ACID GAS; CARBONIC ANHYDRIDE; CARBON DIOXIDE; CARBON OXIDE; UN 1013; CO2
Carbon Monoxide	CARBON MONOXIDE	Inorganic gases	CARBON OXIDE; CARBON OXIDE (CO); UN 1016; CO
Nitrogen	NITROGEN, COMPRESSED GAS	Inorganic gases	DIATOMIC NITROGEN; DINITROGEN; NITROGEN; NITROGEN-14; NITROGEN GAS; UN 1066; N2
Helium	HELIUM	Inorganic gases	HELIUM GAS; HELIUM COMPRESSED; HELIUM-4; ATOMIC HELIUM; UN 1046; He

Section 4: First Aid Measures

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Oxygen	None expected	None expected	Not likely route of exposure	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.	None
Xenon	No information on significant adverse effects	No information on significant adverse effects	No information on significant adverse effects	Remove to fresh air, and give artificial respiration if not breathing. Consider oxygen in breathing is difficult. Contact a physician immediately.	None
Carbon Dioxide	If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.	Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	Do not induce vomiting.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.
Carbon Monoxide	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.	Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.
Nitrogen	Wash exposed skin with soap and water.	Flush eyes with plenty of water.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Helium	Wash exposed skin with soap and water.	Flush eyes with plenty of water.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

Section 5: Fire Fighting Measures

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Oxygen	Non-flammable. Use extinguishing agent appropriate for the material which is burning. Use water in large quantities for fires involving oxygen.	Oxides of burning material	<ul style="list-style-type: none"> ▪ Respiratory protection may be needed for frequent or heavy exposure. ▪ None
Xenon	Carbon dioxide, regular dry chemical Large fires: Use regular foam or flood with fine water spray.	Inorganic compounds	<ul style="list-style-type: none"> ▪ Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece. ▪ Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece.
Carbon Dioxide	Non-flammable	Non-flammable	<ul style="list-style-type: none"> ▪ Any appropriate escape-type, self-contained breathing apparatus. ▪ non-flammable
Carbon Monoxide	Carbon dioxide, regular dry chemical Large fires: Use regular foam or flood with fine water spray.	Carbon dioxide	<ul style="list-style-type: none"> ▪ Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. ▪ Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
Nitrogen	Non-flammable. Use suitable extinguishing media for surrounding fire. Cylinders may rupture or explode if exposed to heat.	Non-flammable	<ul style="list-style-type: none"> ▪ Respiratory protection may be needed for frequent or heavy exposure.
Helium	Non-flammable. use suitable extinguishing media for surrounding fire.	Non-flammable	<ul style="list-style-type: none"> ▪ Non-flammable ▪ non-flammable

Section 6: Accidental Release Measures

	Personal Precautions	Environmental Precautions	Methods for Containment
Oxygen	Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.	Avoid contact with combustible materials.	Stop leak if possible without personal risk.
Xenon	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Keep out of water supplies and sewers.	Stop leak if possible without personal risk.
Carbon Dioxide	Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. Do not touch spilled material.	Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.	Stop leak if possible without personal risk.
Carbon Monoxide	Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.	Avoid heat, flames, sparks and other sources of ignition. Keep out of water supplies and sewers.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.
Nitrogen	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	No significant effects from contamination expected.	Stop leak if possible without personal risk.

	Personal Precautions	Environmental Precautions	Methods for Containment
Helium	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Avoid soil, waterways, drains and sewers	Stop leak if possible without personal risk.

	Methods for Cleanup	Other Information
Oxygen	Stop leak and ventilate	None
Xenon	Absorb with sand or other non-combustible material. Collect with absorbent into suitable container.	None
Carbon Dioxide	Stop leak, evacuate, remove source of ignition.	None
Carbon Monoxide	Stop leak, evacuate area. Wear protective equipment.	Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).
Nitrogen	N/A	N/A
Helium	Stop leak, evacuate area. Contact emergency personnel.	None

Section 7: Handling and Storage

	Handling	Storage
Oxygen	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances.
Xenon	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances.
Carbon Dioxide	Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.	Store and handle in accordance with all current regulations and standards
Carbon Monoxide	Keep separated from incompatible substances.	Store and handle in accordance with all current regulations and standards. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.
Nitrogen	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances.
Helium	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances.

Section 8: Exposure Controls/Personal Protection

	Exposure Guidelines
Oxygen	OXYGEN, COMPRESSED GAS: No occupational exposure limits established.
Xenon	XENON: No occupational exposure limits established.
Carbon Dioxide	CARBON DIOXIDE, GAS: CARBON DIOXIDE: 5000 ppm (9000 mg/m ³) OSHA TWA 10000 ppm (18000 mg/m ³) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 30000 ppm (54000 mg/m ³) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) 5000 ppm ACGIH TWA 30000 ppm ACGIH STEL 5000 ppm (9000 mg/m ³) NIOSH recommended TWA 10 hour(s) 30000 ppm (54000 mg/m ³) NIOSH recommended STEL
Carbon Monoxide	CARBON MONOXIDE: 50 ppm (55 mg/m ³) OSHA TWA 35 ppm (40 mg/m ³) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 200 ppm (229 mg/m ³) OSHA ceiling (vacated by 58 FR 35338, June 30, 1993) 25 ppm ACGIH TWA 35 ppm (40 mg/m ³) NIOSH recommended TWA 10 hour(s) 200 ppm (229 mg/m ³) NIOSH recommended ceiling
Nitrogen	NITROGEN, COMPRESSED GAS: NITROGEN: ACGIH (simple asphyxiant)
Helium	HELIUM: ACGIH (simple asphyxiant)

Engineering Controls

Handle only in fully enclosed systems.

	Eye Protection	Skin Protection	Respiratory Protection
Oxygen	Eye protection not required, but recommended.	Protective clothing is not required. Protective gloves are not required.	Respiratory protection may be needed for frequent or heavy exposure.

	Eye Protection	Skin Protection	Respiratory Protection
Xenon	Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Protective clothing is not required. Protective gloves are not required, but recommended.	Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece.
Carbon Dioxide	For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing. Wear insulated gloves.	Any appropriate escape-type, self-contained breathing apparatus.
Carbon Monoxide	Eye protection not required, but recommended.	Protective clothing is not required. Wear appropriate chemical resistant gloves.	Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
Nitrogen	Eye protection not required, but recommended.	Protective clothing is not required. Protective gloves are not required.	Respiratory protection may be needed for frequent or heavy exposure.
Helium	Eye protection not required, but recommended.	Protective clothing is not required. Protective gloves are not required.	Non-flammable

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

	Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor
Oxygen	Gas	Clear	Colorless	N/A	Gas	Odorless
Xenon	Gas	Clear	Colorless	N/A	Gas	Odorless
Carbon Dioxide	Gas	Colorless	Colorless	N/A	Gas	Odorless
Carbon Monoxide	Gas	Colorless	Colorless	N/A	Gas	Odorless
Nitrogen	Gas	Clear	Colorless	N/A	Gas	Odorless
Helium	Gas	Colorless	Colorless	N/A	Gas	Odorless

	Taste	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits
Oxygen	Tasteless	Not flammable	Not available	Not available	Nonflammable	Nonflammable
Xenon	Tasteless	Not flammable	Not available	Not available	Nonflammable	Nonflammable
Carbon Dioxide	Acid taste	Not flammable	Not available	N/A	Nonflammable	Nonflammable
Carbon Monoxide	Tasteless	Flammable	Not available	1479.11 (log = 3.17) (estimated from water solubility)	1128-1202 F (609-650 C)	0.74
Nitrogen	Tasteless	Not flammable	Not available	Not available	Nonflammable	Nonflammable
Helium	Tasteless	Not flammable	Not available	Not available	Nonflammable	Nonflammable

	Lower Explosive Limits	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity
Oxygen	Nonflammable	-297 F (-183 C)	-360 F (-218 C)	760 mmHg @ -183 C	1.1 (Air=1)	Not applicable
Xenon	Nonflammable	-162 F (-108 C)	-170 F (-112 C)	760 mmHg @ -108 C	4.561 (Air=1)	Not applicable
Carbon Dioxide	Nonflammable	Not available	-71 F (-57 C) @ 4000 mmHg	43700 mmHg @ 21 C	1.5 (Air=1)	1.522 @ 21 C
Carbon Monoxide	12.0-12.5%	-312.7 F (-191.5 C)	-326 F (-199 C)	760 mmHg @ -191 C gas; cannot be liquefied at room temperature	0.968 (Air=1)	Not applicable

	Lower Explosive Limits	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity
Nitrogen	Nonflammable	-321 F (-196 C)	-346 F (-210 C)	760 mmHg @ -196 C	0.967 (Air=1)	Not applicable
Helium	Nonflammable	-452 F (-269 C)	-458 F (-272 C) @ 26 atm	1719 mmHg @ -268 C	0.138 (Air=1)	Not applicable

	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity	Molecular Weight
Oxygen	3.2% @ 25 C	Not applicable	Not available	Not applicable	0.02075 cP @ 25 C	31.9988
Xenon	0.00108	Not applicable	Not available	Not applicable	0.528 cP @ 17 C	131.3
Carbon Dioxide	Soluble	3.7 (saturated aqueous solution) @ 101.3 kPa (carbonic acid)	Not available	Not applicable	0.01657 cP @ 0 C	44.01
Carbon Monoxide	2.3% @ 20 C	Not applicable	Not available	Not applicable	0.01657 cP @ 0 C	28.01
Nitrogen	1.6% @ 20 C	Not applicable	Not available	Not applicable	0.01787 cP @ 27 C	28.0134
Helium	0.94% @ 0 C	Not applicable	Not available	Not applicable	0.02012 cP @ 26.8 C	4.0026

	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
Oxygen	O2	1.309 g/L @ 25 C	Not available	Not applicable	Not applicable	Soluble : Alcohol
Xenon	XE	5.8878 g/L	Not available	Not available	Not applicable	Not available
Carbon Dioxide	C-O2	0.114	Not available	Not applicable	Not applicable	Soluble : Alcohol, acetone, hydrocarbons, organic solvents
Carbon Monoxide	C-O	1.250 g/L @ 0 C	Not available	100%	Not applicable	Soluble : Alcohol, benzene, acetic acid, ethyl acetate, chloroform, cuprous chloride solutions
Nitrogen	N2	1.2506 g/L	Not available	100%	1	Soluble : Liquid ammonia
Helium	He	0.1785 g/L @ 0 C	Not available	100%	Not applicable	Insoluble : Not available

Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
Oxygen	Stable at normal temperatures and pressure.	Avoid contact with combustible materials. Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.	Combustible materials, halo carbons, metals, bases, reducing agents, amines, metal salts, oxidizing materials, alkaline earth and alkali metals
Xenon	Stable at normal temperatures and pressure.	Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.	Halogens
Carbon Dioxide	Stable at normal temperatures and pressure.	Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. Avoid contact with water or moisture.	Combustible materials, oxidizing materials, metal salts, reducing agents, metal carbide, metals, bases
Carbon Monoxide	Stable at normal temperatures and pressure.	Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Avoid inhalation of material or combustion by-products. Keep out of water supplies and sewers.	Oxidizing materials, halogens, metal oxides, metals, combustible materials, lithium

	Stability	Conditions to Avoid	Incompatible Materials
Nitrogen	Stable at normal temperatures and pressure.	Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.	Metals, oxidizing materials
Helium	Stable at normal temperatures and pressure.	Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. Keep liquid helium from contact with air.	No data available.

	Hazardous Decomposition Products	Possibility of Hazardous Reactions
Oxygen	Miscellaneous decomposition products	Will not polymerize.
Xenon	None known.	Will not polymerize.
Carbon Dioxide	Carbon monoxide	Will not polymerize.
Carbon Monoxide	Oxides of carbon	Will not polymerize.
Nitrogen	Oxides of nitrogen	Will not polymerize.
Helium	Miscellaneous decomposition products	Will not polymerize.

Section 11: Toxicology Information

Acute Effects

	Oral LD50	Dermal LD50	Inhalation
Oxygen	Not established	Not established	Irritation, changes in body temperature, nausea, difficulty breathing, irregular heartbeat, dizziness, disorientation, hallucinations, mood swings, pain in extremities, tremors, lung congestion, convulsions
Xenon	Not available	Not available	Nausea, vomiting, symptoms of drunkenness, suffocation, convulsions, coma
Carbon Dioxide	Not established	Not established	ringing in the ears, nausea, irregular heartbeat, headache, drowsiness, dizziness, tingling sensation, visual disturbances, suffocation, convulsions, coma
Carbon Monoxide	LC50 Inhalation Gas. Rat 1807 ppm 4 hours	Not available	Changes in body temperature, changes in blood pressure, nausea, vomiting, chest pain, difficulty breathing, irregular heartbeat, headache, drowsiness, dizziness, disorientation, hallucinations, pain in extremities, tremors, loss of coordination, hearing loss, visual disturbances, eye damage, suffocation, blood disorders, convulsions, coma
Nitrogen	Not available	Not available	Nausea, vomiting, difficulty breathing, headache, drowsiness, dizziness, tingling sensation, loss of coordination, convulsions, coma
Helium	Not available	Not available	Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, fatigue, dizziness, disorientation, emotional disturbances, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma

	Eye Irritation	Skin Irritation	Sensitization
Oxygen	No information on significant adverse effects	No information on significant adverse effects	No significant target effects reported.
Xenon	No information is available	No information is available	Difficulty breathing
Carbon Dioxide	Irritation, frostbite, blurred vision	Liquid: blisters, frostbite	Difficulty breathing

	Eye Irritation	Skin Irritation	Sensitization
Carbon Monoxide	No information on significant adverse effects	No information on significant adverse effects	Acute toxicity, Category 3, inhalation; H331: Toxic if inhaled. Reproductive toxicity, Category 1A; H360D: May damage the unborn child. Specific Target Organ Toxicity (repeated exposure), Category 1; H372: Causes damage to organs through prolonged or repeated exposure.
Nitrogen	Contact with rapidly expanding gas may cause burns or frostbite	No information on significant adverse effects	Difficulty breathing
Helium	Liquid: frostbite, blurred vision	Liquid: frostbite	Difficulty breathing

Chronic Effects

	Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Oxygen	Not known.	Available.	Available.	No data
Xenon	Not available	Not available	Not available	No data
Carbon Dioxide	Not available	Not established	Available.	No data
Carbon Monoxide	Not available	Available.	Available.	No data
Nitrogen	Not hazardous	Not available	Not available	No data
Helium	Not available	Not available	Not available	No data

Section 12: Ecological Information

Fate and Transport

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Oxygen	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Low bioaccumulation	Not available
Xenon	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available
Carbon Dioxide	Fish toxicity: 150000 ug/L 48 day(s) (Mortality) Brown trout (<i>Salmo trutta</i>) Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Relatively non-persistent in the environment. Moderately volatile from water.	Accumulates very little in the bodies of living organisms.	Leaches through the soil
Carbon Monoxide	Fish toxicity: 75000 ug/L 1 day(s) LC100 (Mortality) Orangespotted sunfish (<i>Lepomis humilis</i>) Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Relatively non-persistent in the environment. Highly volatile from water.	Not available	Not expected to leach through the soil or the sediment.
Nitrogen	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available
Helium	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available

Section 13: Disposal Considerations

Oxygen	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.
Xenon	Dispose in accordance with all applicable regulations.
Carbon Dioxide	Dispose in accordance with all applicable regulations.
Carbon Monoxide	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.
Nitrogen	Dispose in accordance with all applicable regulations.
Helium	Dispose in accordance with all applicable regulations.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

DOT Information For This Mixture

Shipping Name	Compressed gas, n.o.s. (Oxygen, Xenon, Carbon Dioxide, Carbon Monoxide, Nitrogen, Helium)
UN Number	UN1956
Hazard Class	2.2
Hazard Information	NonFlammable Gas

Individual Component Information

	Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Oxygen	Oxygen, compressed	UN1072	2.2	Not applicable	2.2; 5.1	75 kg or L	150 kg	N/A
Xenon	Xenon	UN2036	2.2	Not applicable	2.2	50 kg	500 kg	N/A
Carbon Dioxide	Carbon dioxide	UN1013	2.2	Not applicable	2.2	75 kg or L	150kg	None
Carbon Monoxide	Carbon monoxide, compressed	UN1016	2.3	Not applicable	2.3; 2.1	Forbidden	25 kg	Toxic-Inhalation Hazard Zone D
Nitrogen	Nitrogen, compressed	UN1066	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A
Helium	Helium, compressed	UN1046	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A

Canadian Transportation of Dangerous Goods

	Shipping Name	UN Number	Class	Packing Group / Risk Group
Oxygen	Oxygen, compressed	UN1072	2.2; 5.1	Not applicable
Xenon	Xenon, compressed	UN2036	2.2	Not applicable
Carbon Dioxide	Carbon dioxide	UN1013	2.2	Not applicable
Carbon Monoxide	Carbon monoxide, compressed	UN1016	2.3; 2.1	Not applicable
Nitrogen	Nitrogen, compressed	UN1066	2.2	Not applicable
Helium	Helium, compressed	UN1046	2.2	Not applicable

Section 15: Regulatory Information

U.S. Regulations

	CERCLA Sections	SARA 355.30	SARA 355.40
Oxygen	Not regulated.	Not regulated.	Not regulated.
Xenon	Not regulated.	Not regulated.	Not regulated.
Carbon Dioxide	Not regulated.	Not regulated.	Not regulated.

Carbon Monoxide	Not regulated.	Not regulated.	Not regulated.
Nitrogen	Not regulated.	Not regulated.	Not regulated.
Helium	Not regulated.	Not regulated.	Not regulated.

SARA 370.21

	Acute	Chronic	Fire	Reactive	Sudden Release
Oxygen	No	No	Yes	No	Yes
Xenon	Yes	No	No	No	Yes
Carbon Dioxide	Yes	No	No	No	Yes
Carbon Monoxide	Yes	No	Yes	No	Yes
Nitrogen	Yes	No	No	No	Yes
Helium	Yes	No	No	No	Yes

SARA 372.65

Oxygen	Not regulated.
Xenon	Not regulated.
Carbon Dioxide	Not regulated.
Carbon Monoxide	Not regulated.
Nitrogen	Not regulated.
Helium	Not regulated.

OSHA Process Safety

Oxygen	Not regulated.
Xenon	Not regulated.
Carbon Dioxide	Not regulated.
Carbon Monoxide	Not regulated.
Nitrogen	Not regulated.
Helium	Not regulated.

State Regulations

	CA Proposition 65
Oxygen	Not regulated.
Xenon	Not regulated.
Carbon Dioxide	Not regulated.
Carbon Monoxide	WARNING: This product can expose you to chemicals including Carbon Monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov .
Nitrogen	Not regulated.
Helium	Not regulated.

Canadian Regulations

	WHMIS Classification
Oxygen	A,C
Xenon	A
Carbon Dioxide	A
Carbon Monoxide	A, B1, D1A, D2A.
Nitrogen	A
Helium	A

National Inventory Status

	US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Oxygen	Listed on inventory.	Not listed.	Not determined.
Xenon	Listed on inventory.	Not listed.	Not determined.
Carbon Dioxide	Listed on inventory.	Not listed.	Listed on inventory.
Carbon Monoxide	Listed on inventory.	Not listed.	Listed on inventory.
Nitrogen	Listed on inventory.	Not listed.	Listed on inventory.
Helium	Listed on inventory.	Not listed.	Not determined.

Section 16: Other Information

	NFPA Rating
Oxygen	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=OX

Xenon	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA
Carbon Dioxide	HEALTH=3 FIRE=0 REACTIVITY=0 SPECIAL=SA
Carbon Monoxide	HEALTH=2 FIRE=4 REACTIVITY=0
Nitrogen	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA
Helium	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard