

Safety Data Sheet



Division of Fresno Oxygen

Barnes Welding Supply/Barnes Specialty Gases

Division of Fresno Oxygen

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Section 1: Product and Company Identification

Barnes Welding Supply / Barnes Specialty Gases - Division of Fresno Oxygen

2825 S. Elm Ave. #101
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FOR CHEMICAL EMERGENCIES DURING TRANSPORTATION ONLY CALL INFOTRAC 1-800-535-5053

Product Name: NO2-Balance Inert Gas Mix

Part Number: Certified Gas Mixture, EPA Protocol mixtures

Synonyms: Non-Flammable Gas Mixtures CS Mixes EPA Protocol Mixtures
Recommended Use: For general analytical/synthetic chemical gas uses.

Section 2: Hazards Identification



Warning

Hazard Classification:
Gases Under Pressure

Hazard Statements:
Contains gas under pressure; may explode if heated

Precautionary Statements
Storage:
Protect from sunlight.
Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

	CAS #	Concentration
Nitrogen Dioxide	10102-44-0	0.0001 – 0.9999%
AND ONE OR MORE OF THE FOLLOWING:		
Argon	7440-37-1	99.001 – 99.999%
Helium	7440-59-7	99.001 – 99.999%
Krypton	7439-90-9	99.001 – 99.999%
Neon	7440-01-9	99.001 – 99.999%
Nitrogen	7727-37-9	99.001 – 99.999%
Xenon	7440-63-3	99.001 – 99.999%

	Chemical Substance	Chemical Family	Trade Names
Nitrogen Dioxide	NITROGEN DIOXIDE	Inorganic gases	Dinitrogen tetroxide Dinitrogen tetroxide, liquefied Nitrogen dioxide, liquefied Nitrogen oxide Nitrogen peroxide Nitrogen peroxide, liquefied Nitrogen tetroxide
Argon	ARGON, COMPRESSED	Inorganic gases	ARGON; UN 1006; AR
Helium	HELIUM	Inorganic gases	HELIUM GAS; HELIUM COMPRESSED; HELIUM-4; ATOMIC HELIUM; UN 1046; He
Krypton	KRYPTON	Inorganic gases	UN 1056
Neon	NEON	Inorganic gases	NEON, COMPRESSED; UN 1065; Ne
Nitrogen	NITROGEN, COMPRESSED GAS	Inorganic gases	DIATOMIC NITROGEN; DINITROGEN; NITROGEN; NITROGEN-14; NITROGEN GAS; UN 1066; N2
Xenon	XENON	Inorganic gases	XENON ATOM; STCC 4904595; UN 2036; Xe;

Section 4: First Aid Measures

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Nitrogen Dioxide	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.	Not applicable route of exposure	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.	None
Argon	Not applicable route of exposure	Flush eyes with plenty of water.	Not applicable route of exposure	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.
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.
Krypton	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.	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.
Neon	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.	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.
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.
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 is not breathing. Consider oxygen in breathing is difficult. Contact a physician immediately.	None

Section 5: Fire Fighting Measures

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Nitrogen Dioxide	Non-flammable gas. Use suitable extinguishing media for surrounding fire.	Thermal decomposition to give nitric oxide and oxygen when heated above 160 deg C	- Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit. - Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit.
Argon	Non-flammable gas	Not applicable	- N/A - N/A
Helium	Non-flammable. Use suitable extinguishing media for surrounding fire.	Non-flammable	- Non-flammable - Non-flammable
Krypton	Carbon dioxide, regular dry chemical Large fires: Use regular foam or flood with fine water spray.	None known	- Any self-contained breathing apparatus with a full facepiece. - Any self-contained breathing apparatus with a full facepiece.
Neon	Non-flammable. Use extinguishing media suitable for surrounding fire.	Non-flammable	Respiratory protection may be needed for frequent or heavy exposure.
Nitrogen	Non-flammable. Use suitable extinguishing media for surrounding fire. Cylinders may rupture or explode if exposed to heat.	Non-flammable	Respiratory protection may be needed for frequent or heavy exposure.
Xenon	Carbon dioxide, regular dry chemical Large fires: Use regular foam or flood with fine water spray.	Inorganic compounds	- 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.

Section 6: Accidental Release Measures

	Personal Precautions	Environmental Precautions	Methods for Containment
Nitrogen Dioxide	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Avoid heat, flames, sparks and other sources of ignition. Keep out of water supplies and sewers.	Not available.
Argon	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	None known.	Stop leak if possible without personal risk.
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.
Krypton	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Keep out of waterways. Prevent environmental contamination.	Stop leak if possible without personal risk.
Neon	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Prevent contamination of environment	Stop leak if possible without personal risk.
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.
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.

	Methods for Cleanup	Other Information
Nitrogen Dioxide	Contact emergency personnel	None.
Argon	Leaks may be detected by a soapy-water solution.	
Helium	Stop leak, evacuate area. Contact emergency personnel.	None
Krypton	Contact emergency personnel.	None
Neon	Not available	Not available
Nitrogen	N/A	N/A
Xenon	Absorb with sand or other non-combustible material. Collect with absorbent into suitable container.	None

Section 7: Handling and Storage

	Handling	Storage
Nitrogen Dioxide	Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125F (52C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.	Do not get liquid in eyes, on skin, or clothing. Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Open valve slowly. Close cylinder valve after each use; keep closed even when empty. If valve is hard to open, discontinue use and contact your supplier.
Argon	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.	Avoid using in confined spaces.
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.
Krypton	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Use hand truck for cylinder movement.
Neon	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Protect cylinders from damage.
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.
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.

Section 8: Exposure Controls/Personal Protection

	Exposure Guidelines
Nitrogen Dioxide	TLV-TWA: 3 ppm Short-term Exposure Limits (TLV-STEL): 5ppm
Argon	ARGON, COMPRESSED: ARGON: ACGIH (simple asphyxiant)
Helium	HELIUM: ACGIH (simple asphyxiant)
Krypton	KRYPTON: No occupational exposure limits established.
Neon	NEON: No occupational exposure limits established.
Nitrogen	NITROGEN, COMPRESSED GAS: NITROGEN: ACGIH (simple asphyxiant)
Xenon	XENON: No occupational exposure limits established.

Engineering Controls

Handle only in fully enclosed systems.

	Eye Protection	Skin Protection	Respiratory Protection
Nitrogen Dioxide	Eye protection not required, but recommended.	Wear appropriate chemical resistant clothing.	Any self-contained breathing apparatus with a full facepiece. Use a chemical protective suit.
Argon	Eye protection not required, but recommended.	Protective clothing is not required.	N/A
Helium	Eye protection not required, but recommended.	Protective clothing is not required.	Non-flammable
Krypton	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.	Any self-contained breathing apparatus with a full facepiece.
Neon	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.	Respiratory protection may be needed for frequent or heavy exposure.
Nitrogen	Eye protection not required, but recommended.	Protective clothing is not required.	Respiratory protection may be needed for frequent or heavy exposure.
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.	Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece.

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	Taste
Nitrogen Dioxide	Gas	Clear	Yellow to dark brown	N/A	Gas	Pungent odor	N/A
Argon	Gas	Colorless	Colorless	N/A	Gas	Odorless	Tasteless
Helium	Gas	Colorless	Colorless	N/A	Gas	Odorless	Tasteless
Krypton	Gas	Colorless	Colorless	N/A	Gas	Odorless	Tasteless
Neon	Gas	Clear	Colorless	N/A	Gas	Odorless	Tasteless
Nitrogen	Gas	Clear	Colorless	N/A	Gas	Odorless	Tasteless
Xenon	Gas	Clear	Colorless	N/A	Gas	Odorless	Tasteless

	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
Nitrogen Dioxide	Not applicable	Not available	Not available	Nonflammable	Nonflammable	Nonflammable
Argon	Not flammable			Nonflammable	Nonflammable	Nonflammable
Helium	Not flammable	Not available	Not available	Nonflammable	Nonflammable	Nonflammable
Krypton	Not available	Not available	Not available	Not available	Not available	Not available
Neon	Not flammable	Not available	Not available	Nonflammable	Nonflammable	Nonflammable
Nitrogen	Not flammable	Not available	Not available	Nonflammable	Nonflammable	Nonflammable
Xenon	Not flammable	Not available	Not available	Nonflammable	Nonflammable	Nonflammable

	Boilin g Point	Freezin g Point	Vapor Pressur e	Vapor Density	Specifi c Gravity	Water Solubility	pH	Odor Threshold	Evaporatio n Rate	Viscosit y
Nitrogen Dioxide	70.1 F (-18 C)	12 F (-11 C)	760 mmHg @ 21.1 C	1.58 (air=1)	1.449	Reacts to form nitric acid and nitrous acid; nitrous acid then decomposes to nitric acid and nitric oxide.	Not applicable; solutions are very acidic	Reported values vary. 0.11-0.14 ppm (minimum perceptible value)	Not applicable	0.42 cP @ 20 C
Argon	-303 F (-186 C)	-308 F (-189 C)	500 mmHg @ -190 C	1.38 (Air=1)	Not applicable	3.36% @ 20 C	Not applicable	Not available	Not applicable	0.0225 cP @ 25 C
Helium	-452 F (-269 C)	-458 F (-272 C) @ 26 atm	1719 mmHg @ -268 C	0.138 (Air=1)	Not applicable	0.94% @ 0 C	Not applicable	Not available	Not applicable	0.02012 cP @ 26.8 C
Krypton	-242 F (-152 C)	-251 F (-157 C)	Not available	Not available	2.155 @ -153 C	Soluble	Not applicable	Odorless	Not applicable	Not available
Neon	-411 F (-246 C)	-416 F (-249 C)	760 mmHg @ -246 C	0.6964 (Air=1)	Not applicable	Slightly soluble	Not applicable	Not available	Not applicable	0.03181 cP @ 26.8 C
Nitrogen	-321 F (-196 C)	-346 F (-210 C)	760 mmHg @ -196 C	0.967 (Air=1)	Not applicable	1.6% @ 20 C	Not applicable	Not available	Not applicable	0.01787 cP @ 27 C
Xenon	-162 F (-108 C)	-170 F (-112 C)	760 mmHg @ -108 C	4.561 (Air=1)	Not applicable	0.00108	Not applicable	Not available	Not applicable	0.528 cP @ 17 C

	Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
Nitrogen Dioxide	46.01 (NO2) or 92.01 (N2O4)	N-O2 or N2-O4	Not available	Not available	100%	Not available	Soluble: Alkalies, chloroform, carbon disulfide and concentrated nitric and sulfuric acids.
Argon	39.948	AR	1.784 g/L @ 0 C	Not available	100%	Not applicable	Soluble: Organic solvents
Helium	4.0026	He	0.1785 g/L @ 0 C	Not available	100%	Not applicable	Insoluble: Not available
Krypton	83.8	KR	Not available	Not available	100%	Not applicable	Soluble
Neon	20.179	Ne	0.9002 g/L @ 0 C	Not available	100%	Not applicable	Soluble: Liquid oxygen
Nitrogen	28.0134	N2	1.2506 g/L	Not available	100%	1	Soluble: Liquid ammonia
Xenon	131.3	XE	5.8878 g/L	Not available	Not available	Not applicable	Not available

Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
Nitrogen Dioxide	Normally stable. Nitrogen dioxide thermally decomposes to nitric oxide and oxygen when heated above 160 deg C.	Normally stable. Nitrogen dioxide thermally decomposes to nitric oxide and oxygen when heated above 160 deg C.	ACETIC ANHYDRIDE, ALCOHOLS, AMMONIA, BORON TRICHLORIDE, CALCIUM, DIMETHYL SULFOXIDE, FORMALDEHYDE, hydrogen, oxygen, metals
Argon	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	No data available.
Helium	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	No data available.
Krypton	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	None known
Neon	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	None known. Neon is inert.
Nitrogen	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	Metals, oxidizing materials
Xenon	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	Halogens

	Hazardous Decomposition Products	Possibility of Hazardous Reactions
Nitrogen Dioxide	Decomposes in water to form nitric acid and nitrous acid.	Will not polymerize.
Argon	No data available.	Will not polymerize.
Helium	Miscellaneous decomposition products	Will not polymerize.
Krypton	Miscellaneous decomposition products	Will not polymerize.
Neon	None.	Will not polymerize.
Nitrogen	Oxides of nitrogen	Will not polymerize.
Xenon	None known.	Will not polymerize.

Section 11: Toxicology Information

Acute Effects

	Oral LD50	Dermal LD50	Inhalation
Nitrogen Dioxide	LC50 Inhalation Vapor Rat 790 mg/m3 5 minutes	Not available	Respiratory tract irritation, cough, dyspnea, headache, nausea, irregular heartbeat, fatigue, pulmonary edema, rapid breathing, increased heart rate, dyspnea, chest pain, bleeding from the lungs or small airways and cyanosis (bluish discoloration of the skin)
Argon	Not established	Not established	Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, 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
Krypton	Not available	Not available	Suffocation
Neon	Not available	Not available	Nausea, vomiting, difficulty breathing, irregular heartbeat, head ache, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma
Nitrogen	Not available	Not available	Nausea, vomiting, difficulty breathing, headache, drowsiness, dizziness, tingling sensation, loss of coordination, convulsions, coma
Xenon	Not available	Not available	Nausea, vomiting, symptoms of drunkenness, suffocation, convulsions, coma

	Eye Irritation	Skin Irritation	Sensitization
Nitrogen Dioxide	Irritation	Liquid: burns	Respiratory tract irritation, difficulty breathing, skin irritation, eye irritation
Argon	No information on significant adverse effects	No information on significant adverse effects	
Helium	Liquid: frostbite, blurred vision	Liquid: frostbite	Difficulty breathing
Krypton	Frostbite	Frostbite	Difficulty breathing
Neon	Liquid: frostbite	Liquid: frostbite	Difficulty breathing
Nitrogen	Contact with rapidly expanding gas may cause burns or frostbite	No information on significant adverse effects	Difficulty breathing
Xenon	No information is available	No information is available	Difficulty breathing

Chronic Effects

	Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Nitrogen Dioxide	May be a carcinogen	Mutagenic	May have reproductive effects.	No data
Argon	Not established	Not established	Not established	No data
Helium	Not available	Not available	Not available	No data
Krypton	Not available	Not available	Not available	No data
Neon	Not available	Not available	Not available	No data
Nitrogen	Not hazardous	Not available	Not available	No data
Xenon	Not available	Not available	Not available	No data

Section 12: Ecological Information

Fate and Transport

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Nitrogen Dioxide	Fish toxicity: Acute LC50 19600 ug/L Fresh water Fish - Tench - Tinca tinca - LARVAE - 20 days - 11.18 mm - 11.36 mg 96 hours Invertebrate toxicity: Acute LC50 79450 ug/L Marine water Crustaceans - Redtail prawn - Penaeus penicillatus - 3.58 to 4.75 cm - 0.4 to 0.69 g 48 hours Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available
Argon	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
Krypton	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
Neon	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
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
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

Section 13: Disposal Considerations

Nitrogen Dioxide	Dispose in accordance with all applicable federal and local regulations.
Argon	Dispose in accordance with all applicable regulations.
Helium	Dispose in accordance with all applicable regulations.
Krypton	Dispose in accordance with all applicable regulations.
Neon	Dispose in accordance with all applicable regulations.
Nitrogen	Dispose in accordance with all applicable regulations.
Xenon	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. (Xenon, Nitrogen)
UN Number	UN1956
Hazard Class	2.2
Hazard Information	Non-Flammable 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
Nitrogen Dioxide	DINITROGEN TETROXIDE; or NITROGEN DIOXIDE	UN1067	2.3, 5.1	Not applicable	DINITROGEN TETROXIDE	Forbidden	Forbidden	N/A
Argon	Argon, compressed	UN1006	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
Krypton	Krypton, compressed	UN1056	2.2	Not applicable	2.2	N/A	N/A	N/A
Neon	Neon, compressed	UN1065	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A
Nitrogen	Nitrogen, compressed	UN1066	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A
Xenon	Xenon, compressed	UN2036	2.2	Not applicable	2.2	50 kg	500 kg	N/A

Canadian Transportation of Dangerous Goods

	Shipping Name	UN Number	Class	Packing Group / Risk Group
Nitrogen Dioxide	DINITROGEN TETROXIDE; or NITROGEN DIOXIDE	UN1067	2.3	Not applicable
Argon	Argon, compressed	UN1006	2.2	Not applicable
Helium	Helium, compressed	UN1046	2.2	Not applicable
Krypton	Krypton, compressed	UN1056	2.2	Not applicable
Neon	Neon, compressed	UN1065	2.2	Not applicable
Nitrogen	Nitrogen, compressed	UN1066	2.2	Not applicable
Xenon	Xenon, compressed	UN2036	2.2	Not applicable

Section 15: Regulatory Information

U.S. Regulations

	CERCLA Sections	SARA 355.30	SARA 355.40
Nitrogen Dioxide	Not regulated.	100 LBS TPQ	10 LBS RQ
Argon	Not regulated.	Not regulated.	Not regulated.
Helium	Not regulated.	Not regulated.	Not regulated.
Krypton	Not regulated.	Not regulated.	Not regulated.
Neon	Not regulated.	Not regulated.	Not regulated.
Nitrogen	Not regulated.	Not regulated.	Not regulated.
Xenon	Not regulated.	Not regulated.	Not regulated.

SARA 370.21

	Acute	Chronic	Fire	Reactive	Sudden Release
Nitrogen Dioxide	Yes	No	Yes	No	Yes
Argon	Yes	No	No	No	Yes
Helium	Yes	No	No	No	Yes
Krypton	Yes	No	No	No	Yes
Neon	Yes	No	No	No	Yes
Nitrogen	Yes	No	No	No	Yes
Xenon	Yes	No	No	No	Yes

SARA 372.65

Nitrogen Dioxide	N/A
Argon	Not regulated.
Helium	Not regulated.
Krypton	Not regulated.
Neon	Not regulated.
Nitrogen	Not regulated.
Xenon	Not regulated.

OSHA Process Safety

Nitrogen Dioxide	Not available
Argon	Not regulated.
Helium	Not regulated.
Krypton	Not regulated.
Neon	Not regulated.
Nitrogen	Not regulated.
Xenon	Not regulated.

State Regulations

	CA Proposition 65
Nitrogen Dioxide	Not regulated.
Argon	Not regulated.
Helium	Not regulated.
Krypton	Not regulated.
Neon	Not regulated.
Nitrogen	Not regulated.
Xenon	Not regulated.

Canadian Regulations

	WHMIS Classification
Nitrogen Dioxide	A, C, D1A, D2B, E
Argon	A
Helium	A
Krypton	A
Neon	A
Nitrogen	A
Xenon	A

National Inventory Status

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

Section 16: Other Information

	NFPA Rating
Nitrogen Dioxide	Not available
Argon	HEALTH=0 FIRE=0 REACTIVITY=0
Helium	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIFIC HAZARD=SA

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