SAFETY DATA SHEET

Material Name: Compressed Gas , N.O.S
(Argon 1-98%/ Carbon Dioxide 2-99%)

Section 1 – Product and Company Identification	
Product Identifier:	Compressed Gas N.O.S
Other means of identification:	Mix Gas, weld gas
Product Uses:	Industrial manufacturing and laboratory including inerting, steel making, metals processing, welding, etc.
Supplier Details:	Western Gasco Cylinders Ltd. 2169 Peardonville Road Abbotsford BC V2T 6J7
Emergency Phone Number:	(613) 996-6666

Section 2 – Hazards Identification	
Classification in accordance with paragraph (d) of §1910.1200	Gas Under Pressure – Compressed gas Simple asphyxiant
Signal word Hazard statement(s) Symbol Precautionary statement	Warning Gas in pipelines may be under pressure, cylinders may explode if heated May displace oxygen and cause rapid suffocation  Read completely and follow all Safety Data Sheets before use Do not handle until all safety precautions have been read and understood Never enter an area where nitrogen may have caused an oxygen deficiency Close valve after each use and when empty Use a backflow preventative device in piping Use equipment and materials rated for cylinder pressure Use and store only outdoors or in well- ventilated area Protect from sunlight

Hazards not otherwise classified	None
Toxicity	Non-toxic but may displace oxygen which can cause dizziness, unconsciousness and death by asphyxiation.

Section 3 – Compositions / Information of Ingredients	
Chemical Name & Formula	Ar/CO2
Common Name and Synonyms	Compressed Gas N.O.S
CAS Number	7440-37-1/124-38-9
Purity	Argon 1% – 99% Carbon Dioxide 2%-99%

Section 4 – First Aid Measures	
Inhalation	Simple asphyxiant, may cause acute effects including dizziness, drowsiness, nausea, rapid breathing, unconsciousness, and death. Victim may not be aware of asphyxiation. Immediately remove victim to fresh air containing sufficient oxygen. If not breathing provide artificial respiration or oxygen by trained personnel, get immediate medical attention. Rescuers must not enter an oxygen deficient area without self contained breathing apparatus.
Skin Contact	No adverse effects expected. Very cold gas may cause frostbite.
Eye Contact	No adverse effects normally expected from gas. Avoid high pressure or very cold gas. Remove contact lenses. Flush with water, seek medical attention if irritation persists.
Ingestion	Not an expected route of exposure, refer to inhalation section above.
Most important symptoms, effects, acute and delayed	Refer to asphyxiation acute effects as per inhalation above

Immediate medical attention and special treatment needed	If symptoms occur, seek medical advice and attention.

Section 5 – Fire Fighting Measures	
Suitable extinguishing media	Compressed Gas N.O.S is not flammable, will not burn. Use appropriate extinguishing media for surrounding fire.
Special hazards arising (e.g. nature of any hazardous combustion process)	Compressed Gas N.O.S is a non-flammable gas. Heat from fire may cause pressure to rise and container to burst. Cool any containers with water if possible.
Special protective equipment and precautions for firefighters	Wear appropriate protective gear and self-contained breathing apparatus. Never attempt to rescue a suspected asphyxiation victim without proper precautions, training and equipment to also avoid exposure to oxygen deficient conditions. Argon gas is heavier than air at same temperature which can cause it to concentrate in low areas and lead to oxygen deficiency.

Section 6 – Accidental Release Measures	
Personal precautions, protective equipment, emergency procedures	First responders should ensure oxygen concentration in area is safe (>19.5%) or be trained and use self-contained breathing apparatus before attempting to rescue a victim. Evacuate personnel to safe area, do not allow personnel to walk or drive in area that is potentially oxygen deficient. Use oxygen monitors to ensure adequate oxygen levels. Never enter suspected oxygen deficient area without being properly trained and wearing a self-contained breathing apparatus. Argon gas is heavier than air at same temperature which can cause it to concentrate in low areas and lead to oxygen deficiency. Prevent spreading of vapors through sewers, ventilation systems and confined areas.
Methods and materials for containment and clean up	Isolate any leaking sources of argon if it can be done safely. Ventilate the area if possible.
Section 7 – Handling and Storage	

Precautions for safe handling	Protect system components against physical damage. Use adequate ventilation. Avoid inhalation and potential confined space areas, use oxygen monitors where appropriate. Never work on a pressurized system. Wear gloves when moving cylinders. Safety glasses always recommended when working with compressed gases. Refer to CGA Safety Bulletin SB-2 “Oxygen Deficient Atmospheres” for additional recommendations.
Conditions for safe storage, including any incompatibilities	Use storage containers, piping, valves and fittings designed for storage and distribution of gaseous argon. Argon gas is heavier than air at same temperature which can cause it to concentrate in low areas and lead to oxygen deficiency. Protect cylinders against physical damage. Store in cool, dry, well-ventilated, fireproof area, away from flammable materials and corrosive atmospheres. Store away from heat and ignition sources and out of direct sunlight. Do not store near elevators, corridors or loading docks. Do not allow area where cylinders are stored to exceed 52°C (125°F). Move cylinders with a suitable hand-truck. Do not drag, slide or roll cylinders. Do not drop cylinders or permit them to strike each other. Secure cylinders firmly. Leave the valve protection cap in-place (where provided) until cylinder is placed into service and after it is taken out of service. Use designated CGA fittings and other support equipment. Do not heat cylinder by any means to increase the discharge rate of the product from the cylinder. Use check valve or trap in discharge line to prevent hazardous backflow into the cylinder. Do not use oils or grease on gas-handling fittings or equipment.

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Section 8 – Exposure Controls / Personal Protection	
Permissible exposure limits	There are no exposure limits for this product. Oxygen levels should be kept above 19.5% for all personnel.
Appropriate Engineering Controls	Adequate ventilation. Low Oxygen monitors and alarms in areas where oxygen deficiency is possible. Pressurized systems to have relief valves properly sized, calibrated and vented.
Individual protection measures / personal protective equipment	Use self-contained breathing apparatus for entering any suspected oxygen deficient area. Use personnel oxygen monitors. Gloves and safety shoes for handling containers/cylinders. Safety glasses / face protection if exposure to discharged gases, eye wash station. Check systems regularly for leaks.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ARGON 7440-37-1	: See Appendix F: Minimal Oxygen Content	None	None
CARBON DIOXIDE 124-38-9	STEL: 30000 ppm TWA: 5000 ppm	TWA: 5000 ppm TWA: 9000 mg/m³ (vacated) TWA: 10000 ppm (vacated) TWA: 18000 mg/m³ (vacated) STEL: 30000 ppm (vacated) STEL: 54000 mg/m³	IDLH: 40000 ppm TWA: 5000 ppm TWA: 9000 mg/m³ STEL: 30000 ppm STEL: 54000 mg/m³

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Section 9 – Physical and Chemical Properties			
Property	**Value**	**Property**	**Value**
Appearance	Colorless	Upper/Lower Explosive Limit	NA
Odor	Odorless	Vapor Pressure	NA
Odor Threshold	NA	Vapor Density	0.103 lb/ft3 @ 70°F 1.65 kg/m3 @ 21.1°C
Molecular Weight	39.95 g/mol	Specific Volume	9.67 ft3/lb @ 70°F 0.61 m3/kg @ 21.1 °C
pH	NA	Relative Density to Air	1.38
Melting / Freezing Point	-308°F / -189°C	Solubility	Slight in water
Boiling Point	-302°F / -186°C	Partition Coefficient: noctanol / water	NA
Flash Point	NA	Auto Ignition Temperature	NA
Evaporation Rate	NA	Decomposition Temperature	NA
Flammability	Non-flammable	Viscosity (dynamic)	0.0226 centipoise @70 °F

Section 10 Stability and Reactivity

Reactivity	Not reactive under normal conditions
Chemical Stability	Stable at normal temperatures and pressures
Possibility of Hazardous Reactions	None

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Conditions to Avoid	Exposure to reactive metals at high temperatures High concentrations causing oxygen deficiency atmosphere leading to asphyxiation effects (see sections 4, 6, 7 & 8)
Incompatible Materials	None known
Hazardous Decomposition Products	None

Section 11 Toxicology Information	
Information on likely routes of exposure	No chemical toxicity Inhalation – simple asphyxiant Ingestion – not an expected route Skin – no affects expected normally, cold gas may cause frostbite Eye – no effects expected normally, cold gas may cause frostbite
Symptoms related to physical, chemical, toxicological characteristics	As a simple asphyxiant, the presence of high concentrations causing an oxygen deficiency in air has symptoms which include dizziness, drowsiness, nausea, unconsciousness, and death.
Delayed, Immediate, chronic effects from short and long term exposure	As a simple asphyxiant, the immediate effects of high concentrations causing oxygen deficiency in air include dizziness, drowsiness, nausea, unconsciousness, and death.
Numerical measures of toxicity	LD50 – not available LC50 – not available
Carcinogen Listing	Not carcinogenic

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Section 12 – Ecological Information	
Ecotoxicity	None
Persistence and degradability	Not applicable. Normal air is approximately 0.9% argon by volume.
Bio-accumulative potential	No information available
Mobility in Soil	No information available
Other Adverse effects	No known other effects

Section 13 Disposal Considerations

Waste residues and disposal guidelines	Product will normally dissipate in air, however argon gas is heavier than air at same temperature which can cause it to concentrate in low areas and lead to oxygen deficiency. Dispose of any contents or containers in accordance with applicable regulations. Cylinders should be returned in original shipping container/method with any valves closed and protective plugs or caps securely in place.

Section 14 – Transport Information	
US DOT UN ID Number	UN1956
UN Proper Shipping Name	Compressed Gas, N.O.S
DOT Transportation Hazard Class	DOT Class 2.2 (Non-Flammable compressed gas) Emergency Response Guide 121 
Packing Group	Not Applicable
Environmental Hazards	None

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Transport Bulk Codes	Not Applicable
Special Precautions	Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Because gas is denser than air, it can cause oxygen deficiency in low areas, with gas spreading along the ground, isolate area to avoid personnel exposure or other vehicles entering the area. High pressure gas cylinders should have outlet valves closed, with plugs/valve caps secured in place. Load space must be separated from driver compartment. Cylinders should be firmly secured from moving or falling during transport.

Section 15 - Regulatory Information
US Federal TSCA Toxic Substance Control Act - exempted US EPA SARA Title III Section 312 hazard Category: Sudden release of pressure hazard US States Right-To-Know Lists: Massachusetts, New Jersey, Pennsylvania

Section 16 Other Information

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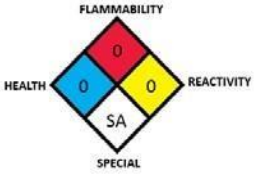
US Nation Fire Protection Agency (NFPA) hazard ratings:

(Scale of 0 to 4, with 0 = lowest increasing to 4 = highest hazard, refer to NFPA for details related to the relative rating for each category)

Health: 0 Fire: 0

Reactivity: 0

Special: SA (Simple Asphyxiant)



US Hazardous Material Information System (HMIS) ratings:

(Scale: 0 = minimal, 1 = slight, 2= moderate, 3 = serious, 4 = severe)

New SDS: 29 June 2018 Rev 0

USE OF THIS INFORMATION:

Western Gasco Cylinders Inc. offers this information to promote the safe use of this product through awareness of hazards and safety information. Those who use or transport or sell this product to others should: 1) Disseminate this information internally to all workplace areas, employees, agents and contractors likely to encounter this product

2) Provide supplemental hazards awareness, safety information, operation and maintenance procedures to the workplace areas and employees, agents and contractors likely to encounter this product

3) Furnish this information to all their customers who purchase this product

4) Ask each purchaser or user of the product to notify its employees and customers of the product hazards and safety information.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:

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