# **Safety Data Sheet** 2904

### **Section 1: Product and Company Identification**

**Absolute Accuracy** 

4591 S Wayside Dr Houston, TX 77087 (832) 571-2387

Product Code: 2904 Part Number: 2904

Synonyms: n/a

Recommended Use: calibration gas

Usage Restrictions: industrial calibration gas only

### **Section 2: Hazards Identification**



**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	7727-37-9	25 %
Argon	7440-37-1	BALANCE

	Chemical Substance	Chemical Family	Trade Names
Nitrogen	NITROGEN, COMPRESSED GAS	Inorganic gases	DIATOMIC NITROGEN; DINITROGEN; NITROGEN; NITROGEN-14; NITROGEN GAS; UN 1066; N2
Argon	ARGON, COMPRESSED	Inorganic gases	ARGON; UN 1006; AR

### **Section 4: First Aid Measures**

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
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.
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.

# **Section 5: Fire Fighting Measures**

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Nitrogen	Non-flammable. Use suitable extinguishing media for surrounding fire. Cylinders may rupture or explode if exposed to heat.	Non-flammable	<ul> <li>Respiratory protection may be needed for frequent or heavy exposure.</li> </ul>
Argon	Non-flammable gas	Not applicable	■ N/A
			■ N/A

### **Section 6: Accidental Release Measures**

	Personal Precautions	Environmental Precautions	Methods for Containment
Nitrogen	Keep unnecessary people away, isolate	No significant effects from contamination	Stop leak if possible without personal risk.
	hazard area and deny entry. Stay	expected.	
	upwind and keep out of low areas.		
Argon	Keep unnecessary people away, isolate	None known.	Stop leak if possible without personal risk.
_	hazard area and deny entry. Stay		
	upwind and keep out of low areas.		

	Methods for Cleanup	Other Information
Nitrogen	N/A	N/A
Argon	Leaks may be detected by a soapy-water solution.	

### **Section 7: Handling and Storage**

	Handling	Storage
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.
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.

### **Section 8: Exposure Controls/Personal Protection**

	Exposure Guidelines
Nitrogen	NITROGEN, COMPRESSED GAS:
_	NITROGEN: ACGIH (simple asphyxiant)
Argon	ARGON, COMPRESSED: ARGON: ACGIH
	(simple asphyxiant)

#### **Engineering Controls**

Handle only in fully enclosed systems.

	Eve Protection	Skin Protection	Respiratory Protection
Nitrogen	Eye protection not required, but	Protective clothing is not required.	Respiratory protection may be needed for
Mitrogen	recommended.	Protective clothing is not required.	frequent or heavy exposure.
Argon	Eye protection not required, but recommended.	Protective clothing is not required.	N/A

#### **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
Nitrog en	Gas	Clear	Colorless	N/A	Gas	Odorless	Tasteless
Argon	Gas	Colorless	Colorless	N/A	Gas	Odorless	Tasteless

	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
Nitro	Not flammable	Not available	Not available	Nonflammable	Nonflammable	Nonflammable
en						
Argo	Not flammable			Nonflammable	Nonflammable	Nonflammable

	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	рН	Odor Threshold	Evaporation Rate	Viscosit y
Nitr oge n	-321 F (- 196 C)	-346 F (- 210 C)	760 mmHg @ -196 C	0.967 (Air=1)	Not applicable	1.6% @ 20 C	Not applic able	Not available	Not applicable	0.01787 cP @ 27 C
Arg on	-303 F (- 186 C)	-308 F (- 189 C)	500 mmHg @ -190 C	1.38 (Air=1)	Not applicable	3.36% @ 20 C	Not applic able	Not available	Not applicable	0.0225 cP @ 25 C

	Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
Nitrog	28.0134	N2	1.2506 g/L	Not available	100%	1	Soluble: Liquid
en							ammonia

	Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
Argon	39.948	AR	1.784 g/L	Not available	100%	Not	Soluble: Organic
			@0C			applicable	solvents

# Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
Nitrogen	Stable at normal temperatures and	Stable at normal temperatures and	Metals, oxidizing materials
	pressure.	pressure.	
Argon	Stable at normal temperatures and	Stable at normal temperatures and	No data available.
	pressure.	pressure.	

	Hazardous Decomposition Products	Possibility of Hazardous Reactions
Nitrogen	Oxides of nitrogen	Will not polymerize.
Argon	No data available.	Will not polymerize.

# **Section 11: Toxicology Information**

#### **Acute Effects**

	Oral LD50	Dermal LD50	Inhalation
Nitrogen	Not available	Not available	Nausea, vomiting, difficulty breathing, headache, drowsiness, dizziness, tingling sensation, loss of coordination, convulsions, coma
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

	Eye Irritation	rritation Skin Irritation S	
Nitroge	Contact with rapidly expanding gas may	No information on significant adverse effects	Difficulty breathing
n	cause burns or frostbite		
Argon	No information on significant adverse effects	No information on significant adverse effects	

#### **Chronic Effects**

	Carcinogenicity	Mutagenicity	Reproductive Effects	Develop mental Effects
Nitrogen	Not hazardous	Not available	Not available	No data
Argon	Not established	Not established	Not established	No data

### **Section 12: Ecological Information**

### **Fate and Transport**

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Nitrog en	Fish toxicity: Not available Invertibrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available
Argon	Fish toxicity: Not available Invertibrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available	Not available	Not available	Not available

Other toxici	ty: Not		
available			

### **Section 13: Disposal Considerations**

Nitrogen	Dispose in accordance with all applicable regulations.
Argon	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. (Argon, 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
Ni tr o g en	Nitrogen, compressed	UN1066	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A
Ar g o n	Argon, compressed	UN1006	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
Nitr	Nitrogen, compressed	UN1066	2.2	Not applicable
oge				
n				
Arg	Argon, compressed	UN1006	2.2	Not applicable
on				

# Section 15: Regulatory Information

**U.S. Regulations** 

	CERCLA Sections	SARA 355.30	SARA 355.40
Nitroge	Not regulated.	Not regulated.	Not regulated.
n			
Argon	Not regulated.	Not regulated.	Not regulated.

#### **SARA 370.21**

	Acute	Chronic	Fire	Reactive	Sudden Release
Nitro	Yes	No	No	No	Yes
gen					
Argo	Yes	No	No	No	Yes
n					

#### **SARA 372.65**

Nitrogen	Not regulated.
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Argon	Not regulated.

### **OSHA Process Safety**

Nitrogen	Not regulated.
Argon	Not regulated.

### **State Regulations**

	CA Proposition 65
Nitrogen	Not regulated.
Argon	Not regulated.

### **Canadian Regulations**

	WHMIS Classification
Nitrogen	A
Argon	A

#### **National Inventory Status**

	US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Nitrog	Listed on inventory.	Not listed.	Listed on inventory.
en			
Argon	Listed on inventory.	Not listed.	Listed on inventory.

# **Section 16: Other Information**

	NFPA Rating	
Nitrogen	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA	
Argon	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA	

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