

bsolute Safety Data Sheet 2816

Section 1: Product and Company Identification

Absolute Accuracy

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

Product Code: 2816

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
Propane	74-98-6	1.05 %
Air	Not applicable	BALANCE

	Chemical Substance	Chemical Family	Trade Names
Propane	PROPANE	Hydrocarbons, Aliphatic, Saturated	N-PROPANE; DIMETHYLMETHANE; PROPYL HYDRIDE; R-290; PROPYLHYDRIDE; LIQUEFIED PETROLEUM GAS; LPG; >96% NATURAL GRADE; >99.9% PURE GRADE; UN 1978; C3H8
Air	AIR, COMPRESSED	Inorganic gases	AIR; UN 1002 Nitrogen CAS: 7727-37-9 Oxygen CAS: 7782-44-7

Section 4: First Aid Measures

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Propane	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.	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.
Air	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. Get medical attention.	

Section 5: Fire Fighting Measures

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Propane	Regular dry chemical, high expansion foam Large fires: Flood with fine water spray.	Carbon monoxide, carbon dioxide, water and toxic and irritating fumes	 Any self-contained breathing apparatus with a full facepiece. Any self-contained breathing apparatus with a full facepiece.
Air	Use extinguishing agents appropriate for surrounding fire		 No respirator is required under normal conditions of use.

Section 6: Accidental Release Measures

	Personal Precautions	Environmental Precautions	Methods for Containment
Propane	Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. Do not touch spilled material.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.
Air			Stop leak if possible without personal risk.

	Methods for Cleanup	Other Information
Propane	Contact emergency personnel	None
Air		

Section 7: Handling and Storage

	Handling	Storage
Propane	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.	Keep separated from incompatible substances.
Air	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	

Section 8: Exposure Controls/Personal Protection

	Exposure Guidelines
Propane	PROPANE: 1000 ppm (1800 mg/m3) OSHA TWA 1000 ppm (1800 mg/m3) NIOSH recommended TWA 10 hour(s) LIQUIFIED PETROLEUM GAS (LPG): 1000 ppm (1800 mg/m3) OSHA TWA 1000 ppm ACGIH TWA 1000 ppm (1800 mg/m3) NIOSH recommended TWA 10 hour(s) ALIPHATIC HYDROCARBON GASES ALKANE (C1-C4): 1000 ppm ACGIH TWA
Air	AIR, COMPRESSED: No occupational exposure limits established.

Engineering Controls

Handle only in fully enclosed systems.

	Eye Protection	Skin Protection	Respiratory Protection
Propane	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.
Air	Eye protection not required under normal	Protective clothing is not required	No respirator is required under normal
	conditions.	under normal conditions.	conditions of use.

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
Propan e	Gas	Clear	Colorless	N/A	Gas	Gasoline odor	N/A
Air	Gas	Clear	Colorless		Gas	Not available	

	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
Propan e	-157 F (-105 C)	Not available	Not available	842 F (450 C)	0.095	0.021
Air						

	Boiling	Freezing	Vapor	Vapor	Specific	Water	pН	Odor	Evaporation	Viscosity
	Point	Point	Pressure	Density	Gravity	Solubility		Threshold	Rate	
Prop ane	-40 F (-40 C)	-310 F (- 190 C)	6398 mmHg @ 21.1 C	1.55 (Air=1)	0.5853 @ - 45 C	Very slightly soluble	Not applic able	5000-20000 ppm	Not applicable	Not available
Air	-317 F (- 194 C)	Not available	760 mmHg @ -194 C	1	Not applicable	Slightly soluble	Not applic able	Not available	Not applicable	0.01853 cP @ 26.85 C

	Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
Propa ne	44.11	C-H3-C-H2-C-H3	0.116	Not available	Not available	Not applicable	Soluble: Absolute alcohol, ether, chloroform, benzene, turpentine
Air			1.29 g/L @ 0 C			Not applicable	Slightly Soluble

Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
Propane	Stable at normal temperatures and	Stable at normal temperatures and	Oxidizing materials, combustible materials,
	pressure.	pressure.	halogen compounds,
Air	Stable at normal temperatures and	Stable at normal temperatures and	None known
	pressure.	pressure.	

	Hazardous Decomposition Products	Possibility of Hazardous Reactions	
Propane	Oxides of carbon	Will not polymerize.	
Air	No hazard expected.	Will not polymerize.	

Section 11: Toxicology Information

Acute Effects

	Oral LD50	Dermal LD50	Inhalation
Propane	LC50 Inhalation Gas. Rat >800000 ppm 15 minutes	Not available	Central nervous system depression, difficulty breathing, nausea, vomiting, irregular heartbeat, headache, symptoms of drunkenness, disorientation, suffocation, convulsions, coma
Air	Not available	Not available	

Eye Irritation		Skin Irritation	Sensitization	
Propane	Liquid: frostbite, blurred vision	Liquid: blisters, frostbite	No health hazards classified.	
Air	No information is available	No information is available	No significant target effects reported.	

Chronic Effects

	Carcinogenicity	Mutagenicity	Reproductive Effects	Developm ental Effects
Propane	Not available	Not available	Not available	No data
Air	Not available	Not available	No data	No data

Section 12: Ecological Information

Fate and Transport

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Propan	Fish toxicity: Not	Not available	Not available	Not available
e	available			
	Invertibrate toxicity:			
	Not available			
	Algal toxicity: Not			
	available			

	Phyto toxicity: Not available Other toxicity: Not available			
Air	Fish toxicity: Not available	Not available	Not available	Not available

Section 13: Disposal Considerations

Propane	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.	
Air	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. (Air, Propane)					
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
Pr op an e	Propane	UN1978	2.1	Not applicable	2.1	Forbidden	150 kg	N/A
Ai r	Air, compressed	UN1002	2.2	Not available	2.2	Not available	Not available	Not available

Canadian Transportation of Dangerous Goods

		9		
	Shipping Name	UN Number	Class	Packing Group / Risk Group
Prop	Propane	UN1978	2.1	Not applicable
ane				
Air	Air, compressed	UN1002	2.2	Not available

Section 15: Regulatory Information

U.S. Regulations

	CERCLA Sections	SARA 355.30	SARA 355.40
Propa	e Not regulated.	Not regulated.	Not regulated.
Air	Not regulated.	Not regulated.	Not regulated.

SARA 370.21

	Acute	Chronic	Fire	Reactive	Sudden Release
Propa	Yes	No	Yes	No	Yes
ne					
Air	No	No	No	No	Yes

SARA 372.65

Propane	Not regulated.
Air	Not regulated.

OSHA Process Safety

Propane	Not regulated.
Air	Not regulated.

State Regulations

	CA Proposition 65
Propane	Not regulated.
Air	Not regulated.

Canadian Regulations

	WHMIS Classification
Propane	A, B1.
Air	A

National Inventory Status

	US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Propan	Listed on inventory.	Not listed.	Listed on inventory.
е			
Air	Not listed on inventory.	Not listed.	Not determined.

Section 16: Other Information

	NFPA Rating	
Propane	HEALTH=2 FIRE=4 REACTIVITY=0	
Air	HEALTH=0 FIRE=0 REACTIVITY=0	

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