



PREFERRED CHEMICAL NAME:		BUTANE		CAS #:	106-97-8
Molecular Wt.	58.12	Molecular Formula:	C ₄ H ₁₀	Structural Molecular Formula:	CH ₃ CH ₂ CH ₂ CH ₃
Alternate Chemical Names:		n-Butane (NIOSH)			
DOT UN # :	1011 (butane) 1075 (petroleum gases, liquefied)	RTECS # :	EJ4200000	NFPA 704: H-F-R-Special Hazard:	1 - 4 - 0
Physical State - Description:		Colorless Gas; Faint, Disagreeable Odor Odor Threshold: 2.8500 to 14.6300 mg/m ³			

PHYSICAL DATA					
Property	Value	Source	Property	Value	Source
Melting – Freezing Point (@ saturation pressure):	-217.05°F (-138.36°C) @ 14.696 psia	GPSA	Boiling Point:	31.12°F (-0.50°C) @ 14.696 psia	GPSA
Critical Temperature:	305.62°F (152.01°C)	GPSA	Critical Pressure:	550.7 psia	GPSA
Autoignition Temperature:	550°F (288°C)	GENIUM	Flash Point (closed cup):	-76°F (-60°C)	GENIUM
Lower Flammability Limit:	1.8%	GPSA	Upper Flammability Limit:	8.4%	GPSA
Vapor Pressure:	51.54 psia @ 100°F (38°C)	GPSA	Vapor Specific Gravity (air = 1):	2.0068	GPSA
Liquid Density (weight in vacuum, saturation pressure):	4.870 lb/gal @ 60°F (16°C)	GPSA	Vapor Density:	0.153 lb/cu. ft. @ 14.696 psia @ 60°F (16°C)	GPSA
Liquid Specific Gravity (water = 1, saturation pressure):	0.5842 @ 60°F/60°F (16°C/16°C)	GPSA	Conversion:	1 ppm = 2.38 mg/m ³ 1 ppm = 0.00238 mg/l	NIOSH

HAZARD OVERVIEWS		
Hazard	Overview	Source
HEALTH	May cause burns or frostbite to the eyes and skin. A simple asphyxiant which can displace available oxygen. Also Causes: drowsiness, lightheadedness.	GENIUM
FIRE	Flammable. Can form explosive mixtures in the air. Stop flow of gas. Use water to cool fire-exposed tanks. Carbon dioxide can be used to smother flame; however, gas can reignite and possibly explode.	GENIUM
REACTIVITY	Stable. Hazardous polymerization cannot occur. Avoid: heat; flame; oxidizers. Incompatible with: flames; nickel carbonyl and oxygen; oxidizing agents. Hazardous decomposition products: acrid smoke; fumes.	GENIUM
SPECIAL HAZARD	None.	GENIUM

TOXICITY/EXPOSURE INFORMATION					
Data Term	Toxic Limit Value	Source	Data Term	Toxic Limit Value	Source
ERPG-1 :	None Listed	AIHA	TLV TWA :	1000 ppm	ACGIH
ERPG-2 :	None Listed	AIHA	TLV STEL :	None Listed	ACGIH
ERPG-3 :	None Listed	AIHA	PEL TWA:	None Listed	OSHA
IDLH :	Not Determined	NIOSH	PEL STEL:	None Listed	OSHA
Classification	10 Min Exposure	30 Min Exposure	1 Hour Exposure	4 Hour Exposure	8 Hour Exposure
AEGL-1 (interim):	10000 ppm	6900 ppm	5500 ppm	5500 ppm	5500 ppm
AEGL-2 (interim):	24000 ppm	17000 ppm	17000 ppm	17000 ppm	17000 ppm
AEGL-3 (interim):	77000 ppm	53000 ppm	53000 ppm	53000 ppm	53000 ppm



LISTING OF SUBSTANCE ON PERTINENT SAFETY/ENVIRONMENTAL PROGRAMS						
Y/N	Program	Statute	Regulation	Limits or Values		
N	EPCRA EHS	Section 302 of SARA Title III Emergency Planning	40 CFR Part 355	TPQ:		
				RQ:		
N	CERCLA	Section 304 of SARA Title III Emergency Notification	40 CFR Part 302	RQ:		
N	EPCRA Section 313	Section 313 of SARA Title III Toxic Release Inventory Reporting	40 CFR Part 372			
Y	RMP	Section 112(r) of CAAA 1990 Risk Management Plan	40 CFR Part 68	TQ:	10,000	lbs
Y	PSM	Section 304 of CAAA 1990 Process Safety Management	29 CFR Part 1910.119	TQ:	10,000	lbs
Y	NDEP-CAPP	Nevada Revised Statutes 459.3816 Chemical Accident Prevention Program	NAC 459.9533	TQ:	10,000	lbs