



PREFERRED CHEMICAL NAME:		ISOBUTANE		CAS #:	75-28-5
Molecular Wt.	58.12	Molecular Formula:	C ₄ H ₁₀	Structural Molecular Formula:	CH ₃ CH(CH ₃) ₂
Alternate Chemical Names:		1,1-dimethyl ethane			
DOT UN # :	1969 (isobutane) 1075 (petroleum gases, liquefied)	RTECS # :	TZ4300000	NFPA 704: H-F-R-Special Hazard:	1 – 4 – 0
Physical State - Description:		Colorless Gas; Liquid Under Pressure; Slight Petroleum Color Odor Threshold: 2.9 mg/m ³			

PHYSICAL DATA					
Property	Value	Source	Property	Value	Source
Melting – Freezing Point (@ saturation pressure):	-255.28°F (-159.6°C) @ 14.696 psia	GPSA	Boiling Point:	10.74°F (-11.81°C) @ 14.696 psia	GPSA
Critical Temperature:	274.96°F (134.98°C)	GPSA	Critical Pressure:	529.1 psia	GPSA
Autoignition Temperature:	860°F (460°C)	GENIUM	Flash Point (closed cup):	-117°F (-83°C)	GENIUM
Lower Flammability Limit:	1.8%	GPSA	Upper Flammability Limit:	8.4%	GPSA
Vapor Pressure:	72.39 psia @ 100°F (38°C)	GPSA	Vapor Specific Gravity (air = 1):	2.0068	GPSA
Liquid Density (weight in vacuum, saturation pressure):	4.694 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):	0.5630 @ 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 frostbite/chemical burns. Also Causes: asphyxiation, CNS depression, dizziness, fatigue, decreased vision, mood disturbances, headache, confusion, cyanosis, incoordination, anesthesia, respiratory arrest, irregular heartbeat. Chronic Effects: cardiac sensitizer.	GENIUM
FIRE	Flammable. Can form explosive mixtures in the air. Shut off gas flow. For small fires, use dry chemical or carbon dioxide. For large fires, use water spray or fog.	GENIUM
REACTIVITY	Stable. Hazardous polymerization cannot occur. Avoid: exposure to heat, ignition sources, and oxidizers. Incompatible with: heat; flame; oxidizers. Hazardous decompositions products: acrid smoke; irritating 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



TOXICITY/EXPOSURE INFORMATION (continued)					
Classification	10 Min Exposure	30 Min Exposure	1 Hour Exposure	4 Hour Exposure	8 Hour Exposure
AEGL-1:	None Listed	None Listed	None Listed	None Listed	None Listed
AEGL-2:	None Listed	None Listed	None Listed	None Listed	None Listed
AEGL-3:	None Listed	None Listed	None Listed	None Listed	None Listed

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