



PREFERRED CHEMICAL NAME:		ISOPENTANE		CAS #:	78-78-4
Molecular Wt.	72.15	Molecular Formula:	C ₅ H ₁₂	Structural Molecular Formula:	(CH ₃) ₂ CHCH ₂ CH ₃
Alternate Chemical Names:		NA			
DOT UN # :	1265 (pentanes)	RTECS # :	EK4430000	NFPA 704: H-F-R-Special Hazard:	1 - 4 - 0
Physical State - Description:		Colorless Liquid; Pleasant Odor Odor Threshold Low: 400 ppm (NLM)			

PHYSICAL DATA					
Property	Value	Source	Property	Value	Source
Melting – Freezing Point:	-255.82°F (-159.9°C) @ 14.696 psia	GPSA	Boiling Point:	82.11°F (27.84°C) @ 14.696 psia	GPSA
Critical Temperature:	369.03°F (187.24°C)	GPSA	Critical Pressure:	490.4 psia	GPSA
Autoignition Temperature:	788°F (420°C)	GENIUM	Flash Point (closed cup):	< -60.0°F (-51.111°C)	GENIUM
Lower Flammability Limit:	1.4%	GPSA	Upper Flammability Limit (estimated):	8.3%	GPSA
Vapor Pressure:	20.444 psia @ 100°F (38°C)	GPSA	Vapor Specific Gravity (air = 1):	2.4911	GPSA
Liquid Density (weight in vacuum):	5.206 lb/gal @ 14.696 psia @ 60°F (16°C)	GPSA	Vapor Density:	0.190 lb/cu. ft. @ 14.696 psia @ 60°F (16°C)	GPSA
Liquid Specific Gravity (water = 1):	0.6244 @ 60°F/60°F (16°C/16°C)	GPSA	Conversion (for pentane):	1 ppm = 2.95 mg/m ³ 1 ppm = 0.00295 mg/l	CCOHS*

HAZARD OVERVIEWS		
Hazard	Overview	Source
HEALTH	Irritating to eyes/skin/respiratory tract. Also Causes: irregular heartbeat, nausea, abdominal swelling, headache, aspiration pneumonitis. Chronic Effects: dermatitis.	GENIUM
FIRE	Flammable. Can form explosive mixtures in the air. Use foam, carbon dioxide, or dry chemical. Use water spray to cool fire-exposed containers and to push down vapor.	GENIUM
REACTIVITY	Stable. Hazardous polymerization cannot occur. Incompatible with: oxidizing materials. Hazardous decomposition products: acrid smoke and 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 :	600 ppm	ACGIH
ERPG-2 :	None Listed	AIHA	TLV STEL :	None Listed	ACGIH
ERPG-3 :	None Listed	AIHA	PEL TWA:	None Listed	OSHA
IDLH :	None Listed	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

*See Conversions Page