

MW-67S 1,1-DCE												
General Statistics												
Total Number of Observations					6	Number of Distinct Observations					5	
						Number of Missing Observations					0	
Minimum					0.43	Mean					1.195	
Maximum					2	Median					1.2	
SD					0.518	Std. Error of Mean					0.211	
Coefficient of Variation					0.433	Skewness					0.143	
Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,												
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,												
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).												
The Chebyshev UCL often results in gross overestimates of the mean.												
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.												
Normal GOF Test												
Shapiro Wilk Test Statistic					0.967	Shapiro Wilk GOF Test						
1% Shapiro Wilk Critical Value					0.713	Data appear Normal at 1% Significance Level						
Lilliefors Test Statistic					0.179	Lilliefors GOF Test						
1% Lilliefors Critical Value					0.373	Data appear Normal at 1% Significance Level						
Data appear Normal at 1% Significance Level												
Note GOF tests may be unreliable for small sample sizes												
Assuming Normal Distribution												
95% Normal UCL						95% UCLs (Adjusted for Skewness)						
95% Student's-t UCL					1.621	95% Adjusted-CLT UCL (Chen-1995)					1.556	
						95% Modified-t UCL (Johnson-1978)					1.623	
Gamma GOF Test												
A-D Test Statistic					0.323	Anderson-Darling Gamma GOF Test						
5% A-D Critical Value					0.698	Detected data appear Gamma Distributed at 5% Significance Level						
K-S Test Statistic					0.228	Kolmogorov-Smirnov Gamma GOF Test						

5% K-S Critical Value				0.333	Detected data appear Gamma Distributed at 5% Significance Level						
Detected data appear Gamma Distributed at 5% Significance Level											
Note GOF tests may be unreliable for small sample sizes											
Gamma Statistics											
k hat (MLE)				5.329	k star (bias corrected MLE)				2.776		
Theta hat (MLE)				0.224	Theta star (bias corrected MLE)				0.431		
nu hat (MLE)				63.95	nu star (bias corrected)				33.31		
MLE Mean (bias corrected)					MLE Sd (bias corrected)				0.717		
					Approximate Chi Square Value (0.05)				21.11		
Adjusted Level of Significance					0.0122	Adjusted Chi Square Value				17.7	
Assuming Gamma Distribution											
95% Approximate Gamma UCL					1.885	95% Adjusted Gamma UCL				2.249	
Lognormal GOF Test											
Shapiro Wilk Test Statistic					0.906	Shapiro Wilk Lognormal GOF Test					
10% Shapiro Wilk Critical Value					0.826	Data appear Lognormal at 10% Significance Level					
Lilliefors Test Statistic					0.244	Lilliefors Lognormal GOF Test					
10% Lilliefors Critical Value					0.298	Data appear Lognormal at 10% Significance Level					
Data appear Lognormal at 10% Significance Level											
Note GOF tests may be unreliable for small sample sizes											
Lognormal Statistics											
Minimum of Logged Data					-0.844	Mean of logged Data				0.0814	
Maximum of Logged Data					0.693	SD of logged Data				0.517	
Assuming Lognormal Distribution											
95% H-UCL					2.304	90% Chebyshev (MVUE) UCL				1.976	
95% Chebyshev (MVUE) UCL					2.323	97.5% Chebyshev (MVUE) UCL				2.804	
99% Chebyshev (MVUE) UCL					3.749						
Nonparametric Distribution Free UCL Statistics											

Data appear to follow a Discernible Distribution												
Nonparametric Distribution Free UCLs												
95% CLT UCL					1.543	95% BCA Bootstrap UCL					1.5	
95% Standard Bootstrap UCL					1.514	95% Bootstrap-t UCL					1.649	
95% Hall's Bootstrap UCL					1.681	95% Percentile Bootstrap UCL					1.533	
90% Chebyshev(Mean, Sd) UCL					1.829	95% Chebyshev(Mean, Sd) UCL					2.116	
97.5% Chebyshev(Mean, Sd) UCL					2.515	99% Chebyshev(Mean, Sd) UCL					3.298	
Suggested UCL to Use												
95% Student's-t UCL					1.621							
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.												
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.												
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.												