Details

Title:

Comments:

Object: MSTR-017

Pressure 1.01325 bar Mass Flow 10.5513 kg/h Molar Flow 0.310435 kmolh Volumetric Flow 8.99141 m30h Mixture Density 1.17349 kg/m3 Mixture Molar Weight 33.9888 kg/kmol Mixture Specific Enthalpy 83.9035 kJ/kg kJ Mixture Molar Enthalpy 0.480339 kJ/kmol Mixture Molar Enthalpy 16.3261 kJ/kmol Mixture Molar Enthalpy 16.3261 kJ/kmol KJ Mixture Molar Faction w/m.k. Water 0.3966 Acetonitrile 0.8934 Acetonitrile 0.8934 Ammonia 2.46823E-16 Carbon dioxide 0 Hydrogen cyanide 1.17349 kg/m3 Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 33.9888 kg/kmol Vapor Phase Molar Enthalpy 83.905 kJ/kmol Vapor Phas	Property	Value	
Mass Flow 10.5513 kg/h Molar Flow 0.310435 kmol/h Volumetric Flow 8.99141 m3/h Mixture Density 1.17349 kg/mol Mixture Specific Enthalpy 83.9035 kJ/kg k Mixture Specific Enthalpy 0.480339 kJ/kg kJ Mixture Molar Enthalpy 2851.78 kJ/kmol Mixture Molar Entropy 16.3261 kJ/kmol kJ Mixture Molar Faction w/m kJ Water 0.3068	Temperature	87.4088	С
Molar Flow 0.310435 kmolth Volumetric Flow 8.99141 m3/h Mixture Density 1.17349 kg/m3 Mixture Molar Weight 33.9888 kg/kmol Mixture Specific Enthalpy 8.30035 kJ/kg kJ Mixture Molar Entropy 0.480339 kJ/kmol kJ Mixture Molar Enthalpy 2851.78 kJ/kmol kJ Mixture Molar Entropy 0.168406 W/fm KJ Mixture Molar Fraction w/fm KJ Water 0.3066 V Acetonitrile 0.6894 V Anmonia 2.48823E-16 V Carbon dioxide 0 V Vapor Phase Density 1.17887E-07 V Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg KJ Vapor Phase Specific Entropy 0.480339 kJ/kg KJ Vapor Phase Molar Entropy 16.3261 kJ/kmol KJ Vapor Phase Molar Entropy 16.3261 kJ/kmol KJ Vapor Phase Molar Entropy 16.3281 </th <th>Pressure</th> <th>1.01325</th> <th>bar</th>	Pressure	1.01325	bar
Volumetric Flow 8.99141 m3/h Mixture Density 1.17349 kg/m3 Mixture Molar Weight 33.9888 kg/kmol Mixture Specific Enthalpy 83.9035 kJ/kg Mixture Specific Entropy 0.490339 kJ/kg Kl Mixture Molar Enthalpy 2861.78 kJ/kmol Kl Mixture Molar Enthalpy 16.3261 kJ/kmol Kl Mixture Molar Fraction W/m Kl Water 0.3066 V Acetonitrile 0.8934 V Acetonitrile 0.8934 V Carbon dioxide 0 V Vapor Phase Density 1.17349 kg/m3 Vapor Phase Density 1.17349 kg/m3 Vapor Phase Molar Weight 33.988 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg Kl Vapor Phase Specific Entropy 0.480339 kJ/kmol Kl Vapor Phase Molar Enthalpy 2851.78 kJ/kmol Kl Vapor Phase Molar Entropy 16.3261 kJ/kmol Kl Vapor Phase Molar Entropy	Mass Flow	10.5513	kg/h
Mixture Density 1.17349 kg/m3 Mixture Molar Weight 33.9888 kg/kmol Mixture Specific Enthalpy 63.9035 kJ/kg K] Mixture Specific Entropy 0.480339 kJ/kmol Mixture Molar Enthalpy 16.3261 kJ/kmol K] Mixture Molar Entropy 16.3261 kJ/kmol K] Mixture Molar Fraction W/m.K] Water 0.3066 ————————————————————————————————————	Molar Flow	0.310435	kmol/h
Mixture Molar Weight 33.9888 kg/kmol Mixture Specific Enthalpy 83.9035 kJ/kg Mixture Specific Entropy 0.480339 kJ/kg K] Mixture Molar Enthalpy 2851.78 kJ/kmol Mixture Molar Entropy 16.3281 kJ/kmol.K] Mixture Molar Entropy 16.3281 kJ/kmol.K] Mixture Molar Fraction W/m.K] Water 0.3066 ————————————————————————————————————	Volumetric Flow	8.99141	m3/h
Mixture Specific Enthalpy 83.9035 kJ/kg Mixture Specific Entropy 0.480339 kJ/kg, k] Mixture Molar Enthalpy 2851.78 kJ/kmol.K] Mixture Molar Entropy 16.3261 kJ/kmol.K] Mixture Thermal Conductivity 0.0158406 W/m.K] Mixture Molar Fraction Water 0.3066 Acetonitrile 0.6934 Variant State S	Mixture Density	1.17349	kg/m3
Mixture Specific Entropy 0.480339 kJ/kg.k¹ Mixture Molar Enthalpy 2851.78 kJ/kmol Mixture Molar Entropy 16.3261 kJ/kmol.k¹ Mixture Thermal Conductivity 0.0158406 W/lm.k¹ Mixture Molar Fraction Water 0.3066	Mixture Molar Weight	33.9888	kg/kmol
Mixture Molar Enthalpy 2851.78 kJ/kmol Mixture Molar Entropy 16.3261 kJ/[kmol.K] Mixture Thermal Conductivity 0.0158406 W/[m.K] Mixture Molar Fraction Water 0.3066	Mixture Specific Enthalpy	83.9035	kJ/kg
Mixture Molar Entropy 16.3261 kJ/[kmol.K] Mixture Thermal Conductivity 0.0158406 W/[m.K] Mixture Molar Fraction Water 0.3066	Mixture Specific Entropy	0.480339	kJ/[kg.K]
Mixture Thermal Conductivity 0.0158406 W/m.K] Mixture Molar Fraction Water Acetonitrile 0.6934 Water Acetonidoxide 0 Water Ammonia 2.46823E-16 Water Ammonia 1.13887E-07 Water Ammonia Mydrogen cyanide 1.17349 kg/m3 Vapor Phase Density 1.17349 kg/m3 Water Ammonia kg/kmol Vapor Phase Molar Enthalpy 33.9888 kg/kmol Water Ammonia Mydrogen Cyanide Centhalpy Mydrogen Cyanide Centh	Mixture Molar Enthalpy	2851.78	kJ/kmol
Mixture Molar Fraction Water 0.3066 Acetonitrile 0.6934 Ammonia 2.46823E-16 Carbon dioxide 0 Hydrogen cyanide 1.13887E-07 Vapor Phase Density 1.17349 kg/m3 Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 33.9035 kJ/kg Vapor Phase Specific Entropy 0.480339 kJ/kg.K] Vapor Phase Molar Enthalpy 2851.78 kJ/kmol.K] Vapor Phase Molar Entropy 16.3261 kJ/kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Mixture Molar Entropy	16.3261	kJ/[kmol.K]
Water 0.3066 Acetonitrile 0.6934 Ammonia 2.46823E-16 Carbon dioxide 0 Hydrogen cyanide 1.13887E-07 Vapor Phase Density 1.17349 kg/m3 Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg.K] Vapor Phase Specific Entropy 0.480339 kJ/kg.K] Vapor Phase Molar Enthalpy 2851.78 kJ/kmol Vapor Phase Molar Entropy 16.3261 kJ/kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Dynamic Viscosity 1.50408 kJ/kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Mass Flow 10.6513 kg/h Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Mixture Thermal Conductivity	0.0158406	W/[m.K]
Acetonitrile 0.6934 Ammonia 2.46823E-16 Carbon dioxide 1.13887E-07 Hydrogen cyanide 1.17349 kg/m3 Vapor Phase Density 3.9888 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg Vapor Phase Specific Entropy 0.480339 kJ/kg,K] Vapor Phase Molar Entropy 16.3261 kJ/kmol Vapor Phase Molar Entropy 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg,K] Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg,K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Mass Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Mixture Molar Fraction		
Ammonia 2.46823E-16 Carbon dioxide 0 Hydrogen cyanide 1.13887E-07 Vapor Phase Density 1.17349 kg/m3 Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg Vapor Phase Specific Entropy 0.480339 kJ/[kmol.K] Vapor Phase Molar Enthalpy 2851.78 kJ/[kmol.K] Vapor Phase Molar Entropy 16.3261 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Dynamic Viscosity 1.00713E-05 Pa.s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg,K] Vapor Phase Mass Flow 10.5513 kg/h Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Water	0.3066	
Carbon dioxide 0 Hydrogen cyanide 1.13887E-07 Vapor Phase Density 1.17349 kg/m3 Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg Vapor Phase Specific Entropy 0.480339 kJ/kg.K] Vapor Phase Molar Enthalpy 2851.78 kJ/kmol.K] Vapor Phase Molar Entropy 16.3261 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Mass Flow 10.5513 kg/h Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Acetonitrile	0.6934	
Hydrogen cyanide 1.13887E-07 Vapor Phase Density 1.17349 kg/m3 Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg Vapor Phase Specific Entropy 0.480339 kJ/[kg.K] Vapor Phase Molar Enthalpy 2851.78 kJ//kmol Vapor Phase Molar Entropy 16.3261 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Dynamic Viscosity 1.00713E-05 Pa.s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg.K] Vapor Phase Mass Flow 10.5513 kg/h Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Ammonia	2.46823E-16	
Vapor Phase Density 1.17349 kg/m3 Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg Vapor Phase Specific Entropy 0.480339 kJ/[kg.K] Vapor Phase Molar Enthalpy 2851.78 kJ/kmol Vapor Phase Molar Entropy 16.3261 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Dynamic Viscosity 1.00713E-05 Pa.s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Mass Flow 10.5513 kg/h Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Carbon dioxide	0	
Vapor Phase Molar Weight 33.9888 kg/kmol Vapor Phase Specific Enthalpy 83.9035 kJ/kg Vapor Phase Specific Entropy 0.480339 kJ/[kg.K] Vapor Phase Molar Enthalpy 2851.78 kJ/kmol Vapor Phase Molar Entropy 16.3261 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Dynamic Viscosity 1.00713E-05 Pa.s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Hydrogen cyanide	1.13887E-07	
Vapor Phase Specific Entropy 83.9035 kJ/kg Vapor Phase Specific Entropy 0.480339 kJ/[kg.K] Vapor Phase Molar Enthalpy 2851.78 kJ/[kmol.K] Vapor Phase Molar Entropy 16.3261 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Dynamic Viscosity 1.00713E-05 Pa.s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Vapor Phase Density	1.17349	kg/m3
Vapor Phase Specific Entropy 0.480339 kJ/[kg.K] Vapor Phase Molar Enthalpy 2851.78 kJ/[kmol.K] Vapor Phase Molar Entropy 16.3261 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0158406 W/[m.K] Vapor Phase Kinematic Viscosity 8.58234E-06 m2/s Vapor Phase Dynamic Viscosity 1.00713E-05 Pa.s Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Vapor Phase Molar Weight	33.9888	kg/kmol
Vapor Phase Molar Enthalpy2851.78kJ/kmolVapor Phase Molar Entropy16.3261kJ/[kmol.K]Vapor Phase Thermal Conductivity0.0158406W/[m.K]Vapor Phase Kinematic Viscosity8.58234E-06m2/sVapor Phase Dynamic Viscosity1.00713E-05Pa.sVapor Phase Heat Capacity (Cp)1.50408kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.2164Vapor Phase Mass Flow10.5513kg/hVapor Phase Molar Flow0.310435kmol/hVapor Phase Volumetric Flow8.99141m3/h	Vapor Phase Specific Enthalpy	83.9035	kJ/kg
Vapor Phase Molar Entropy16.3261kJ/[kmol.K]Vapor Phase Thermal Conductivity0.0158406W/[m.K]Vapor Phase Kinematic Viscosity8.58234E-06m2/sVapor Phase Dynamic Viscosity1.00713E-05Pa.sVapor Phase Heat Capacity (Cp)1.50408kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.2164Vapor Phase Mass Flow10.5513kg/hVapor Phase Molar Flow0.310435kmol/hVapor Phase Volumetric Flow8.99141m3/h	Vapor Phase Specific Entropy	0.480339	kJ/[kg.K]
Vapor Phase Thermal Conductivity0.0158406W/[m.K]Vapor Phase Kinematic Viscosity8.58234E-06m2/sVapor Phase Dynamic Viscosity1.00713E-05Pa.sVapor Phase Heat Capacity (Cp)1.50408kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.2164Vapor Phase Mass Flow10.5513kg/hVapor Phase Molar Flow0.310435kmol/hVapor Phase Volumetric Flow8.99141m3/h	Vapor Phase Molar Enthalpy	2851.78	kJ/kmol
Vapor Phase Kinematic Viscosity8.58234E-06m2/sVapor Phase Dynamic Viscosity1.00713E-05Pa.sVapor Phase Heat Capacity (Cp)1.50408kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.2164Vapor Phase Mass Flow10.5513kg/hVapor Phase Molar Flow0.310435kmol/hVapor Phase Volumetric Flow8.99141m3/h	Vapor Phase Molar Entropy	16.3261	kJ/[kmol.K]
Vapor Phase Dynamic Viscosity1.00713E-05Pa.sVapor Phase Heat Capacity (Cp)1.50408kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.2164Vapor Phase Mass Flow10.5513kg/hVapor Phase Molar Flow0.310435kmol/hVapor Phase Volumetric Flow8.99141m3/h	Vapor Phase Thermal Conductivity	0.0158406	W/[m.K]
Vapor Phase Heat Capacity (Cp) 1.50408 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.2164 Vapor Phase Mass Flow 10.5513 kg/h Vapor Phase Molar Flow 0.310435 kmol/h Vapor Phase Volumetric Flow 8.99141 m3/h	Vapor Phase Kinematic Viscosity	8.58234E-06	m2/s
Vapor Phase Heat Capacity Ratio (Cp/Cv)1.2164Vapor Phase Mass Flow10.5513kg/hVapor Phase Molar Flow0.310435kmol/hVapor Phase Volumetric Flow8.99141m3/h	Vapor Phase Dynamic Viscosity	1.00713E-05	Pa.s
Vapor Phase Mass Flow10.5513kg/hVapor Phase Molar Flow0.310435kmol/hVapor Phase Volumetric Flow8.99141m3/h	Vapor Phase Heat Capacity (Cp)	1.50408	kJ/[kg.K]
Vapor Phase Molar Flow0.310435kmol/hVapor Phase Volumetric Flow8.99141m3/h	Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.2164	
Vapor Phase Volumetric Flow 8.99141 m3/h	Vapor Phase Mass Flow	10.5513	kg/h
·	Vapor Phase Molar Flow	0.310435	kmol/h
Vapor Phase Compressibility Factor 0.979011	Vapor Phase Volumetric Flow	8.99141	m3/h
	Vapor Phase Compressibility Factor	0.979011	

Details

Title:

Comments:

Vapor Phase Molar Fraction	1	
Vapor Phase Mass Fraction	1	
Vapor Phase Volumetric Fraction	1	
Vapor Phase Molar Fraction		
Water	0.3066	
Acetonitrile	0.6934	
Ammonia	2.46823E-16	
Carbon dioxide	0	
Hydrogen cyanide	1.13887E-07	
Liquid Phase (Mixture) Density	NaN	kg/m3
Liquid Phase (Mixture) Molar Weight	NaN	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	0	kJ/kg
Liquid Phase (Mixture) Specific Entropy	0	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	NaN	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	NaN	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	NaN	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	0	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	NaN	
Liquid Phase (Mixture) Mass Flow	0	kg/h
Liquid Phase (Mixture) Molar Flow	0	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0	
Liquid Phase (Mixture) Mass Fraction	0	
Liquid Phase (Mixture) Volumetric Fraction	0	
Liquid Phase Molar Fraction		
Water	NaN	
Acetonitrile	NaN	
Ammonia	NaN	
Carbon dioxide	NaN	
Hydrogen cyanide	NaN	

Value

Object: MSTR-016 **Type:** Material Stream

Property

Details

Title:

Temperature	84	С
Pressure	1.01325	bar
Mass Flow	45.006	kg/h
Molar Flow	1.713	kmol/h
Volumetric Flow	49.5427	m3/h
Mixture Density	0.90843	kg/m3
Mixture Molar Weight	26.2732	kg/kmol
Mixture Specific Enthalpy	85.3707	kJ/kg
Mixture Specific Entropy	0.622712	kJ/[kg.K]
Mixture Molar Enthalpy	2242.96	kJ/kmol
Mixture Molar Entropy	16.3606	kJ/[kmol.K]
Mixture Thermal Conductivity	0.0200459	W/[m.K]
Mixture Molar Fraction		
Water	0.582	
Acetonitrile	0.2603	
Ammonia	0.035	
Carbon dioxide	0.0701	
Hydrogen cyanide	0.0526	
Vapor Phase Density	0.90843	kg/m3
Vapor Phase Molar Weight	26.2732	kg/kmol
Vapor Phase Specific Enthalpy	85.3707	kJ/kg
Vapor Phase Specific Entropy	0.622712	kJ/[kg.K]
Vapor Phase Molar Enthalpy	2242.96	kJ/kmol
Vapor Phase Molar Entropy	16.3606	kJ/[kmol.K]
Vapor Phase Thermal Conductivity	0.0200459	W/[m.K]
Vapor Phase Kinematic Viscosity	1.25831E-05	m2/s
Vapor Phase Dynamic Viscosity	1.14309E-05	Pa.s
Vapor Phase Heat Capacity (Cp)	1.56781	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.27156	
Vapor Phase Mass Flow	45.006	kg/h
Vapor Phase Molar Flow	1.713	kmol/h
Vapor Phase Volumetric Flow	49.5427	m3/h
Vapor Phase Compressibility Factor	0.986911	
Vapor Phase Molar Fraction	1	
Vapor Phase Mass Fraction	1	
Vapor Phase Volumetric Fraction	1	
Vapor Phase Molar Fraction		
Water	0.582	

Details

Title:

Comments:

Acetonitrile	0.2603	
Ammonia	0.035	
Carbon dioxide	0.0701	
Hydrogen cyanide	0.0526	
Liquid Phase (Mixture) Density	NaN	kg/m3
Liquid Phase (Mixture) Molar Weight	NaN	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	0	kJ/kg
Liquid Phase (Mixture) Specific Entropy	0	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	NaN	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	NaN	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	NaN	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	0	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	NaN	
Liquid Phase (Mixture) Mass Flow	0	kg/h
Liquid Phase (Mixture) Molar Flow	0	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0	
Liquid Phase (Mixture) Mass Fraction	0	
Liquid Phase (Mixture) Volumetric Fraction	0	
Liquid Phase Molar Fraction		
Water	NaN	
Acetonitrile	NaN	
Ammonia	NaN	
Carbon dioxide	NaN	
Hydrogen cyanide	NaN	

Object: MSTR-014 **Type:** Material Stream

Property Value

Temperature	86.9641	С
Pressure	1.01325	bar
Mass Flow	10.5513	kg/h
Molar Flow	0.310435	kmol/h
Volumetric Flow	8.97966	m3/h

Details

Title:

Mixture Density	1.17502	kg/m3
Mixture Molar Weight	33.9888	kg/kmol
Mixture Specific Enthalpy	83.2344	kJ/kg
Mixture Specific Entropy	0.478482	kJ/[kg.K]
Mixture Molar Enthalpy	2829.04	kJ/kmol
Mixture Molar Entropy	16.263	kJ/[kmol.K]
Mixture Thermal Conductivity	0.0158077	W/[m.K]
Mixture Molar Fraction		
Water	0.3066	
Acetonitrile	0.6934	
Ammonia	2.46822E-16	
Carbon dioxide	0	
Hydrogen cyanide	1.13887E-07	
Vapor Phase Density	1.17502	kg/m3
Vapor Phase Molar Weight	33.9888	kg/kmol
Vapor Phase Specific Enthalpy	83.2344	kJ/kg
Vapor Phase Specific Entropy	0.478482	kJ/[kg.K]
Vapor Phase Molar Enthalpy	2829.04	kJ/kmol
Vapor Phase Molar Entropy	16.263	kJ/[kmol.K]
Vapor Phase Thermal Conductivity	0.0158077	W/[m.K]
Vapor Phase Kinematic Viscosity	8.56048E-06	m2/s
Vapor Phase Dynamic Viscosity	1.00588E-05	Pa.s
Vapor Phase Heat Capacity (Cp)	1.50331	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.21662	
Vapor Phase Mass Flow	10.5513	kg/h
Vapor Phase Molar Flow	0.310435	kmol/h
Vapor Phase Volumetric Flow	8.97966	m3/h
Vapor Phase Compressibility Factor	0.978938	
Vapor Phase Molar Fraction	1	
Vapor Phase Mass Fraction	1	
Vapor Phase Volumetric Fraction	1	
Vapor Phase Molar Fraction		
Water	0.3066	
Acetonitrile	0.6934	
Ammonia	2.46822E-16	
Carbon dioxide	0	
Hydrogen cyanide	1.13887E-07	
Liquid Phase (Mixture) Density	NaN	kg/m3

Details

Title:

Comments:

Liquid Phase (Mixture) Molar Weight	NaN	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	0	kJ/kg
Liquid Phase (Mixture) Specific Entropy	0	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	NaN	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	NaN	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	NaN	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	0	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	NaN	
Liquid Phase (Mixture) Mass Flow	0	kg/h
Liquid Phase (Mixture) Molar Flow	0	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0	
Liquid Phase (Mixture) Mass Fraction	0	
Liquid Phase (Mixture) Volumetric Fraction	0	
Liquid Phase Molar Fraction		
Water	NaN	
Acetonitrile	NaN	
Ammonia	NaN	
Carbon dioxide	NaN	
Hydrogen cyanide	NaN	

Object: MSTR-006 **Type:** Material Stream

Property Value

Temperature	-70.2884	С	
Pressure	1.01325	bar	
Mass Flow	11.7147	kg/h	
Molar Flow	0.3426	kmol/h	
Volumetric Flow	0.0168293	m3/h	
Mixture Density	696.091	kg/m3	
Mixture Molar Weight	34.1936	kg/kmol	
Mixture Specific Enthalpy	-914.691	kJ/kg	
Mixture Specific Entropy	-3.13088	kJ/[kg.K]	
Mixture Molar Enthalpy	-31276.6	kJ/kmol	

Details

Title:

Mixture Molar Entropy	-107.056	kJ/[kmol.K]
Mixture Thermal Conductivity	0.275157	W/[m.K]
Mixture Molar Fraction		
Water	9.95189E-05	
Acetonitrile	0.211401	
Ammonia	0.175	
Carbon dioxide	0.3505	
Hydrogen cyanide	0.263	
Vapor Phase Density	2.64256	kg/m3
Vapor Phase Molar Weight	43.247	kg/kmol
Vapor Phase Specific Enthalpy	-78.4181	kJ/kg
Vapor Phase Specific Entropy	-0.258689	kJ/[kg.K]
Vapor Phase Molar Enthalpy	-3391.35	kJ/kmol
Vapor Phase Molar Entropy	-11.1875	kJ/[kmol.K]
Vapor Phase Thermal Conductivity	0.00972601	W/[m.K]
Vapor Phase Kinematic Viscosity	3.97104E-06	m2/s
Vapor Phase Dynamic Viscosity	1.04937E-05	Pa.s
Vapor Phase Heat Capacity (Cp)	0.7673	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.36856	
Vapor Phase Mass Flow	3.35562E-06	kg/h
Vapor Phase Molar Flow	7.75919E-08	kmol/h
Vapor Phase Volumetric Flow	1.26983E-06	m3/h
Vapor Phase Compressibility Factor	0.98319	
Vapor Phase Molar Fraction	2.2648E-07	
Vapor Phase Mass Fraction	2.86445E-07	
Vapor Phase Volumetric Fraction	7.54538E-05	
Vapor Phase Molar Fraction		
Water	4.11395E-08	
Acetonitrile	1.54172E-05	
Ammonia	0.0279414	
Carbon dioxide	0.971537	
Hydrogen cyanide	0.000505855	
Liquid Phase (Mixture) Density	696.143	kg/m3
Liquid Phase (Mixture) Molar Weight	34.1936	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	-914.692	kJ/kg
Liquid Phase (Mixture) Specific Entropy	-3.13088	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	-31276.6	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	-107.056	kJ/[kmol.K]

Details

Title:

Comments:

Liquid Phase (Mixture) Thermal Conductivity	0.275157	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	1.3618E-05	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0.00948008	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	2.04025	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	1.31485	
Liquid Phase (Mixture) Mass Flow	11.7147	kg/h
Liquid Phase (Mixture) Molar Flow	0.3426	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0.016828	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	1	
Liquid Phase (Mixture) Mass Fraction	1	
Liquid Phase (Mixture) Volumetric Fraction	0.999925	
Liquid Phase Molar Fraction		
Water	9.95189E-05	
Acetonitrile	0.211401	
Ammonia	0.175	
Carbon dioxide	0.3505	
Hydrogen cyanide	0.263	

Object: MSTR-005

Property	Value	
Temperature	87.813	С
Pressure	1.01325	bar
Mass Flow	16.9097	kg/h
Molar Flow	0.5139	kmol/h
Volumetric Flow	14.9166	m3/h
Mixture Density	1.13362	kg/m3
Mixture Molar Weight	32.9047	kg/kmol
Mixture Specific Enthalpy	85.6369	kJ/kg
Mixture Specific Entropy	0.493452	kJ/[kg.K]
Mixture Molar Enthalpy	2817.86	kJ/kmol
Mixture Molar Entropy	16.2369	kJ/[kmol.K]
Mixture Thermal Conductivity	0.0163727	W/[m.K]
Mixture Molar Fraction		
Water	0.353657	
Acetonitrile	0.646343	

Details

Title:

Ammonia	1.491E-16	
Carbon dioxide	7.5098E-22	
Hydrogen cyanide	6.90704E-08	
Vapor Phase Density	1.13362	kg/m3
Vapor Phase Molar Weight	32.9047	kg/kmol
Vapor Phase Specific Enthalpy	85.6369	kJ/kg
Vapor Phase Specific Entropy	0.493452	kJ/[kg.K]
Vapor Phase Molar Enthalpy	2817.86	kJ/kmol
Vapor Phase Molar Entropy	16.2369	kJ/[kmol.K]
Vapor Phase Thermal Conductivity	0.0163727	W/[m.K]
Vapor Phase Kinematic Viscosity	9.04295E-06	m2/s
Vapor Phase Dynamic Viscosity	1.02513E-05	Pa.s
Vapor Phase Heat Capacity (Cp)	1.51936	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.22122	
Vapor Phase Mass Flow	16.9097	kg/h
Vapor Phase Molar Flow	0.5139	kmol/h
Vapor Phase Volumetric Flow	14.9166	m3/h
Vapor Phase Compressibility Factor	0.98002	
Vapor Phase Molar Fraction	1	
Vapor Phase Mass Fraction	1	
Vapor Phase Volumetric Fraction	1	
Vapor Phase Molar Fraction		
Water	0.353657	
Acetonitrile	0.646343	
Ammonia	1.491E-16	
Carbon dioxide	7.5098E-22	
Hydrogen cyanide	6.90704E-08	
Liquid Phase (Mixture) Density	NaN	kg/m3
Liquid Phase (Mixture) Molar Weight	NaN	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	0	kJ/kg
Liquid Phase (Mixture) Specific Entropy	0	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	NaN	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	NaN	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	NaN	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	0	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	NaN	

Details

Title:

Comments:

Liquid Phase (Mixture) Mass Flow	0	kg/h
Liquid Phase (Mixture) Molar Flow	0	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0	
Liquid Phase (Mixture) Mass Fraction	0	
Liquid Phase (Mixture) Volumetric Fraction	0	
Liquid Phase Molar Fraction		
Water	NaN	
Acetonitrile	NaN	
Ammonia	NaN	
Carbon dioxide	NaN	
Hydrogen cyanide	NaN	

Object: MSTR-003 **Type:** Material Stream

Property Value

Temperature	98.897	С
Pressure	1.01325	bar
Mass Flow	16.3816	kg/h
Molar Flow	0.8565	kmol/h
Volumetric Flow	14.5715	m3/h
Mixture Density	1.12422	kg/m3
Mixture Molar Weight	19.1262	kg/kmol
Mixture Specific Enthalpy	-832.466	kJ/kg
Mixture Specific Entropy	-2.12772	kJ/[kg.K]
Mixture Molar Enthalpy	-15921.9	kJ/kmol
Mixture Molar Entropy	-40.6952	kJ/[kmol.K]
Mixture Thermal Conductivity	0.310806	W/[m.K]
Mixture Molar Fraction		
Water	0.951766	
Acetonitrile	0.048234	
Ammonia	2.17948E-19	
Carbon dioxide	3.24209E-20	
Hydrogen cyanide	2.07173E-10	
Vapor Phase Density	0.661305	kg/m3
Vapor Phase Molar Weight	19.9902	kg/kmol

Details

Title:

Vapor Phase Specific Enthalpy	127.847	kJ/kg
Vapor Phase Specific Entropy	0.468669	kJ/[kg.K]
Vapor Phase Molar Enthalpy	2555.69	kJ/kmol
Vapor Phase Molar Entropy	9.3688	kJ/[kmol.K]
Vapor Phase Thermal Conductivity	0.0232966	W/[m.K]
Vapor Phase Kinematic Viscosity	1.90108E-05	m2/s
Vapor Phase Dynamic Viscosity	1.25719E-05	Pa.s
Vapor Phase Heat Capacity (Cp)	1.82484	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.31174	
Vapor Phase Mass Flow	9.63061	kg/h
Vapor Phase Molar Flow	0.481766	kmol/h
Vapor Phase Volumetric Flow	14.563	m3/h
Vapor Phase Compressibility Factor	0.990204	
Vapor Phase Molar Fraction	0.562482	
Vapor Phase Mass Fraction	0.587893	
Vapor Phase Volumetric Fraction	0.999422	
Vapor Phase Molar Fraction		
Water	0.914259	
Acetonitrile	0.0857413	
Ammonia	3.65793E-19	
Carbon dioxide	5.762E-20	
Hydrogen cyanide	3.68273E-10	
Liquid Phase (Mixture) Density	801.32	kg/m3
Liquid Phase (Mixture) Molar Weight	18.0153	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	-2202.41	kJ/kg
Liquid Phase (Mixture) Specific Entropy	-5.83163	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	-39677.1	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	-105.059	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0.680434	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	1.4461E-07	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0.000281187	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	4.01761	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	1.40814	
Liquid Phase (Mixture) Mass Flow	6.75095	kg/h
Liquid Phase (Mixture) Molar Flow	0.374734	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0.00842479	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0.437518	

Details

Title:

Comments:

Liquid Phase (Mixture) Mass Fraction	0.412107
Liquid Phase (Mixture) Volumetric Fraction	0.00057817
Liquid Phase Molar Fraction	
Water	0.999986
Acetonitrile	1.37936E-05
Ammonia	2.78757E-20
Carbon dioxide	2.43461E-23
Hydrogen cyanide	5.94551E-14

Object: MSTR-002

Temperature -55,4899 C Pressure 1,01325 bar Mass Flow 28,6245 kg/h Molar Flow 0,0471797 m3/h Volumetric Flow 0,0471797 m3/h Mixture Density 606,712 kg/m3 Mixture Molar Weight 33,4203 kg/kmol Mixture Specific Enthalpy -1219,31 kJ/kg Mixture Specific Entropy -36,445 kJ/kgmol.KJ Mixture Molar Entropy -40749.7 kJ/kmol.KJ Mixture Molar Entropy -121,932 kJ/kmol.KJ Mixture Molar Fraction 0,237272 W/m.KJ Water 0,212234	Property	Value	
Mass Flow 28.6245 kg/h Molar Flow 0.8565 kmol/h Volumetric Flow 0.0471797 m3/h Mixture Density 606.712 kg/m3 Mixture Molar Weight 33.4203 kg/kmol Mixture Specific Enthalpy -1219.31 kJ/kg Mixture Specific Entropy -3.6845 kJ/kmol Mixture Molar Enthalpy -40749.7 kJ/kmol Mixture Molar Entropy -121.932 kJ/kmol.K] Mixture Thermal Conductivity 0.237272 W/[m.K] Mater 0.212234	Temperature	-55.4899	С
Molar Flow 0.8665 kmol/h Volumetric Flow 0.0471797 m3/h Mixture Density 606.712 kg/m3 Mixture Molar Weight 33.4203 kg/kmol Mixture Specific Enthalpy -1219.31 kJ/kg Mixture Specific Entropy -3.64845 kJ/kg,k] Mixture Molar Enthalpy -40749.7 kJ/kmol.K] Mixture Molar Entropy -121.932 kJ/kmol.K] Mixture Thermal Conductivity 0.23272 W/[m.k] Mixture Molar Fraction Water 0.212234	Pressure	1.01325	bar
Volumetric Flow 0.0471797 m3/h Mixture Density 606.712 kg/m3 Mixture Molar Weight 33.4203 kg/kmol Mixture Specific Enthalpy -1219.31 kJ/kg Mixture Specific Entropy -3.64845 kJ/kg,k] Mixture Molar Enthalpy -40749.7 kJ/kmol.K] Mixture Molar Entropy -121.932 kJ/kmol.K] Mixture Thermal Conductivity 0.23272 W/[m.k] Mixture Molar Fraction V V Water 0.212234 V Acetonitrile 0.472366 V Ammonia 0.07 V Carbon dioxide 0.1402 V Hydrogen cyanide 0.1052 V Vapor Phase Density 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Molar Enthalpy 0 kJ/kg Vapor Phase Molar Enthalpy 0 kJ/kg Vapor Phase Molar Enthalpy 0 kJ/kg <th>Mass Flow</th> <th>28.6245</th> <th>kg/h</th>	Mass Flow	28.6245	kg/h
Mixture Density606.712kg/m3Mixture Molar Weight33.4203kg/kmolMixture Specific Enthalpy-1219.31kJ/kgMixture Specific Entropy-3.64845kJ/kg.K]Mixture Molar Enthalpy-40749.7kJ/kmolMixture Molar Entropy-121.932kJ/kmol.K]Mixture Thermal Conductivity0.237272W/m.K]Mixture Molar FractionWater0.212234Acetonitrile0.472366	Molar Flow	0.8565	kmol/h
Mixture Molar Weight 33.4203 kg/kmol Mixture Specific Enthalpy -1219.31 kJ/kg Mixture Specific Entropy -3.64845 kJ/[kg. K] Mixture Molar Enthalpy -40749.7 kJ/kmol Mixture Molar Entropy -121.932 kJ/[kmol.K] Mixture Thermal Conductivity 0.237272 W/[m.K] Mixture Molar Fraction 0.212234	Volumetric Flow	0.0471797	m3/h
Mixture Specific Enthalpy -1219.31 kJ/kg Mixture Specific Entropy -3.64845 kJ/(kg.K) Mixture Molar Enthalpy -40749.7 kJ/kmol.K] Mixture Molar Entropy -121.932 kJ/(kmol.K) Mixture Thermal Conductivity 0.237272 W/(m.K) Mixture Molar Fraction Water 0.212234 Acetonitrile 0.472366	Mixture Density	606.712	kg/m3
Mixture Specific Entropy -3.64845 kJ/[kg.K] Mixture Molar Entralpy -40749.7 kJ/kmol Mixture Molar Entropy -121.932 kJ/[kmol.K] Mixture Thermal Conductivity 0.237272 W/[m.K] Mixture Molar Fraction Water 0.212234 Acetonitrile 0.472366	Mixture Molar Weight	33.4203	kg/kmol
Mixture Molar Enthalpy -40749.7 kJ/kmol Mixture Molar Entropy -121.932 kJ/[kmol.K] Mixture Thermal Conductivity 0.237272 W/[m.K] Mixture Molar Fraction Water 0.212234 Cactonitrile 0.472366 Ammonia 0.07 Carbon dioxide 0.1402 Hydrogen cyanide 0.1052 Vapor Phase Density 0 kg/m3 Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Molar Enthalpy 0 kJ/[kg.K] Vapor Phase Molar Enthalpy 0 kJ/[kmol.K]	Mixture Specific Enthalpy	-1219.31	kJ/kg
Mixture Molar Entropy -121.932 kJ/[kmol.K] Mixture Thermal Conductivity 0.237272 W/[m.K] Mixture Molar Fraction Water 0.212234 Acetonitrile 0.472366	Mixture Specific Entropy	-3.64845	kJ/[kg.K]
Mixture Thermal Conductivity 0.237272 W/[m.K] Mixture Molar Fraction Water 0.212234 Acetonitrile 0.472366 Ammonia 0.07 Carbon dioxide 0.1402 Hydrogen cyanide 0.1052 Vapor Phase Density 0 kg/m3 Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Molar Enthalpy 0 kJ/[kg.K] Vapor Phase Molar Enthalpy 0 kJ/[kmol.K]	Mixture Molar Enthalpy	-40749.7	kJ/kmol
Mixture Molar Fraction Water 0.212234 Acetonitrile 0.472366 Ammonia 0.07 Carbon dioxide 0.1402 Hydrogen cyanide 0.1052 Vapor Phase Density 0 kg/m3 Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Specific Entropy 0 kJ/kg.K] Vapor Phase Molar Enthalpy 0 kJ/kmol Vapor Phase Molar Enthalpy 0 kJ/kmol	Mixture Molar Entropy	-121.932	kJ/[kmol.K]
Water 0.212234 Acetonitrile 0.472366 Ammonia 0.07 Carbon dioxide 0.1402 Hydrogen cyanide 0.1052 Vapor Phase Density 0 kg/m3 Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Specific Entropy 0 kJ/[kg.K] Vapor Phase Molar Entropy 0 kJ/[kmol.K] Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Mixture Thermal Conductivity	0.237272	W/[m.K]
Acetonitrile 0.472366 Ammonia 0.07 Carbon dioxide 0.1402 Hydrogen cyanide 0.1052 Vapor Phase Density 0 kg/m3 Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Molar Enthalpy 0 kJ/[kg.K] Vapor Phase Molar Enthalpy 0 kJ/[kmol.K] Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Mixture Molar Fraction		
Ammonia 0.07 Carbon dioxide 0.1402 Hydrogen cyanide 0.1052 Vapor Phase Density 0 kg/m3 Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Specific Entropy 0 kJ/[kg.K] Vapor Phase Molar Entropy 0 kJ/kmol Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Water	0.212234	
Carbon dioxide 0.1402 Hydrogen cyanide 0.1052 Vapor Phase Density 0 kg/m3 Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Specific Entropy 0 kJ/[kg.K] Vapor Phase Molar Enthalpy 0 kJ/kmol Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Acetonitrile	0.472366	
Hydrogen cyanide Vapor Phase Density O kg/m3 Vapor Phase Molar Weight O kg/kmol Vapor Phase Specific Enthalpy O kJ/kg Vapor Phase Specific Entropy O kJ/[kg.K] Vapor Phase Molar Enthalpy O kJ/[kmol.K]	Ammonia	0.07	
Vapor Phase Density 0 kg/m3 Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Specific Entropy 0 kJ/[kg.K] Vapor Phase Molar Enthalpy 0 kJ/kmol Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Carbon dioxide	0.1402	
Vapor Phase Molar Weight 0 kg/kmol Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Specific Entropy 0 kJ/[kg.K] Vapor Phase Molar Enthalpy 0 kJ/kmol Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Hydrogen cyanide	0.1052	
Vapor Phase Specific Enthalpy 0 kJ/kg Vapor Phase Specific Entropy 0 kJ/[kg.K] Vapor Phase Molar Enthalpy 0 kJ/kmol Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Vapor Phase Density	0	kg/m3
Vapor Phase Specific Entropy 0 kJ/[kg.K] Vapor Phase Molar Enthalpy 0 kJ/kmol Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Vapor Phase Molar Weight	0	kg/kmol
Vapor Phase Molar Enthalpy 0 kJ/kmol Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Vapor Phase Specific Enthalpy	0	kJ/kg
Vapor Phase Molar Entropy 0 kJ/[kmol.K]	Vapor Phase Specific Entropy	0	kJ/[kg.K]
	Vapor Phase Molar Enthalpy	0	kJ/kmol
Vapor Phase Thermal Conductivity 0 W/[m.K]	Vapor Phase Molar Entropy	0	kJ/[kmol.K]
	Vapor Phase Thermal Conductivity	0	W/[m.K]

Details

Title:

	•	0/
Vapor Phase Kinematic Viscosity	0	m2/s
Vapor Phase Dynamic Viscosity	0	Pa.s
Vapor Phase Heat Capacity (Cp)	0	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv)	NaN	
Vapor Phase Mass Flow	0	kg/h
Vapor Phase Molar Flow	0	kmol/h
Vapor Phase Volumetric Flow	0	m3/h
Vapor Phase Compressibility Factor	0	
Vapor Phase Molar Fraction	0	
Vapor Phase Mass Fraction	0	
Vapor Phase Volumetric Fraction	0	
Vapor Phase Molar Fraction		
Water	0	
Acetonitrile	0	
Ammonia	0	
Carbon dioxide	0	
Hydrogen cyanide	0	
Liquid Phase (Mixture) Density	606.712	kg/m3
Liquid Phase (Mixture) Molar Weight	33.4203	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	-1219.31	kJ/kg
Liquid Phase (Mixture) Specific Entropy	-3.64845	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	-40749.7	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	-121.932	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0.237272	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	4.84986E-06	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0.00294247	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	2.26658	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	1.23875	
Liquid Phase (Mixture) Mass Flow	28.6245	kg/h
Liquid Phase (Mixture) Molar Flow	0.8565	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0.0471797	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	1	
Liquid Phase (Mixture) Mass Fraction	1	
Liquid Phase (Mixture) Volumetric Fraction	1	
Liquid Phase Molar Fraction		
Water	0.212234	
Acetonitrile	0.472366	

Details

Title:

Comments:

Ammonia	0.07
Carbon dioxide	0.1402
Hydrogen cyanide	0.1052

Object: MSTR-000

Property	Value	
Temperature	84.1	С
Pressure	1.01325	bar
Mass Flow	45.006	kg/h
Molar Flow	1.713	kmol/h
Volumetric Flow	49.557	m3/h
Mixture Density	0.908166	kg/m3
Mixture Molar Weight	26.2732	kg/kmol
Mixture Specific Enthalpy	85.5276	kJ/kg
Mixture Specific Entropy	0.623151	kJ/[kg.K]
Mixture Molar Enthalpy	2247.08	kJ/kmol
Mixture Molar Entropy	16.3722	kJ/[kmol.K]
Mixture Thermal Conductivity	0.020054	W/[m.K]
Mixture Molar Fraction		
Water	0.582	
Acetonitrile	0.2603	
Ammonia	0.035	
Carbon dioxide	0.0701	
Hydrogen cyanide	0.0526	
Vapor Phase Density	0.908166	kg/m3
Vapor Phase Molar Weight	26.2732	kg/kmol
Vapor Phase Specific Enthalpy	85.5276	kJ/kg
Vapor Phase Specific Entropy	0.623151	kJ/[kg.K]
Vapor Phase Molar Enthalpy	2247.08	kJ/kmol
Vapor Phase Molar Entropy	16.3722	kJ/[kmol.K]
Vapor Phase Thermal Conductivity	0.020054	W/[m.K]
Vapor Phase Kinematic Viscosity	1.25905E-05	m2/s
Vapor Phase Dynamic Viscosity	1.14342E-05	Pa.s
Vapor Phase Heat Capacity (Cp)	1.56792	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.27152	
Vapor Phase Mass Flow	45.006	kg/h

Details

Title:

Comments:

Vapor Phase Molar Flow	1.713	kmol/h
Vapor Phase Volumetric Flow	49.557	m3/h
Vapor Phase Compressibility Factor	0.986921	
Vapor Phase Molar Fraction	1	
Vapor Phase Mass Fraction	1	
Vapor Phase Volumetric Fraction	1	
Vapor Phase Molar Fraction		
Water	0.582	
Acetonitrile	0.2603	
Ammonia	0.035	
Carbon dioxide	0.0701	
Hydrogen cyanide	0.0526	
Liquid Phase (Mixture) Density	NaN	kg/m3
Liquid Phase (Mixture) Molar Weight	NaN	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	0	kJ/kg
Liquid Phase (Mixture) Specific Entropy	0	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	NaN	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	NaN	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	NaN	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	0	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	NaN	
Liquid Phase (Mixture) Mass Flow	0	kg/h
Liquid Phase (Mixture) Molar Flow	0	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0	
Liquid Phase (Mixture) Mass Fraction	0	
Liquid Phase (Mixture) Volumetric Fraction	0	
Liquid Phase Molar Fraction		
Water	NaN	
Acetonitrile	NaN	
Ammonia	NaN	
Carbon dioxide	NaN	
Hydrogen cyanide	NaN	

Object: MSTR-008

Details

Title:

Tensure 392.501 C Pressure 7 bar Mass Flow 16.9997 kg/h Molar Flow 0.5139 kmo/h Volumetric Flow 3.98016 m3/h Mixture Density 4.24851 kg/m3 Mixture Specific Enthalpy 613.746 kJ/kg Mixture Specific Enthalpy 1.06065 kJ/kg KJ Mixture Specific Enthalpy 2.0995.1 kJ/kmol Mixture Molar Entropy 3.49003 kJ/kmol Mixture Molar Entropy 3.49003 kJ/kmol Mixture Molar Fraction W/m.KJ Water 0.353657 Acetonitrile 0.86343 Ammonia 1.491E-16 G Carbon dioxide 7.509E-22 Hydrogen cyanide 4.24851 kg/m3 Vapor Phase Density 4.24851 kg/mol kg/mol Vapor Phase Specific Enthalpy 3.29047 kg/kmol kg/mol Vapor Phase Specific Enthalpy 3.29047 kg/kmol kg/mol Vapor Phase Molar Entropy 3.49			
Mass Flow 16.9097 kg/h Molar Flow 0.5139 kmol/h Volumetric Flow 3.98016 m3/h Mixture Donsity 4.24851 kg/m3 Mixture Molar Weight 32.9047 kg/kmol Mixture Specific Enthalpy 10.6065 kJ/kg k] Mixture Molar Enthalpy 20195.1 kJ/kmol Mixture Molar Entropy 34.9003 kJ/kmol K] Mixture Molar Fraction W/m K] Water 0.353657 VIII Acetonitrio 0.846343 VIII Anmonia 1.491E-16 VIII Carbon dioxide 7.5098E-22 VIII Hydrogen cyanide 6.90704E-08 VIII Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 4.24851 kg/kmol Vapor Phase Specific Enthalpy 1.06065 kJ/kg k] Vapor Phase Molar Entropy 3.9003 kJ/kg k] Vapor Phase Molar Entropy 3.9003 kJ/kg k] Vapor Phase Molar Entropy 3.49003	Temperature	392.501	С
Molar Flow 0.5139 kmol/h Volumetric Flow 3.98016 m3/h Mixture Density 4.24851 kg/m3 Mixture Molar Weight 32.9047 kg/kmol Mixture Specific Enthalpy 613.746 kJ/kg k] Mixture Molar Entropy 20195.1 kJ/kmol Mixture Molar Entropy 34.9003 kJ/[kmol.K] Mixture Molar Entropy 0.477059 W/[m.k] Mixture Molar Fraction ws. Val/[kmol.K] Water 0.353657 Val Acetonitrile 0.646343 Val Acmonia 1.4916-16 Val Carbon dioxide 7.5098E-22 Val Vapor Phase Density 4.24851 kg/m3 Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg Vapor Phase Specific Enthalpy 1.6065 kJ/kg Vapor Phase Molar Entropy 34.9003 kJ/kgmol Vapor Phase Molar Entropy 34.9003 kJ/kgmol Vapor Phase Molar Entropy	Pressure	7	bar
Volumetric Flow 3.98016 m3/h Mixture Density 4.24851 kg/m3 Mixture Molar Weight 32.9047 kg/kmol Mixture Specific Enthalpy 613.746 kJ/kg Mixture Specific Entropy 1.06065 kJ/kg KJ Mixture Molar Enthalpy 20195.1 kJ/kmol KJ Mixture Molar Entropy 34.9003 kJ/kmol KJ Mixture Molar Faction W/m.KJ Water 0.353657 V Acetonitrile 0.846343 V Acetonidoxide 7.598E-22 V Hydrogen cyanide 6.90704E-08 kg/m3 Vapor Phase Density 4.24851 kg/m3 Vapor Phase Specific Enthalpy 2.32,947 kJ/kg Vapor Phase Specific Enthalpy 1.37.46 kJ/kg Vapor Phase Molar Enthalpy 2.0195.1 kJ/kgmol Vapor Phase Molar Enthalpy 2.0195.1 kJ/kmol KJ Vapor Phase Molar Enthalpy 2.0195.1 kJ/kmol KJ Vapor Phase Molar Enthalpy 2.0195.1 kJ/kmol KJ Vapor Ph	Mass Flow	16.9097	kg/h
Mixture Density 4.24851 kg/m3 Mixture Molar Weight 32.9047 kg/kmol Mixture Specific Entropy 1.06065 kJ/kg.K] Mixture Specific Entropy 1.06065 kJ/kg.K] Mixture Molar Entrhalpy 20195.1 kJ/kmol.K] Mixture Molar Entropy 34.9003 kJ/[kmol.K] Mixture Molar Faction W/m.K] Water 0.353657 V Acetonitrile 0.846343 V Armonia 1.491E-16 V Carbon dioxide 7.5098E-22 V Hydrogen cyanide 6.90704E-08 kg/m3 Vapor Phase Molar Weight 32.9047 kg/m0 Vapor Phase Molar Weight 32.9047 kJ/kg Vapor Phase Specific Entropy 1.06065 kJ/kg.K] Vapor Phase Molar Entralpy 20195.1 kJ/kmol.K] Vapor Phase Molar Entropy 34.9003 kJ/kmol.K] Vapor Phase Minamitic Viscosity 4.94058E-06 m2/s Vapor Phase Kinematic Viscosity 4.94058E-06 m2/s Vapor P	Molar Flow	0.5139	kmol/h
Mixture Molar Weight 32.9047 kg/kmol Mixture Specific Enthalpy 613.746 kJ/kg K] Mixture Specific Entropy 1.06065 kJ/kg K] Mixture Molar Enthalpy 20195.1 kJ/kmol Mixture Molar Entropy 34.9003 kJ/kmol.KJ Mixture Molar Entropy 34.9003 kJ/kmol.KJ Mixture Molar Fraction W/m.KJ Water 0.353657 Secondary Acetonitrile 0.846343 Secondary Acetonitrile 0.846343 Secondary Armonia 1.491E-16 Secondary Carbon dioxide 7.5098E-22 Secondary Hydrogen cyanide 6.90704E-08 Kg/kmol Vapor Phase Density 4.24851 kg/kmol Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg.KJ Vapor Phase Specific Entropy 1.06065 kJ/kg.KJ Vapor Phase Molar Entropy 34.9003 kJ/kmol Vapor Phase Molar Entropy 34.9003 kJ/kmol	Volumetric Flow	3.98016	m3/h
Mixture Specific Enthalpy 613.746 kJ/kg Mixture Specific Entropy 1.06065 kJ/kg k] Mixture Molar Enthalpy 20195.1 kJ/kmol Mixture Molar Entropy 34.9003 kJ/kmol.KJ Mixture Molar Entropy 34.9003 kJ/kmol.KJ Mixture Molar Fraction W/m.KJ Water 0.353657	Mixture Density	4.24851	kg/m3
Mixture Specific Entropy 1.06065 kJ/[kg.k²] Mixture Molar Enthalpy 20195.1 kJ/kmol Mixture Molar Entropy 34.9003 kJ/[kmol.K²] Mixture Thermal Conductivity 0.0477059 W/[m.K²] Mixture Molar Fraction Water 0.353657 Acetonitrile 0.646343	Mixture Molar Weight	32.9047	kg/kmol
Mixture Molar Enthalpy 20195.1 kJ/kmol Mixture Molar Entropy 34.9003 kJ/kmol.kZ Mixture Thermal Conductivity 0.0477059 W/[m.K] Mixture Molar Fraction Water 0.353657 Acetonitrile 0.646343	Mixture Specific Enthalpy	613.746	kJ/kg
Mixture Molar Entropy 34.903 kJ/[kmol.K] Mixture Thermal Conductivity 0.0477059 W/[m.K] Mixture Molar Fraction	Mixture Specific Entropy	1.06065	kJ/[kg.K]
Mixture Thermal Conductivity 0.0477059 W/[m.K] Mixture Molar Fraction 0.353657	Mixture Molar Enthalpy	20195.1	kJ/kmol
Mixture Molar Fraction 0.353657 Acetonitrile 0.646343 Ammonia 1.491E-16 Carbon dioxide 7.5098E-22 Hydrogen cyanide 6.90704E-08 Vapor Phase Density 4.24851 kg/m3 Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg.K] Vapor Phase Specific Entropy 1.06065 kJ/kg.K] Vapor Phase Molar Enthalpy 20195.1 kJ/kmol.K] Vapor Phase Molar Entropy 34.9003 kJ/kmol.K] Vapor Phase Molar Entropy 0.0477059 W/[m.K] Vapor Phase Kinematic Viscosity 4.49058E-06 m2/s Vapor Phase Bet Capacity (Cp) 2.02735 kJ/kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.16115 Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Compressibility Factor 0.979632 ***	Mixture Molar Entropy	34.9003	kJ/[kmol.K]
Water 0.353657 Acetonitrile 0.646343 Ammonia 1.491E-16 Carbon dioxide 7.5098E-22 Hydrogen cyanide 6.90704E-08 Vapor Phase Density 4.24851 kg/m3 Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg Vapor Phase Specific Entropy 1.06065 kJ/kmol Vapor Phase Molar Enthalpy 20195.1 kJ/kmol Vapor Phase Molar Entropy 34.9003 kJ/kmol.K] Vapor Phase Molar Entropy 34.9003 kJ/kmol.K] Vapor Phase Thermal Conductivity 0.0477059 W/m.K.] Vapor Phase Kinematic Viscosity 4.49058E-06 m2/s Vapor Phase Heat Capacity (Cp) 2.02735 kJ/kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.16115 Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Compressibility Factor 0.979632	Mixture Thermal Conductivity	0.0477059	W/[m.K]
Acetonitrile 0.646343 Ammonia 1.491E-16 Carbon dioxide 7.5098E-22 Hydrogen cyanide 6.90704E-08 Vapor Phase Density 4.24851 kg/rm3 Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg Vapor Phase Specific Entropy 1.06065 kJ/kg.K] Vapor Phase Molar Enthalpy 20195.1 kJ/kmol Vapor Phase Molar Entropy 34.9003 kJ/kmol.K] Vapor Phase Thermal Conductivity 0.0477059 W/[m.K] Vapor Phase Kinematic Viscosity 4.49058E-06 m2/s Vapor Phase Dynamic Viscosity 4.90788E-05 pa.s Vapor Phase Heat Capacity (Cp) 2.02735 kJ/[kg.K] Vapor Phase Mass Flow 1.69097 kg/h Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Compressibility Factor 0.979632	Mixture Molar Fraction		
Ammonia 1.491E-16 Carbon dloxide 7.5098E-22 Hydrogen cyanide 6.90704E-08 Vapor Phase Density 4.24851 kg/m3 Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg Vapor Phase Specific Entropy 1.06065 kJ/[kg.K] Vapor Phase Molar Enthalpy 20195.1 kJ/kmol Vapor Phase Molar Entropy 34.9003 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0477059 W/[m.K] Vapor Phase Kinematic Viscosity 4.49058E-06 m2/s Vapor Phase Dynamic Viscosity 1.90783E-05 Pa.s Vapor Phase Heat Capacity (Cp) 2.02735 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.16115 Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Compressibility Factor 0.979632	Water	0.353657	
Carbon dioxide 7.5098E-22 Hydrogen cyanide 6.90704E-08 Vapor Phase Density 4.24851 kg/m3 Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg Vapor Phase Specific Entropy 1.06065 kJ/[kg.K] Vapor Phase Molar Enthalpy 20195.1 kJ/kmol Vapor Phase Molar Entropy 34.9003 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0477059 W/[m.K] Vapor Phase Kinematic Viscosity 4.49058E-06 m2/s Vapor Phase Dynamic Viscosity 1.90783E-05 Pa.s Vapor Phase Heat Capacity (Cp) 2.02735 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.16115 Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Volumetric Flow 3.98016 m3/h Vapor Phase Compressibility Factor 0.979632	Acetonitrile	0.646343	
Hydrogen cyanide 6.90704E-08 Vapor Phase Density 4.24851 kg/m3 Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg Vapor Phase Specific Entropy 1.06065 kJ/[kg, K] Vapor Phase Molar Enthalpy 20195.1 kJ/kmol Vapor Phase Molar Entropy 34.9003 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0477059 W/[m.K] Vapor Phase Kinematic Viscosity 4.49058E-06 m2/s Vapor Phase Dynamic Viscosity 1.90783E-05 Pa.s Vapor Phase Heat Capacity (Cp) 2.02735 kJ/[kg,K] Vapor Phase Mass Flow 16.9097 kg/h Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Volumetric Flow 3.98016 m3/h Vapor Phase Compressibility Factor 0.979632	Ammonia	1.491E-16	
Vapor Phase Density 4.24851 kg/m3 Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg Vapor Phase Specific Entropy 1.06065 kJ/(kg.K] Vapor Phase Molar Enthalpy 20195.1 kJ/kmol Vapor Phase Molar Entropy 34.9003 kJ/(kmol.K] Vapor Phase Thermal Conductivity 0.0477059 W/[m.K] Vapor Phase Kinematic Viscosity 4.49058E-06 m2/s Vapor Phase Dynamic Viscosity 1.90783E-05 Pa.s Vapor Phase Heat Capacity (Cp) 2.02735 kJ/(kg.K) Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.16115 Vapor Phase Molar Flow 16.9097 kg/h Vapor Phase Wolumetric Flow 0.5139 kmol/h Vapor Phase Compressibility Factor 0.979632	Carbon dioxide	7.5098E-22	
Vapor Phase Molar Weight 32.9047 kg/kmol Vapor Phase Specific Enthalpy 613.746 kJ/kg Vapor Phase Specific Entropy 1.06065 kJ/[kg.K] Vapor Phase Molar Enthalpy 20195.1 kJ/kmol Vapor Phase Molar Entropy 34.9003 kJ/[kmol.K] Vapor Phase Thermal Conductivity 0.0477059 W/[m.K] Vapor Phase Kinematic Viscosity 4.49058E-06 m2/s Vapor Phase Dynamic Viscosity 1.90783E-05 Pa.s Vapor Phase Heat Capacity (Cp) 2.02735 kJ/[kg.K] Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.16115 Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Volumetric Flow 3.98016 m3/h Vapor Phase Compressibility Factor 0.979632	Hydrogen cyanide	6.90704E-08	
Vapor Phase Specific Enthalpy613.746kJ/kgVapor Phase Specific Entropy1.06065kJ/[kg.K]Vapor Phase Molar Enthalpy20195.1kJ/[kmol.K]Vapor Phase Molar Entropy34.9003kJ/[kmol.K]Vapor Phase Thermal Conductivity0.0477059W/[m.K]Vapor Phase Kinematic Viscosity4.49058E-06m2/sVapor Phase Dynamic Viscosity1.90783E-05Pa.sVapor Phase Heat Capacity (Cp)2.02735kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.16115Vapor Phase Molar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Density	4.24851	kg/m3
Vapor Phase Specific Entropy1.06065kJ/[kg.K]Vapor Phase Molar Enthalpy20195.1kJ/[kmol.K]Vapor Phase Molar Entropy34.9003kJ/[kmol.K]Vapor Phase Thermal Conductivity0.0477059W/[m.K]Vapor Phase Kinematic Viscosity4.49058E-06m2/sVapor Phase Dynamic Viscosity1.90783E-05Pa.sVapor Phase Heat Capacity (Cp)2.02735kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.16115Vapor Phase Mass Flow16.9097kg/hVapor Phase Wolar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Molar Weight	32.9047	kg/kmol
Vapor Phase Molar Enthalpy20195.1kJ/kmolVapor Phase Molar Entropy34.9003kJ/[kmol.K]Vapor Phase Thermal Conductivity0.0477059W/[m.K]Vapor Phase Kinematic Viscosity4.49058E-06m2/sVapor Phase Dynamic Viscosity1.90783E-05Pa.sVapor Phase Heat Capacity (Cp)2.02735kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.16115Vapor Phase Mass Flow16.9097kg/hVapor Phase Molar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Specific Enthalpy	613.746	kJ/kg
Vapor Phase Molar Entropy34.9003kJ/[kmol.K]Vapor Phase Thermal Conductivity0.0477059W/[m.K]Vapor Phase Kinematic Viscosity4.49058E-06m2/sVapor Phase Dynamic Viscosity1.90783E-05Pa.sVapor Phase Heat Capacity (Cp)2.02735kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.16115Vapor Phase Mass Flow16.9097kg/hVapor Phase Molar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Specific Entropy	1.06065	kJ/[kg.K]
Vapor Phase Thermal Conductivity0.0477059W/[m.K]Vapor Phase Kinematic Viscosity4.49058E-06m2/sVapor Phase Dynamic Viscosity1.90783E-05Pa.sVapor Phase Heat Capacity (Cp)2.02735kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.16115Vapor Phase Mass Flow16.9097kg/hVapor Phase Molar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Molar Enthalpy	20195.1	kJ/kmol
Vapor Phase Kinematic Viscosity4.49058E-06m2/sVapor Phase Dynamic Viscosity1.90783E-05Pa.sVapor Phase Heat Capacity (Cp)2.02735kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.16115Vapor Phase Mass Flow16.9097kg/hVapor Phase Molar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Molar Entropy	34.9003	kJ/[kmol.K]
Vapor Phase Dynamic Viscosity1.90783E-05Pa.sVapor Phase Heat Capacity (Cp)2.02735kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.16115Vapor Phase Mass Flow16.9097kg/hVapor Phase Molar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Thermal Conductivity	0.0477059	W/[m.K]
Vapor Phase Heat Capacity (Cp)2.02735kJ/[kg.K]Vapor Phase Heat Capacity Ratio (Cp/Cv)1.16115Vapor Phase Mass Flow16.9097kg/hVapor Phase Molar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Kinematic Viscosity	4.49058E-06	m2/s
Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.16115 Vapor Phase Mass Flow 16.9097 kg/h Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Volumetric Flow 3.98016 m3/h Vapor Phase Compressibility Factor 0.979632	Vapor Phase Dynamic Viscosity	1.90783E-05	Pa.s
Vapor Phase Mass Flow16.9097kg/hVapor Phase Molar Flow0.5139kmol/hVapor Phase Volumetric Flow3.98016m3/hVapor Phase Compressibility Factor0.979632	Vapor Phase Heat Capacity (Cp)	2.02735	kJ/[kg.K]
Vapor Phase Molar Flow 0.5139 kmol/h Vapor Phase Volumetric Flow 3.98016 m3/h Vapor Phase Compressibility Factor 0.979632	Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.16115	
Vapor Phase Volumetric Flow 3.98016 m3/h Vapor Phase Compressibility Factor 0.979632	Vapor Phase Mass Flow	16.9097	kg/h
Vapor Phase Compressibility Factor 0.979632	Vapor Phase Molar Flow	0.5139	kmol/h
· · · · · · · · · · · · · · · · · · ·	Vapor Phase Volumetric Flow	3.98016	m3/h
Vapor Phase Molar Fraction 1	Vapor Phase Compressibility Factor	0.979632	

Details

Title:

Comments:

Vapor Phase Mass Fraction	1	
Vapor Phase Volumetric Fraction	1	
Vapor Phase Molar Fraction		
Water	0.353657	
Acetonitrile	0.646343	
Ammonia	1.491E-16	
Carbon dioxide	7.5098E-22	
Hydrogen cyanide	6.90704E-08	
Liquid Phase (Mixture) Density	NaN	kg/m3
Liquid Phase (Mixture) Molar Weight	NaN	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	0	kJ/kg
Liquid Phase (Mixture) Specific Entropy	0	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	NaN	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	NaN	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	NaN	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	0	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	NaN	
Liquid Phase (Mixture) Mass Flow	0	kg/h
Liquid Phase (Mixture) Molar Flow	0	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0	
Liquid Phase (Mixture) Mass Fraction	0	
Liquid Phase (Mixture) Volumetric Fraction	0	
Liquid Phase Molar Fraction		
Water	NaN	
Acetonitrile	NaN	
Ammonia	NaN	
Carbon dioxide	NaN	
Hydrogen cyanide	NaN	

Object: MSTR-011

Property	Value	
Temperature	86.9641	С

Details

Title:

Mass Flow 10.5513 Molar Flow 0.310435 Volumetric Flow 8.97966 Mixture Density 1.17502 Mixture Molar Weight 33.9888 Mixture Specific Enthalpy 83.2344 Mixture Specific Entropy 0.478482 Mixture Molar Enthalpy 2829.04 Mixture Molar Entropy 16.263 Mixture Thermal Conductivity 0.0158077 Mixture Molar Fraction 0.3066 Acetonitrile 0.6934 Ammonia 2.46822E-1 Carbon dioxide 0 Hydrogen cyanide 1.13887E-0 Vapor Phase Density 1.17502	
Volumetric Flow8.97966Mixture Density1.17502Mixture Molar Weight33.9888Mixture Specific Enthalpy83.2344Mixture Specific Entropy0.478482Mixture Molar Enthalpy2829.04Mixture Molar Entropy16.263Mixture Thermal Conductivity0.0158077Mixture Molar Fraction0.3066Acetonitrile0.6934Ammonia2.46822E-1Carbon dioxide0Hydrogen cyanide1.13887E-0	m3/h kg/m3 kg/kmol kJ/kg kJ/[kg.K] kJ/kmol kJ/[kmol.K]
Mixture Density1.17502Mixture Molar Weight33.9888Mixture Specific Enthalpy83.2344Mixture Specific Entropy0.478482Mixture Molar Enthalpy2829.04Mixture Molar Entropy16.263Mixture Thermal Conductivity0.0158077Mixture Molar Fraction0.3066Acetonitrile0.6934Ammonia2.46822E-1Carbon dioxide0Hydrogen cyanide1.13887E-0	kg/m3 kg/kmol kJ/kg kJ/[kg.K] kJ/[kmol kJ/[kmol.K]
Mixture Molar Weight33.9888Mixture Specific Enthalpy83.2344Mixture Specific Entropy0.478482Mixture Molar Enthalpy2829.04Mixture Molar Entropy16.263Mixture Thermal Conductivity0.0158077Mixture Molar Fraction0.3066Acetonitrile0.6934Ammonia2.46822E-1Carbon dioxide0Hydrogen cyanide1.13887E-0	kg/kmol kJ/kg kJ/[kg.K] kJ/kmol kJ/[kmol.K]
Mixture Specific Entropy 0.478482 Mixture Molar Enthalpy 2829.04 Mixture Molar Entropy 16.263 Mixture Thermal Conductivity 0.0158077 Mixture Molar Fraction Water 0.3066 Acetonitrile 0.6934 Ammonia 2.46822E-1 Carbon dioxide 0 Hydrogen cyanide	kJ/kg kJ/[kg.K] kJ/kmol kJ/[kmol.K] W/[m.K]
Mixture Specific Entropy0.478482Mixture Molar Enthalpy2829.04Mixture Molar Entropy16.263Mixture Thermal Conductivity0.0158077Mixture Molar FractionVater0.3066Acetonitrile0.6934Ammonia2.46822E-1Carbon dioxide0Hydrogen cyanide1.13887E-0	kJ/[kg.K] kJ/kmol kJ/[kmol.K] W/[m.K]
Mixture Molar Enthalpy2829.04Mixture Molar Entropy16.263Mixture Thermal Conductivity0.0158077Mixture Molar FractionVater0.3066Acetonitrile0.6934Ammonia2.46822E-1Carbon dioxide0Hydrogen cyanide1.13887E-0	kJ/kmol kJ/[kmol.K] W/[m.K]
Mixture Molar Entropy 16.263 Mixture Thermal Conductivity 0.0158077 Mixture Molar Fraction Water 0.3066 Acetonitrile 0.6934 Ammonia 2.46822E-1 Carbon dioxide 0 Hydrogen cyanide 1.13887E-1	kJ/[kmol.K] W/[m.K]
Mixture Thermal Conductivity Mixture Molar Fraction Water 0.3066 Acetonitrile 0.6934 Ammonia 2.46822E-1 Carbon dioxide 0 Hydrogen cyanide	W/[m.K]
Mixture Molar FractionWater0.3066Acetonitrile0.6934Ammonia2.46822E-1Carbon dioxide0Hydrogen cyanide1.13887E-1	
Water 0.3066 Acetonitrile 0.6934 Ammonia 2.46822E-1 Carbon dioxide 0 Hydrogen cyanide 1.13887E-0	16
Acetonitrile 0.6934 Ammonia 2.46822E-1 Carbon dioxide 0 Hydrogen cyanide 1.13887E-1	16
Ammonia 2.46822E-1 Carbon dioxide 0 Hydrogen cyanide 1.13887E-0	16
Carbon dioxide 0 Hydrogen cyanide 1.13887E-0	16
Hydrogen cyanide 1.13887E-0	IV
Vapor Phase Density 1.17502	07
	kg/m3
Vapor Phase Molar Weight 33.9888	kg/kmol
Vapor Phase Specific Enthalpy 83.2344	kJ/kg
Vapor Phase Specific Entropy 0.478482	kJ/[kg.K]
Vapor Phase Molar Enthalpy 2829.04	kJ/kmol
Vapor Phase Molar Entropy 16.263	kJ/[kmol.K]
Vapor Phase Thermal Conductivity 0.0158077	W/[m.K]
Vapor Phase Kinematic Viscosity 8.56048E-0	06 m2/s
Vapor Phase Dynamic Viscosity 1.00588E-0	05 Pa.s
Vapor Phase Heat Capacity (Cp) 1.50331	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv) 1.21662	
Vapor Phase Mass Flow 10.5513	kg/h
Vapor Phase Molar Flow 0.310435	kmol/h
Vapor Phase Volumetric Flow 8.97966	m3/h
Vapor Phase Compressibility Factor 0.978938	
Vapor Phase Molar Fraction 1	
Vapor Phase Mass Fraction 1	
Vapor Phase Volumetric Fraction 1	
Vapor Phase Molar Fraction	
Water 0.3066	
Acetonitrile 0.6934	

Details

Title:

Comments:

Ammonia	2.46822E-16	
Carbon dioxide	0	
Hydrogen cyanide	1.13887E-07	
Liquid Phase (Mixture) Density	NaN	kg/m3
Liquid Phase (Mixture) Molar Weight	NaN	kg/kmol
Liquid Phase (Mixture) Specific Enthalpy	0	kJ/kg
Liquid Phase (Mixture) Specific Entropy	0	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	NaN	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	NaN	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	NaN	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	0	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	NaN	
Liquid Phase (Mixture) Mass Flow	0	kg/h
Liquid Phase (Mixture) Molar Flow	0	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0	
Liquid Phase (Mixture) Mass Fraction	0	
Liquid Phase (Mixture) Volumetric Fraction	0	
Liquid Phase Molar Fraction		
Water	NaN	
Acetonitrile	NaN	
Ammonia	NaN	
Carbon dioxide	NaN	
Hydrogen cyanide	NaN	

Object: MSTR-012 **Type:** Material Stream

Property Value

Temperature	162.27	С
Pressure	7.09275	bar
Mass Flow	6.35843	kg/h
Molar Flow	0.203465	kmol/h
Volumetric Flow	0.955127	m3/h
Mixture Density	6.65716	kg/m3

Details

Title:

Mixture Molar Weight	31.2508	kg/kmol
Mixture Specific Enthalpy	183.392	kJ/kg
Mixture Specific Entropy	0.251039	kJ/[kg.K]
Mixture Molar Enthalpy	5731.15	kJ/kmol
Mixture Molar Entropy	7.84515	kJ/[kmol.K]
Mixture Thermal Conductivity	0.0232913	W/[m.K]
Mixture Molar Fraction	0.0202010	William
Water	0.425454	
Acetonitrile	0.574546	
	1.39343E-25	
Ammonia Carbon dioxide	0	
Hydrogen cyanide	6.91523E-10	lum/ma 2
Vapor Phase Density	6.65716	kg/m3
Vapor Phase Molar Weight	31.2508	kg/kmol
Vapor Phase Specific Enthalpy	183.392	kJ/kg
Vapor Phase Specific Entropy	0.251039	kJ/[kg.K]
Vapor Phase Molar Enthalpy	5731.15	kJ/kmol
Vapor Phase Molar Entropy	7.84515	kJ/[kmol.K]
Vapor Phase Thermal Conductivity	0.0232913	W/[m.K]
Vapor Phase Kinematic Viscosity	1.93098E-06	m2/s
Vapor Phase Dynamic Viscosity	1.28549E-05	Pa.s
Vapor Phase Heat Capacity (Cp)	1.75698	kJ/[kg.K]
Vapor Phase Heat Capacity Ratio (Cp/Cv)	1.27147	
Vapor Phase Mass Flow	6.35843	kg/h
Vapor Phase Molar Flow	0.203465	kmol/h
Vapor Phase Volumetric Flow	0.955127	m3/h
Vapor Phase Compressibility Factor	0.919746	
Vapor Phase Molar Fraction	1	
Vapor Phase Mass Fraction	1	
Vapor Phase Volumetric Fraction	1	
Vapor Phase Molar Fraction		
Water	0.425454	
Acetonitrile	0.574546	
Ammonia	1.39343E-25	
Carbon dioxide	0	
Hydrogen cyanide	6.91523E-10	
Liquid Phase (Mixture) Density	NaN	kg/m3
Liquid Phase (Mixture) Molar Weight	NaN	kg/kmol

Details

Title:

Comments:

Liquid Phase (Mixture) Specific Enthalpy	0	kJ/kg
Liquid Phase (Mixture) Specific Entropy	0	kJ/[kg.K]
Liquid Phase (Mixture) Molar Enthalpy	NaN	kJ/kmol
Liquid Phase (Mixture) Molar Entropy	NaN	kJ/[kmol.K]
Liquid Phase (Mixture) Thermal Conductivity	0	W/[m.K]
Liquid Phase (Mixture) Kinematic Viscosity	NaN	m2/s
Liquid Phase (Mixture) Dynamic Viscosity	0	Pa.s
Liquid Phase (Mixture) Heat Capacity (Cp)	0	kJ/[kg.K]
Liquid Phase (Mixture) Heat Capacity Ratio (Cp/Cv)	NaN	
Liquid Phase (Mixture) Mass Flow	0	kg/h
Liquid Phase (Mixture) Molar Flow	0	kmol/h
Liquid Phase (Mixture) Volumetric Flow	0	m3/h
Liquid Phase (Mixture) Compressibility Factor	0	
Liquid Phase (Mixture) Molar Fraction	0	
Liquid Phase (Mixture) Mass Fraction	0	
Liquid Phase (Mixture) Volumetric Fraction	0	
Liquid Phase Molar Fraction		
Water	NaN	
Acetonitrile	NaN	
Ammonia	NaN	
Carbon dioxide	NaN	
Hydrogen cyanide	NaN	

Object: ESTR-009

Type: Energy Stream

Value

Energy Flow 2.48061 kW

Object: PUMP-007

Type: Pump

Property	Value
	1 0.10.0

Efficiency 100 Delta-T 304.688 C. Power Required 2.48061 kW Available NPSH Infinity m	Pressure Increase (Head)	5.98675	bar
Power Required 2.48061 kW	Efficiency	100	
	Delta-T	304.688	C.
Available NPSH Infinity m	Power Required	2.48061	kW
	Available NPSH	Infinity	m

Object: HE-015

Details

Title:

Heat Exchange Area (A) Heat Load -0.00196106 kW Cold fluid outlet temperature 84 C Hot fluid outlet temperature 87.4088 C [Shell and Tube] Internal Shell Diameter [Shell and Tube] Shell Fouling Factor 0 K.m2/W [Shell and Tube] Baffle Cut 20 % [Shell and Tube] Baffle Spacing 250 mm [Shell and Tube] Baffle Spacing Shell and Tube] Internal Tube Diameter 500 mm [Shell and Tube] External Tube Diameter 60 mm [Shell and Tube] Tube Length 5 m [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Posses Per Shell 2 [Shell and Tube] Tube Posses Per Shell 2 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] Fouling Factor (Pesign) 0 K.m2/W [Shell and Tube] External Tube Diameter 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W [Shell and Tube] Resistance thermal conductivity pipes
Cold fluid outlet temperature 84 C Hot fluid outlet temperature 87.4088 C [Shell and Tube] Internal Shell Diameter 500 mm [Shell and Tube] Shell Fouling Factor 0 K.m2/W [Shell and Tube] Baffle Cut 20 % [Shell and Tube] Shells in Series 1 [Shell and Tube] Baffle Spacing 250 mm [Shell and Tube] Internal Tube Diameter 50 mm [Shell and Tube] External Tube Diameter 60 mm [Shell and Tube] Tube Length 5 mm [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] External Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C.
Hot fluid outlet temperature [Shell and Tube] Internal Shell Diameter [Shell and Tube] Shell Fouling Factor [Shell and Tube] Baffle Cut [Shell and Tube] Baffle Cut [Shell and Tube] Shells in Series [Shell and Tube] Baffle Spacing [Shell and Tube] Baffle Spacing [Shell and Tube] Internal Tube Diameter [Shell and Tube] External Tube Diameter [Shell and Tube] External Tube Diameter [Shell and Tube] Tube Length [Shell and Tube] Tube Fouling factor [Shell and Tube] Tube Passes Per Shell [Shell and Tube] Tube Passes Per Shell [Shell and Tube] Tube Pitch [Shell and Tube] Tube Pitch [Shell and Tube] Tube Pitch [Shell and Tube] Fouling Factor (Design) [Shell and Tube] LMTD Correction Factor (F) [Shell and Tube] Resistance heat transfer pipes [Shell and Tube] Resistance heat transfer pipes [Shell and Tube] Resistance heat transfer pipes
[Shell and Tube] Internal Shell Diameter [Shell and Tube] Shell Fouling Factor 0 K.m2/W [Shell and Tube] Baffle Cut 20 % [Shell and Tube] Shells in Series 1 [Shell and Tube] Baffle Spacing 250 mm [Shell and Tube] Internal Tube Diameter 50 mm [Shell and Tube] External Tube Diameter 60 mm [Shell and Tube] Tube Length 5 mm [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] Fouling Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Shell Fouling Factor 0 K.m2/W [Shell and Tube] Baffle Cut 20 % [Shell and Tube] Shells in Series 1 [Shell and Tube] Baffle Spacing 250 mm [Shell and Tube] Internal Tube Diameter 50 mm [Shell and Tube] External Tube Diameter 60 mm [Shell and Tube] Tube Length 5 m [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Number of Tubes 160 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] Fouling Factor (Design) 1 Correction Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Baffle Cut [Shell and Tube] Shells in Series 1 [Shell and Tube] Baffle Spacing 250 mm [Shell and Tube] Internal Tube Diameter 50 mm [Shell and Tube] External Tube Diameter 60 mm [Shell and Tube] Tube Length 5 m [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Number of Tubes 160 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] Fouling Factor (Design) 10 [Shell and Tube] External Tube Pitch 10 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Shells in Series [Shell and Tube] Baffle Spacing [Shell and Tube] Internal Tube Diameter [Shell and Tube] External Tube Diameter [Shell and Tube] External Tube Diameter [Shell and Tube] Tube Length [Shell and Tube] Tube Fouling factor [Shell and Tube] Tube Passes Per Shell [Shell and Tube] Number of Tubes [Shell and Tube] Number of Tubes [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) [Shell and Tube] LMTD Correction Factor (F) Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Baffle Spacing 250 mm [Shell and Tube] Internal Tube Diameter 50 mm [Shell and Tube] External Tube Diameter 60 mm [Shell and Tube] Tube Length 5 m [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Number of Tubes 160 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] LMTD Correction Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Internal Tube Diameter 50 mm [Shell and Tube] External Tube Diameter 60 mm [Shell and Tube] Tube Length 5 m [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Number of Tubes 160 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] LMTD Correction Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] External Tube Diameter 60 mm [Shell and Tube] Tube Length 5 m [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Number of Tubes 160 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] LMTD Correction Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Tube Length 5 m [Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Number of Tubes 160 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] LMTD Correction Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Tube Fouling factor 0 K.m2/W [Shell and Tube] Tube Passes Per Shell 2 [Shell and Tube] Number of Tubes 160 [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] LMTD Correction Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Tube Passes Per Shell [Shell and Tube] Number of Tubes [Shell and Tube] Tube Pitch [Shell and Tube] Fouling Factor (Design) [Shell and Tube] LMTD Correction Factor (F) Logarithmic mean temperature difference LMTD [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Number of Tubes [Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) [Shell and Tube] LMTD Correction Factor (F) Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Tube Pitch 40 mm [Shell and Tube] Fouling Factor (Design) 0 K.m2/W [Shell and Tube] LMTD Correction Factor (F) 1 Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Fouling Factor (Design) [Shell and Tube] LMTD Correction Factor (F) Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] LMTD Correction Factor (F) Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
Logarithmic mean temperature difference LMTD 3.13332 C. [Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
[Shell and Tube] Resistance heat transfer pipes 0 K.m2/W
1
IShall and Tubal Desistance thermal conductivity pines 0 V m2/M
[Shell and Tube] Resistance thermal conductivity pipes 0 K.m2/W
[Shell and Tube] Resistance heat transfer shell 0 K.m2/W
[Shell and Tube] Reynolds number shell 0
[Shell and Tube] Reynolds number tubes 0
Thermal Efficiency -15.5552 %
Maximum Theoretical Heat Exchange 0.0126071 kW
Minimum Temperature Difference 0 C.
Heat Loss 0 kW