

COFE - [Ethylene (CSTR equilibrium) V1.0:1]

File Edit Insert Flowsheet Plot View Add-ins Window Help

Document Explorer

- Ethylene (CSTR equilibrium) V1.0
  - Flowsheet
  - 1, 2
  - Settings

Stream	1	2	Unit
Pressure	50	50	atm
Temperature	250	320	°C
Flow rate	200	N/A	kmol/h
Mole frac Ethylene	0.5	N/A	
Mole frac Water	0.5	N/A	
Mole frac Ethanol	0	N/A	

```

Last run for unit Ethanol Synthesis Reactor:
+++ specifications +++
Using enthalpyF in enthalpy calculations
Temperature: 393.15 K
Pressure drop: 0 Pa
Reaction phase: Vapor
Tolerance: 0.0001
Maximum iterations: 100
Basis for reaction "Ethylene Hydration": molarity (molar density)
+++ no solution +++
Solution failed: Function evaluation failed: Internal error; unknown reaction
basis for reaction Ethylene Hydration
  
```

Ethanol Synthesis Reactor		
Parameter	Value	Unit
Temperature	320	°C
Heat duty	-361945	W
Heat duty type	isothermal	
Enthalpy Type	Use EnthalpyF	
Ethylene conversion	N/A	
Water conversion	N/A	

Ethanol Synthesis Reactor  
CSTR (Equilibrium)

Calculate unit:

Failed to calculate the selected unit operation: failed to solve unit Ethanol Synthesis Reactor: calculate failed for unit Ethanol Synthesis Reactor: Solution failed: Function evaluation failed: Internal error; unknown reaction basis for reaction Ethylene Hydration

OK

Title: Ethylene (equilibrium) V1.0  
Author: DAE  
Created: Apr 20, 2013

**solving Ethanol Synthesis Reactor**  
**error: calculate failed for unit Ethanol Synthesis Reactor: Solution failed: Function evaluation failed: Internal error; unknown reaction basis for reaction Ethylene Hydration**

Document Explorer Watch Log 1 error

Solve: Ethanol Synthesis Reactor

CAP NUM SCRL 9:51 PM 4/20/2013