SuperChems™ for DIERS:
A Comprehensive Tool for Pressure Relief Design

SuperChems™ for DIERS is a sophisticated technological tool for process safety, exclusively available for license from The American Institute of Chemical Engineers (AIChE®). Its roots go back to the DIERS SAFIRE software. **SuperChems is an industry-recognized, versatile software tool that provides an integrated platform for pressure relief and flare systems (PRFS) evaluation and design.** SuperChems for DIERS is available to AIChE, CCPS, and DIERS members. This powerful tool can be used for **simple and complex flow dynamics, pressure relief systems and containment vent design, and VLE/VLLE analysis.**

What Attributes Of SuperChems For DIERS Will Help You?

Attribute	For example...
Mixture Properties	Handles mixtures, properties databank, thermo-physical & transport property estimation methods, property estimation methods, and data reduction and regression.
Vapor-Liquid Equilibrium	Common flash blocks, Binary T-X-Y diagrams, and VLE/VLLE consistency checks and binary interaction parameter estimation.
Reactions	Handles stoichiometric reactions & supercritical systems, accepts Arrhenius expressions, and has a reaction definition module.
Fire/Abnormal Heat Input Options	Choice of NFPA-30, API-521, and API-2000; and credit for less exposure to fire when the equipment is physically blocked from fire.
Vessel and Pipe Flow Model Options	Bubbly, churn-turbulent, user specified; vapor; flashing two phase bottom-vent/subcooled; and homogeneous slip equilibrium flow.
Equipment Options	Vertical and horizontal vessels with user defined heads, spherical vessels, and rectangular vessel
Reporting and Data Analytics	Individual model tabulated results and graphs.
Flow and Source Term Models	Liquid vessel dynamics, two-phase/universal vessel dynamics, gas vessel dynamics, and gas/liquid/two-phase piping.

DIERS

Visit the DIERS website, aiche.org/diers, or email ccps@aiche.org for more information.