

Abstract Submitted
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The Equation of State of PBX 9502 TARIQ ASLAM, Los Alamos Natl Lab — Reactive flow modeling of high explosives (HEs) requires accurate equation of states (EOS) for both the HE's reactants and products. The Wescott-Stewart-Davis “wide-ranging EOS” model will be examined. A procedure for calibrating both the reactants and products for this EOS will be presented. Several thermodynamic pathways will be explored for the plastic bonded HE PBX 9502. These include: isothermal compression, isentropic compression, single and multiple shock compression, isobaric thermal expansion, adiabatic expansion of the products and the overdriven detonation state. Data from several different experimental techniques are employed to constrain model parameters. Validation tests of the model EOS will also be presented.

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