NALAS Engineering
solutions that scale

## OUR MISSION

Our mission is to promote technological innovation in the chemicals industry by applying science-based knowledge to solve the problems and achieve the goals of our CUSTOMERS. The creative ideas conceived by the customer will be realized by the Nalas team of scientists and engineers. We support our customers with all aspects of process engineering that result in a new dimension of performance and enable **SOLUTIONS THAT SCALE** from the laboratory to commercial production. We provide sustainable and green processes which can be transitioned to industry, thus enabling lowest-cost domestic production of chemicals critical to our NATION'S military, industrial, and pharmaceutical needs.

20,000 sqft Facility in Centerbrook, CT is home to our analytical and development labs and kilo-scale operations.

Mettler Toledo's EasyMax platform is a reliable and automated system utilized for reaction and crystallization screening in our development lab.


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NALAS

## Your partner in chemical and pharmaceutical process development.

Founded in 2008 as a contract research organization, Nalas Engineering serves the US government, pharmaceutical, and fine/specialty chemical sectors by providing innovative chemistry, chemical engineering, and manufacturing technology solutions.

The DoD's Small Business Innovative Research Program is a core part of Nalas' business portfolio. Since our founding, Nalas has proudly supported a dozen DoD research objectives through the SBIR program with over 80% success rate for Phase 2 transitions. Building upon these successes, Nalas is expanding operations to include manufacture of critical chemicals to address obsolescence, and OCONUS and sole-source challenges.

75,000 sqft Manufacturing Facility in Norwich, CT will have operations dedicated to manufacturing critical materials for the US Government.

# SOLUTIONS THAT SCALE

## PRODUCTS AND SERVICES

- Synthesis and Chemistry Optimization
- Alternative and "Green" Chemistry Solutions
- Reaction Monitoring for Data Rich Experimentation
- Process Engineering and Crystallization Development
- Solid State Chemistry and Characterization
- Reaction Modeling and Simulation (Including kinetics, mixing, solubility)
- Onsite Analytics and Method Development
- Novel Technology Development
- Process Safety, Training / Webinars
- Chemical Process Scale-Up
- BDNPA/F energetic plasticizer
- DAPO (2,6-Diaminopyrazine-1-oxide)

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## CORE ADVANTAGES

**Our Expertise:**

- The Nalas team has vast experience in the analysis, synthesis, crystallization and process engineering of energetic and pharmaceutical materials and their precursors, a one-of-a-kind position in the CRO and CMO marketplace which brings a unique perspective to process development and a streamlined path to manufacturing.

**Our Facilities:**

- 20,000 sqft Development and Scale-Up Facility with Analytical, Solid-State, High Potency, and Kilo (up to 100 L jacketed reactors) Labs.
- 75,000 sqft Chemical Manufacturing Facility.

**Our Technologies:**

- Automated Reactor Platforms, Continuous Reactors, Crystallization, and Processing Platforms, In situ Reaction Monitoring, Modeling Software, Resonant Acoustic Mixers, FlowNMR and more!

**Our Commitment:**

- Nalas aims to be the premier transition agent for scaling novel chemistry into commercial success by being the "one-stop-shop" for our customers' process development needs, from the lab through sustainable and "green" production.

## LICENSES

- Certified Alcohol, Tobacco, Firearms and Explosives (ATF)
- Defense Contract Management Agency (DCMA)
- Defense Security Service (DSS)
- Controlled Substance License
- Controlled Substance Registration with Drug Enforcement Agency (DEA)


Mettler Toledo's RC1 Reaction Calorimeter, a Nalas workhorse and staple for process scale-up, is the industry "Gold Standard" for measuring heat profiles, chemical conversion and heat transfer under process-like conditions.