

**FOR IMMEDIATE RELEASE**

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**Sigma-Aldrich and SiGNa Chemistry Announce Availability of  
Powerful Technology for Controlled Use of Alkali Metals**

*Start-up's breakthrough product harnesses power of alkali metals for generating low-cost hydrogen energy and streamlining industrial processes from pharma to ecological remediation*

**St Louis, MO** – Sigma-Aldrich Corporation (**Nasdaq: SIAL**), a \$1.4 billion Life Science and High Technology Company, and SiGNa Chemistry, the early advanced materials company that recently made history with alkali metal stabilization, today announced that SiGNa's powerful reduction agent product will be distributed by Sigma-Aldrich.

SiGNa's patent-pending alkali metal reagents allow scientists and researchers to dramatically improve efficiencies and results, bypassing traditional dangerous steps in alkali metal reduction processes. Safe to use in air, without the need for extreme temperatures and pressures, the alkali metals are stabilized in an easy to handle and store powder and will be available through Sigma-Aldrich. A leader in life science and high technology, Sigma-Aldrich provides more than a million scientists and researchers in 35 countries the most innovative and reliable reagents for research and development.

"We are pleased to work with SiGNa Chemistry. Their technological breakthroughs have unlocked the many attributes of the alkali metals, and this heralds simplicity, safety and savings in research and manufacturing methods," said Chris Hewitt, Director of Business Development for Chemistry at Sigma-Aldrich. "Encapsulating alkali metals into silica gel enables scientists that have traditionally shied away from these metals to now safely and routinely perform reductions. The product is expected to also stimulate the micro fuel cell sector to explore inventive uses for this easy method to generate hydrogen."

"Our advanced materials have potentially wide uses in such diverse areas as hydrogen energy development, drug manufacturing, petroleum refining, and environmental remediation," said Michael Lefenfeld, SiGNa Chemistry President and Chief Scientific Officer. "Industries that require the reduction properties of alkali metals now have an alternative to traditional multi-step processing, which will translate into major savings in costs and time. We're also excited about re-introducing the metals to research labs and manufacturers who have hesitated to use them in their systems, such as pharmaceutical manufacturers and petroleum refiners."

SiGNa Chemistry announced last month it had developed the first advancement in alkali metals processing in more than a century, and that the technology produces inexpensive hydrogen when combined with water. The company is targeting the \$10 billion micro fuel cell market for portable electronic devices, as well as the pharmaceutical industry's drug manufacturing sector.

About SiGNa Chemistry, LLC.

SiGNa Chemistry is an early-stage company developing unique solutions to compelling chemistry problems through the power of interdisciplinary science. SiGNa is positioned to develop and deliver a host of solutions to a wide range of scientific applications and industries. The company's advanced

materials will deliver new products to academic and industrial markets as diverse as pharmaceutical synthesis, petroleum refining, organometallics, catalysis, and hydrogen energy. For more information: <http://www.signachem.com>.

About Sigma-Aldrich: Sigma-Aldrich (Nasdaq: SIAL) is a leading Life Science and High Technology company. The Company's biochemical and organic chemical products and kits are used in scientific and genomic research, biotechnology, pharmaceutical development, the diagnosis of disease and as key components in pharmaceutical and other high technology manufacturing. It has customers in life science companies, university and government institutions, hospitals, and in industry. Over one million scientists and technologists use its products. Sigma-Aldrich operates in 35 countries and has over 6,800 employees providing excellent service worldwide. The Company is committed to accelerating Customers' success through leadership in Life Science, High Technology and Service. For more information, visit [sigma-aldrich.com](http://sigma-aldrich.com).

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