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## **SiGNa Chemistry Licenses Olefin Isomerization Catalysts from ExxonMobil**

*SiGNa Expands Green Chemistry Offering with Catalysts for Fine Chemical Production*

**New York – March 04, 2008** – SiGNa Chemistry, Inc., a developer of stabilized reactive metals for safer, more efficient industrial chemistry, today announced that it has been granted an exclusive license from ExxonMobil Chemical Technology Licensing LLC to patents which will facilitate the manufacture and sale of a suite of proprietary alkali metal catalysts to customers worldwide. The proprietary olefin isomerization catalysts improve efficiency and safety in a number of chemical synthesis pathways including the production of rubber and polymers. SiGNa Chemistry plans to explore additional applications in the pharmaceutical market where the catalysts may enable greener, continuous-flow synthesis of small molecule intermediates.

“SiGNa Chemistry has built a business delivering innovative reactive metals that improve efficiency, safety and the bottom line for our global pharmaceutical, energy and specialty chemical customer base. This licensing agreement extends our industrial green chemistry offering with new catalytic products that perfectly complement our core technology and company mission,” said Michael Lefenfeld, president and CEO of SiGNa Chemistry.

Produced by the careful oxidation of alkali metals combined with alumina, the proprietary catalysts are highly active and selective, even in the presence of reactive impurities. The catalysts are particularly useful for isomerizing 5-vinyl-2-norbornene (“VNB”) to 5-ethylidene-2-norbornene (“ENB”), a fundamental reaction in the commercial production of elastomeric polymers, synthetic rubbers and other refined chemicals.

The proprietary catalysts enable reaction efficiencies, cost reduction and safety improvements over the liquid bases and other solid catalysts that constitute the two conventional options for ENB production. With relatively low catalytic activity, liquid base counterparts require large quantities of the expensive materials to produce the desired reaction. Once the reaction is complete, the liquid catalysts also involve a complex, energy intensive recovery process that drives further inefficiencies and costs. Other known solid isomerization catalysts present their own handling hazards as their alkali metal content makes them susceptible to violent reaction and loss of activity upon contact with oxygen and water. Furthermore, the solid catalysts have comparatively poor isomerization performance with low conversion and selectivity. In contrast, SiGNa Chemistry’s newly licensed isomerization catalysts offer a stable, active mechanism for driving the ENB synthesis pathway.

**About SiGNa Chemistry:**

SiGNa Chemistry, Inc., an advanced materials company, has developed a green nanotechnology- based solution that makes reactive metals far more efficient, safer, and cost effective. Reactive metals are fundamental components used for general synthesis in the pharmaceutical, petrochemical, specialty chemical and environmental remediation industries. It also has the potential to enable portable fuel cells to become practical by safely producing record levels of pure hydrogen gas from a safe, stable dry powder at room temperature. In all of these ventures, the use of reactive metals, such as alkali metals, is currently curtailed or avoided all together due to their high degree of instability, which makes them difficult and expensive to handle. SiGNa's products have solved the problems of safety and cost efficiency, representing the most substantial scientific breakthrough in reactive metals in over 100 years. For more information, visit: <http://www.signachem.com>.

**About ExxonMobil Chemical Technology Licensing LLC:**

ExxonMobil Chemical Technology Licensing LLC is a globally recognized licensor of proprietary technologies, both directly and through arrangements with other licensing companies. The technology offerings span petrochemical and polymer sectors including manufacturing technologies for low density polyethylene, polypropylene, paraxylene, benzene, mixed xylenes, ethylbenzene, cumene, propylene and ethylene, with supporting proprietary catalyst offerings in the aromatics process technology areas. For additional information see the ExxonMobil Chemical web site at [www.exxonmobilchemical.com](http://www.exxonmobilchemical.com) under the Technology menu.

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