

## Linde to install world's largest on-site fluorine plant to deliver safety and process benefits at SK Hynix M14 plant

## Linde Electronics, industry leader in gases for the electronics market, to exhibit at SEMICON West

**San Francisco, CA, July 7, 2015** – Linde Electronics and Specialty Gases, an affiliate of Linde North America, a member of The Linde Group, and an industry leader in gases for the electronics market, announces today a new onsite fluorine plant to supply SK Hynix Semiconductor, a world-leading manufacturer of DRAM and NAND flash memories. The plant, which will be the world's largest on-site fluorine (F2) plant, will supply the M14 line in Icheon, South Korea from the end of Q2 2015. This expansion of Linde's patented on-site F2 technology to this new facility follows successful implementations at all SK Hynix's production sites.

Carl Jackson, VP, Technology and Applications Development, Linde Electronics, said: "We're proud to have had such a successful relationship with SK Hynix over the last 10 years, which has demonstrated the process benefits possible with onsite F2 along with a perfect safety record. We look forward to continuing to work together to further help SK Hynix improve the cost effectiveness of its manufacturing process."

Linde's on-site F2 technology has an established presence for chamber cleaning applications across semiconductor, display and solar industries. It has been proven to be a highly effective fluorinated cleaning gas, demonstrating reductions in cleaning and recovery time and reduced plasma power consumption including, in some cases, elimination of the requirement to generate plasma for cleaning and reduced mass of chemicals required compared to the fluorinated gases typically used. Increasing concerns over the environmental impact of NF3 and potential legislation that could restrict its use in the future also contribute to interest in this proven technology.

## Linde Electronics and Specialty Gases at SEMICON West

Linde Electronics and Specialty Gases will be exhibiting at SEMICON West tradeshow in San Francisco July 14-16. Its focus will be on the quality, expertise, commitment and environmental leadership that Linde Electronics brings to the semiconductor industry through such offerings as electronic specialty gases, on-site solutions, materials recycling and recovery and SPECTRA® nitrogen plants.

SEMICON West is the annual tradeshow for the micro-electronics manufacturing industry. All visitors are welcome to visit Linde in booth number 1105 in the South hall in the Moscone Center in San Francisco. For further inquiries, please contact Francesca Brava at francesca.brava@linde.com.

## About The Linde Group

In the 2014 financial year, The Linde Group generated revenue of USD 17.9 bn (EUR 17.047 bn), making it the

largest gases and engineering company in the world with approximately 65,500 employees working in more than 100 countries worldwide. The strategy of The Linde Group is geared towards long-term profitable growth and focuses on the expansion of its international business with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment – in every one of its business areas, regions and locations across the globe. The company is committed to technologies and products that unite the goals of customer value and sustainable development. For more information, see The Linde Group online at www.linde.com

Linde Electronics and Specialty Gases is an affiliate of Linde North America, a member of The Linde Group, and is an industry leader in gases for the electronics market— semiconductor, solar, display, and LED. Linde Electronics helps electronics companies achieve their goals through a strong focus on quality and environmental leadership, its expertise, commitment to the industry through ongoing investments in processes, engineering, and on-site and localized solutions, a broad portfolio that includes environmentally sustainable and highly specialized and rigorously measured electronic specialty gases (ESGs), bulk/pipeline gases, equipment, and services, and through working closely with customers to better meet their evolving needs. For more information, visit www.linde-gas.com/electronics or contact electronicsinfo@linde.com.

For more information, please contact:

Amy Ficon Linde corporate communications 908-771-1491 amy.ficon@linde.com

Francesca Brava Linde Electronics Marketing Services Manager Phone: 510-388-6955 francesca.brava@linde.com