IHS CHEMICAL

PEP Report 56B

Advances in Urea Technology

November 2015

ihs.com

PEP Report 56B

Advances in Urea Technology

Mike Kelly
Sr. Principal Analyst

PEP Report 56B

Advances in Urea Technology

Mike Kelly, Sr Principal Analyst

Abstract

The market for urea continues to expand as its popularity is linked to two primary advantages over competing products: 1) it has higher nitrogen content, and 2) it is relatively easy to handle and transport. These factors, along with changing population and consumer diet trends are expected to continue to promote steady demand growth for the foreseeable future. Feedstock market dynamics, such as the push to develop local industry through coal-based initiatives in China and the US shale gas revolution, have all spurred a flurry of urea investment activity in recent years. While the pace is expected to decelerate somewhat, investment will continue, especially in areas of the world with access to low-cost feedstock.

Urea technology is established, mature, and readily available for license. In this space, there are three primary licensing companies from a global market share perspective: Stamicarbon, Saipem S.p.A., and Toyo Engineering Corporation. This report provides detailed technical and economic evaluations, covering the latest urea technologies from each of these licensors. A general review of the technical field and recent process developments by other companies is also included.

The analysis and techno-economic design results that follow are based on a plant with an annual capacity of 4,000 metric tons per day (3,219 million pounds per year) of granular urea. Alternative investment and production cost estimates are also provided for plant capacities at 50% and 150% of the base case. While the capital and production cost results herein are presented on a US Gulf Coast basis, the accompanying iPEP Navigator Excel-based data module (available with the electronic version of this report) allows for viewing results for other major regions, along with conversion between English and metric units.

Contents

Tables

Figures

IHS Customer Care:

Americas: +1 800 IHS CARE (+1 800 447 2273); CustomerCare@ihs.com
Europe, Middle East, and Africa: +44 (0) 1344 328 300; Customer.Support@ihs.com
Asia and the Pacific Rim: +604 291 3600; SupportAPAC@ihs.com