

***Australia's sole manufacturer and supplier of polyethylene***

**Locations:** Altona Victoria and Botany New South Wales

**Employment:** Approximately 750 employees.

**Manufactured Product Range:** The full range of polyethylenes – HDPE, LDPE, LLDPE

***Annual Capacity:***

**Olefins/Olefines:** Approximately 450,000 tonnes ethylene

**Polyethylene:** About 200,000 tonnes HDPE; 90,000 tonnes LDPE and 120,000 tonnes of LLDPE

***Ownership:***

In September 2008, Qenos became a subsidiary of China National Bluestar (Group) Co. Ltd, a joint venture between China National Chemical Corporation (ChemChina) and The Blackstone Group. ChemChina is a state owned enterprise that employs more than 100,000 people and has assets close to \$A15 billion. ChemChina is growing rapidly within China and internationally. Qenos is focused on supplying the local Australian polyethylene market and has an annual revenue of about A\$800M.

***Our Plants:***

**An Overview of the Botany Site**

The Qenos Botany site covers 37 hectares and is located approximately 17 km south of the Sydney central business district. The area is adjacent to Botany Bay and its shipping terminal. Chemical companies first commenced operations at Botany in 1942 and since that time the area has developed into a major chemical and plastics manufacturing location. The Qenos plants include Olefines, Alkatuff, Alkathene and Site Utilities. Site Utilities provides steam and power to all Qenos Botany plants and also the neighbouring Orica Chlorine and Huntsman Surfactants plants.

**Olefines Botany**

The Olefines plant was built in 1983 and originally operated on a naphtha and liquid petroleum gas (LPG) feedstock producing both ethylene and propylene. In 1996 the operation was converted and began to process ethane feedstock and the plant now produces approximately 250,000 tonnes of ethylene per year for the two downstream polyethylene plants – Alkathene and Alkatuff and other domestic and export customers.

**Alkatuff Botany**

The Alkatuff plant is the newest polyethylene plant and was commissioned in 1992. It produces over 120,000 tonnes of polyethylene per annum. The process requires only low pressure for production. The product is a stronger polymer called linear low-density polyethylene. LLDPE is light and has high strength properties. The polyethylene is used in many applications including stretch wrapping, food packaging and rotational moulded products including water tanks. Alkatuff also produces High Density injection grades.

**Alkathene Botany**

The Alkathene plant uses a high-pressure polymerisation process and is currently producing about 70,000 tonnes of low-density polyethylene per year. LDPE is moisture proof, flexible, transparent, heat sealable, hygienic and recyclable. LDPE is used for plastic bags, film, moulded plastic products and linings for milk and juice cartons.

### **An Overview of the Altona Sites:**

The Altona Chemical Complex began production in the early 1960s and is the largest production centre for petrochemicals and plastics in Australia today. The Qenos Altona site covers 103 hectares and is located approximately 15 km west of the Melbourne central business district.

#### **Olefins Altona**

Olefins produces ethylene for its downstream plastic plants. It also supplies other manufacturers that use these basic raw materials. It has an ethylene capacity of more than 180,000 tonnes per year.

#### **Plastics Altona**

The Plastics site manufactures High Density Polyethylene (HDPE). Low pressure polymerisation is the industrial process used to transform ethylene into polyethylene.

Many items that are used in the home, such as milk bottles, micro irrigation pipes, moulded plastics and telecom conduit are made from resin produced at Qenos Plastics.

#### **Resins Altona**

Production began at the site in 1967 as Hoechst Australia. Qenos Resins produces high density polyethylene (HDPE). The current capacity of this plant is more than 100,000 tonnes per annum and it provides the raw material for plastic products in a wide range of domestic and consumer goods.

#### **Qenos Technical Centre**

Qenos has a state of the art technical centre with sophisticated analytical and processing laboratories at Altona. It provides the resources to develop the products that our customers want. Our technical specialists work closely with our customers. This ensures we understand each individual customer's processes and markets. Our skills can deliver powerful market advantage to our customers.

#### **Summary of Qenos Products/End Uses**

<b>Plant</b>	<b>Main Products</b>	<b>End Uses</b>
<b>Qenos Olefins</b>	Ethylene	Basic raw materials for production of plastics
<b>Qenos Plastics</b>	High Density Polyethylene	Plastic materials used for automotive parts, bottles, water and gas pipe, wire and cable insulants, miscellaneous moulded articles, plastic components for motor vehicles
<b>Qenos Resins</b>	High Density Polyethylene  Polyethylene Wax	Pipes, bottles, packaging, electrical appliances and an extensive range of domestic and consumer goods  Processing aid, wax blending and hot melt adhesive
<b>Botany Olefines Alkathene Alkatuff</b>	Ethylene Polyethylene	Plastic for film, moulded plastic products, water tanks, linings of drink cartons, toys, garden equipment, bread wrapping and electrical cable insulation and industrial packaging

#### **Qenos Imported Product Range**

Qenos acts as a local agent for a wide range of imported polymers manufactured by ChemChina, ExxonMobil Chemical, Dexco Polymers, Kumho, BASF, Haohua and others. These products include: EPDM; butyl, nitrile and polychloroprene rubber, metallocene PE; EVA; EMA; EAA/ionomer; PP; BOPP, Expandable Polystyrene, polyester resins; bitumen modifiers; tackifying resins; polymer modifiers; styrenic thermoplastic rubbers; thermoplastic elastomers; styrene butadiene rubbers and PIB.