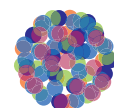


# C11 CHLOR-ALKALI

## THE SOUTH AFRICAN CHLOR-ALKALI INDUSTRY



**CHEMICAL  
INDUSTRIES**  
RESOURCE PACK

### Overview

Until recently the South African chlor-alkali industry mainly consisted of Sasol Polymers and NCP Chlorchem plus Mondi who are producing small amounts of chlorine for captive use. However, another player recently entered the scene in the form of Straits Chemicals as part of the Coega Development Initiative. The following table gives an overview of the capacities, technology used and main products of the South African chlorine producers.

Chlor-Alkali producers in South Africa				
Company	Straits	Sasol Polymers	NCP Chlorchem	Mondi
Capacity	200 000 tpa (proposed)	Approx 120 000 tpa	Approx 90 000 tpa	Approx 15 000 tpa
Location	Coega	Sasolburg	Kempton Park	Richards Bay
Technology	Membrane	Membrane/ Diaphragm	Membrane	Membrane
Use	Export, various down-stream plants	PVC, HCl, CsCl <sub>2</sub> , Hypochlorite	Water treatment, HCl, Hypochlorite	Paper production
Comment	At the moment in the project state		Busy expanding to 170 000 tpa	

*This material was compiled for the Chemical Industries Resource Pack. Learners - if you use any part of it you need to write it in your own words and include the following in your reference list: UCT Chemical Engineering Schools Project. 2010. Chemical Industries Resource Pack. Cape Town.*

## Straits Chemicals to invest R5,8bn in Coega chlorine, desalination plant

23 April 2007

Straits Chemicals on Monday inked a deal which will see it spending R5,8-billion on a chlorine manufacturing and water desalination plant at the Coega Industrial Development Zone, near Port Elizabeth.

The plant will have the capacity to produce 600 t of chlorine a day and will supply to both export and domestic markets. Straits Chemicals will introduce a new state-of-the-art membrane technology that is cleaner and friendlier to the environment. This project is expected to create 600 jobs during construction and, once operational, will employ

about 250 people on a three shift basis, excluding management positions.



*This article was published online by Creamer Media's Engineering News. Learners - if you use any part of it you need to write it in your own words and include the following in your reference list: Hill, L. 2007. Straits Chemicals to invest R5,8bn in Coega chlorine, desalination plant. [Online]. Available: <http://www.engineeringnews.co.za/article/straits-chemicals-to-invest-r58bn-in-coega-chlorine-desalination-plant-2007-04-23> [21 July 2010].*



## Sasol

Phosphoric acid is produced in Phalaborwa as raw material for the detergent industry. Sasol is the only sodium tri-polyphosphate (STPP) producing company in Sub-Saharan Africa. STPP is used as builder in soap manufacturing for the detergent industry. Sasol produces fatty (long carbon chain) alcohols that are also used in detergents. Sasol polymers produce caustic soda. They also produce 2121 tonnes per annum (2007) of sodium hypochlorite.

Source: [www.sasol.com](http://www.sasol.com)



## AECI

AECI is a leading supplier of chemicals and related products to a wide range of industries. Its three main subsidiaries are African Explosives Limited, Chemical Services Limited and Heartland Properties. AECI produces caustic soda and hydrochloric acid. It also produces oleum, urea and tall oil/vegetable fatty acids/derivatives which are used in detergent manufacturing.

Source: [www.aeci.co.za](http://www.aeci.co.za)



## Chlor-Alkali Holdings (Pty) Ltd

Chlor-Alkali Holdings (Pty) Ltd is the holding company of a South African based manufacturer and distributor of salt, chlor-alkali products and derivatives targeted at the water treatment-, industrial-, paper- and chemical markets. It has about 35% of current chlor-alkali capacity in South Africa (2005). The business is comprised of two distinct operations, the chlor-alkali operations at Chloorkop, trading as NCP Chlorchem (Pty) Ltd and the salt operation at Walvis Bay, trading as Walvis Bay Salt Refiners (Pty) Ltd. Waterchem, a division of NCP Chlorchem (Pty) Ltd, came into existence in May 2004 following the Competition Board's approval of the purchase of Sasol Polymers packed chlorine business.

Source: [www.ncp.co.za](http://www.ncp.co.za)



## Mondi

Mondi South Africa, has a paper mill in Durban and a pulp and linerboard mill and wood chipping plant in Richards Bay. They also own and manage more than 327 000 hectares of forestry plantations. Mondi produced 28291 tonnes per annum (2007) of sodium hypochlorite which is used in the production of paper.

Source: [www.mondigroup.com](http://www.mondigroup.com)



## Protea Chemicals (a member of the Omnia Group)

Protea Chemicals produces sodium hypochlorite (5000 tonnes, 2007) from chlorine. Sodium hypochlorite is used as a bleaching agent and disinfectant. Protea Chemicals operates sodium hypochlorite plants in the Eastern and Western Cape.

Source: [www.proteachemicals.co.za](http://www.proteachemicals.co.za)



## Zetachem

Zetachem was founded in 1986. They are a major supplier of speciality polymers and chemical management systems to the leading companies in the water treatment, mining and pulp and paper industries. Zetachem is the largest producer of organic coagulants in Africa and in the Southern Hemisphere. Zetachem manufactures 10 000 tonnes per annum of sodium hypochlorite in Durban, KZN.

Source: [www.zetachem.co.za](http://www.zetachem.co.za)