

# The Bahia Plant

Rodovia BA 099, km 20, Abrantes  
Camaçari, BA.  
CEP 42840-000 Brazil



The Millennium Inorganic Chemicals do Brasil S/A plant in Bahia is responsible for the production of titanium dioxide (TiO<sub>2</sub>) pigment for Cristal in Brazil. We are the second largest producer worldwide of TiO<sub>2</sub>, a brilliant white pigment manufactured from titanium, and used to give color to almost all materials. In the case of the paints, for example, the TiO<sub>2</sub> provides better coverage, brightness and durability for the formulas, making the modern paints more efficient and easier to apply; they also have a low environmental impact. The TiO<sub>2</sub> also provides the power of coverage and brightness for plastics and rubber products. Its range of applications extends to paper, ceramics, glass, leather, synthetic fibers and the formulation of colors for artistic paints. Our Titanium Dioxide pigment is sold under the brand name Tiona®.

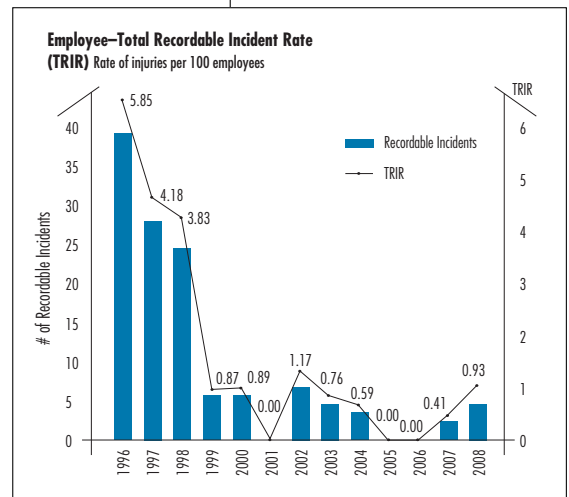
The plant in Bahia is located on the northern coast of the state, close to Arembepe, and 20 km from Salvador; it occupies an area of 837 hectares. It is the only integrated plant for TiO<sub>2</sub> in South America, and it produces the titanium dioxide pigment starting from a sulfate process, which utilizes sulfuric acid in order to extract the TiO<sub>2</sub> from the mineral. The raw pigment is then transformed into the final product with performance characteristics that are specific to each application, through a process that involves treatment of the surface with various chemical products and a combination of milling and micronization. Approximately 50% of the needs of the plant are met by a sulfuric acid unit installed at the factory. Another product made at the plant in Bahia is ferrous sulfate heptahydrate, used in the treatment of water and effluents, and serving also as the raw material for animal feed and other chemical products. The Bahia plant has ISO 9001 certification.

## Summary of our Performance

In line with concepts of sustainable development, the unit has as its focus the generation of value for its shareholders, a commitment to its neighboring communities and respect for the environment.

### PROVIDING ECONOMIC VALUE

- Approximately 500 full-time employees and contracted help.
- Payroll and annual benefits of about R\$ 51 million.
- Annual investment of approximately R\$ 185 million for the purchase of raw materials, parts and services.
- Annual real estate taxes of R\$ 580 million.



## RESPECTING SOCIAL CONCERNS

We believe that social responsibility requires a proactive effort in support of community needs.

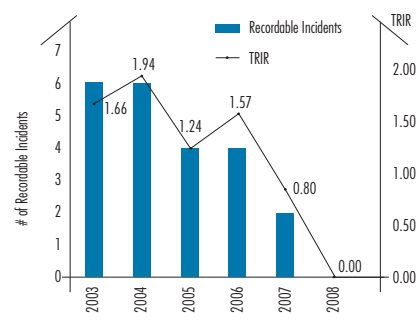
- **Education** – The plant supports education through a partnership with the communities of Areias, Arembepe, Jauá and Barra do Jacuípe. This relationship includes presentations regarding quality of life and environmental education, as well as out-of-class activities such as capoeira, artisan workshops, theater, school radio, factories that manufacture berimbaus and bags, school help and others, with the objective of developing new abilities.
- **Community Participation** – Representatives from the unit participate in consultative town meetings in the city of Camaçari, the village of Areias and the condominium complex of Interlagos, with the objective of maintaining a continuous dialogue with the local inhabitants.
- **Relationship with the Community** – In the Open Door Policy, university, public school and private school students, as well as members of the families of our employees, spend a day at the factory. During the visit, they learn about the process of titanium extraction, the production of TiO<sub>2</sub> and the company's environmental programs. About 600 people visit the factory each semester. In addition, for the past seven years, the Day of the Environment has been held at the factory, with a great Environmental Gymkhana, in which public school students from the region participate.
- **Volunteer Work** – Employees are encouraged to participate in volunteer programs developed by representative community associations. Various employees make presentations to the region's school students on matters such as first aid, citizenship, environmental education and safety at work and at home.
- **Productive Units** – Contributions to local organizations include the establishment of a library in Areias, where there is a Reading Club, as well as support for community child care units, public schools and the fishing villages. In addition, the unit sponsors the Marine Mammal Project and contributes to the Tamar Project, dedicated to the preservation of sea turtles.

## CARING FOR THE ENVIRONMENT

With our company committed to social responsibility, we operate our units in a way that protects the individual and the environment, and preserves the world for future generations. In consonance with the principles of the Responsible Behavior program, the company is committed to continual improvement in health, safety, the environment, reliability and communication with the community.

- **Safety Performance** – Since 2003, the Pole of Environmental Safety Prize of 5 Stars has been awarded upon the Bahia plant by Cofic – The Committee for Industrial Development of the Camaçari Pole in all of the prize categories.
- **Prevention** – The plant has a program for guaranteeing the safe operation and maintenance of its processes, focused on the prevention of accidents. Atmospheric emissions have been continuously reduced through such actions as the replacement of oil by natural gas, the installation of the Moist Oxidation Unit and the utilization of a new catalyzer that has improved the performance of the sulfuric acid plant.
- **Energy Efficiency** – The energy consumption per metric ton of the product manufactured at the Bahia plant fell by 21.3% from 2002 to 2008. Using its own turbo generator, the site produces about 20% of the required electric power.

Contractor–Total Recordable Incident Rate (TRIR)



National Titanium Dioxide Company Ltd. ("Cristal") and Millennium Inorganic Chemicals (MIC) combine to form the world's second-largest producer of titanium dioxide and a leading producer of titanium chemicals. Cristal and MIC operate eight manufacturing plants in six countries and employ nearly 4,000 people worldwide. MIC is a wholly owned subsidiary of Cristal.

Visit [www.cristalglobal.com](http://www.cristalglobal.com) for more information about the company and its products.

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