

COMPANY PROFILE



DOING MORE WITH LESS USING NANOTECHNOLOGY

DEFINE → DISCOVER → DEVELOP → DEMONSTRATE



WATER/WASTEWATER
TREATMENT



LIGHT-WEIGHT MECHANICAL
REINFORCEMENT



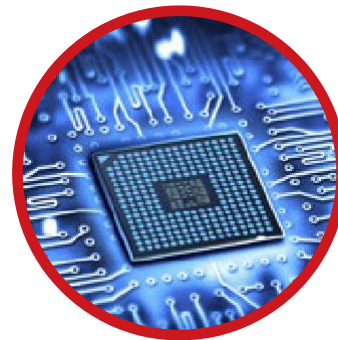
ENERGY STORAGE/
ELECTRODES



TRANSPORTATION /MILITARY
/ COATINGS



CIVIL ENGINEERING/
CONSTRUCTION



ELECTRONICS



AGRICULTURE / ENVIRONMENT /
SPECIALITY CHEMICALS



MINING /INDUSTRIAL
TAILINGS /EMULSIONS

SABINANO TECHNOLOGY APPLICATIONS

WHO WE ARE

SabiNano (Pty) Ltd (SabiNano) is a privately-owned South African nanotechnology company that manufactures and supplies high quality carbon-based nanomaterials such as carbon nanotubes (CNTs), graphene and other nanotech-based and eco-friendly materials/products, and specialty chemicals for research and innovation (R&I) and industrial applications.

SabiNano also conducts strategic R&I projects and consultancy services for nanotech-based and specialty products and services through private-private (B2B) and public-private partnerships (PPPs). We apply the Principles of Green Chemistry and Engineering and innovation to develop high quality products at an affordable cost for our customers and to provide sustainable solutions for the water-energy-agriculture/food nexus.

The company was founded in 2007, but officially became fully operational in 2018 with support from the Industrial Development Corporation (IDC). The Directors of SabiNano boast of extensive know-how and professional knowledge in the development and application of carbon nanomaterials (e.g., multiwalled CNTs, doped CNTs, graphene, graphene oxide, carbon spheres), diverse forms of other nanostructured materials (e.g., nanocellulose, electrospun nanofibers, nanotitanium dioxide, etc) with a wide range of dimensions (shapes and sizes), and high quality specialty chemicals and products (e.g., monocalcium phosphate, bionanoflocullants, coating oils, products for agricultural use).

SabiNano's head office and some of its manufacturing facilities and laboratories are currently located inside Mintek* in Strijdom Park, Randburg, Johannesburg, South Africa. Other large-scale manufacturing facilities are outsourced from ISO9001 accredited companies based in Johannesburg and Durban.

Our products and technologies have applications in energy storage, batteries, energy devices, coatings, water/wastewater treatment, mine/industry tailings, sand stabilization, lightweight/mechanical reinforcement, heat dissipation materials, civil engineering and construction, electronics, transportation, health, agriculture and other environmental and health related applications. Nanotechnology enables the creation of new products and technologies as well as improve the properties of existing products and technologies.

SabiNano has at its disposal a wide range of technologies and extensive know-how in all water-related, health, energy storage and environmental sectors that will guarantee its clients cost-efficient solutions meeting customer requirement.



* Main entrance to Mintek in Randburg, South Africa. SabiNano is located inside Mintek.



COMPANY MISSION

Our mission is to be a leading producer and supplier of high-quality nanotech-enhanced materials and products, and to provide nanotechnology expert services in Africa and other parts of the world, providing excellent customer service at an economical price to improve the lives of all people.

COMPETITIVE ADVANTAGE

- High quality, consistent properties, performance and supply.
- Scalable production to meet demand.
- Products can be supplied in powder form and in liquid forms.
- High aspect ratios, surface area, thermal stability, electronic and mechanical properties, etc.
- Delivery within 12 hours for smaller orders locally.
- Customer tailor-made materials and products.
- After-sales support and application innovation.
- Environmentally friendly and safe products.



COMPANY VISION

Our vision is to create new wealth through the manufacturing and supply of high-quality nanostructured materials and related products, technologies and services in Africa and beyond, creating thousands of sustainable employment opportunities.

BUSINESS PHILOSOPHY

Honesty, integrity and compliance to regulations are our leading principles. Operation excellence, implementation of quality controls, and lean management practices are our in-house precedence to assure product consistency and customer satisfaction.



THE TEAM (MANAGEMENT)



Boitumelo Makgabutlane

MTech, UNISA
PhD candidate, Wits University
Production Scientist



Sabelo Mhlanga

PhD, Wits University
Chief Executive and Technical Officer



Thembelihle Zwane

BCom, Regent Business School
Company administrator

SabiNano consists of a growing team of professionals that is committed to utilizing its expertise to add value to the attainment of the company's vision and mission through the execution of different roles that comprise of management, technical, and advisory. The organization's personnel have a wide range of competencies that expand to innovation capacity, as well as remarkable marketing and administration that aid in advancing the company's market and production capability. SabiNano's directors are well-versed in the research and development of a wide range of specialty products for research and industrial applications, which enables them to seamlessly contribute to innovation by harnessing nanotechnology.

SABINANO PRODUCTS & SERVICES

CARBON NANOTUBES

SabiNano manufactures and supplies high-quality carbon nanotubes (CNTs) on a commercial scale. Our multiwalled carbon nanotubes (SabinanoTubes™) have purities ranging between 90% (industrial grade) and >98% (research-grade) depending on customer needs and the end-use of the materials. Our unique CNT production process (patented) entails using a novel, environmentally friendly and economically viable process in a specially designed reactor. We supply in various quantities from grams to kilograms.

GRAPHENE AND GRAPHENE OXIDE

SabiNano has a dedicated inhouse team and strategic partners for design, R&D and production of nano materials with advanced material technologies and conducting studies on new generation products. These products are, but not limited to, carbon nanotubes and graphene for academic research and commercial projects. Graphene and graphene oxide have a wide range of applications across many industrial sectors including modern 4th industrial revolution (4IR) technologies. We have partnered with one of the largest graphene mass production facilities in the world, with an annual graphene production capacity of 100 tons. Our goal is to reach this production scale in SA to enable many of the 4IR technologies in which graphene finds its applications. Our high-quality graphene products are already applied in anticorrosion and light-weight composite materials.

NANOPARTICLES

Besides carbon nanotubes and graphene, we supply a wide range of nanoparticles for research and commercial projects. These include nanocellulose, single metal oxide nanoparticles, magnetic nanoparticles, element and alloy nanoparticles, multi-element oxide nanoparticles, rare earth materials etc. A complete list can be found in our website (www.sabinano.co.za).

COATING OILS AND SPECIALTY CHEMICALS

SabiNano manufactures and supplies high quality environmentally friendly and profit-friendly coating oils. Our Quantex ACT coating range is an anti-dusting additive designed to easily coat phosphate and sulphate-based granular fertilizers to provide free flowing dust free granules. The product is formulated with clean oils and special additives that meet the requirements of no polycyclic aromatic hydrocarbons (PAHs) and heavy metals as required by act 36 of 1947. QUANTEX ACT OIL is environmentally friendly with good long-term dust suppression.

We also supply high volume specialty chemicals and products through our certified strategic partners. These include raw materials for agricultural applications, wastewater treatment, self-sanitizing coatings, etc.

EQUIPMENT

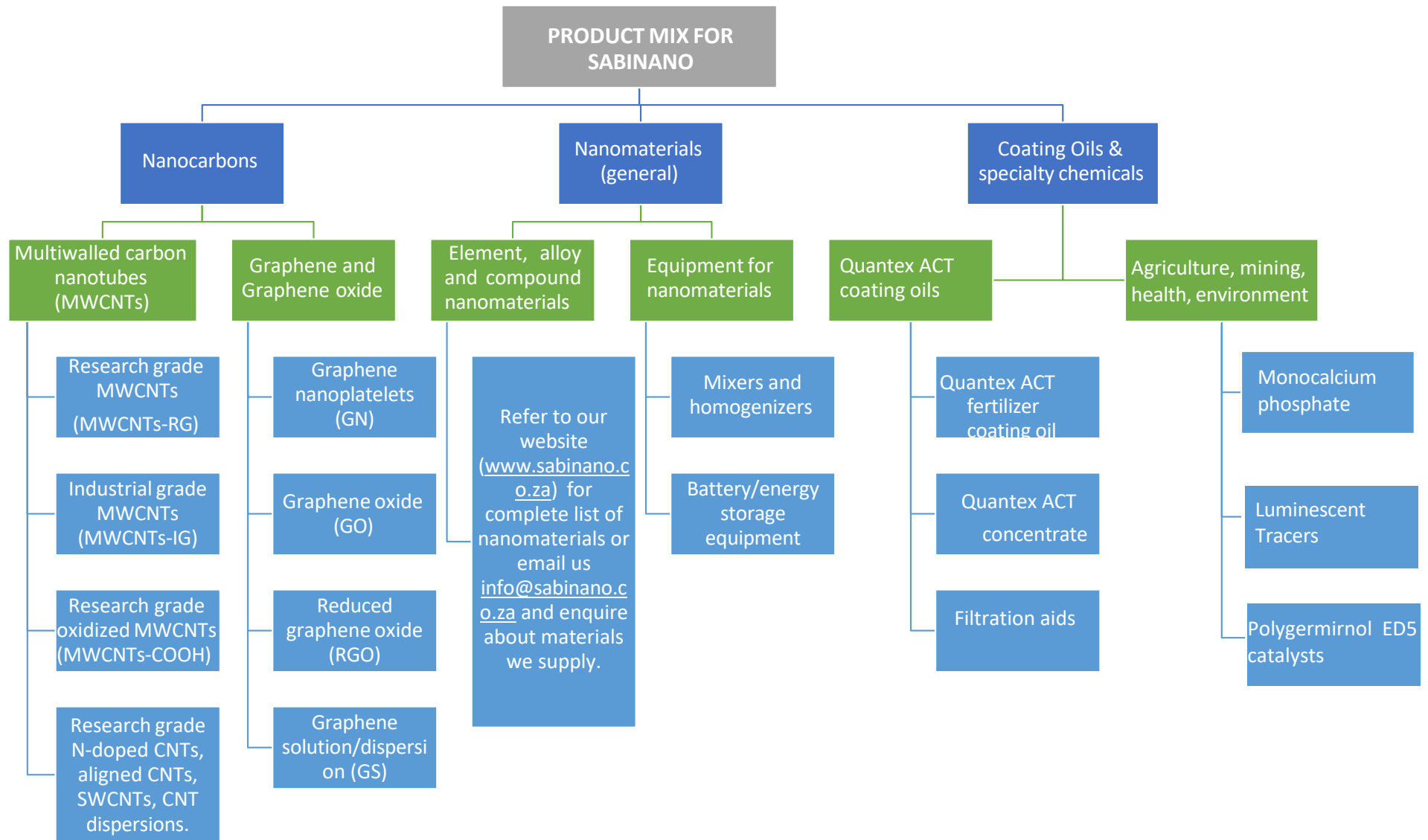
We supply high technology equipment for research laboratories, institutes, nanotechnology, and biotechnology companies. Our three-roll mills can serve various purposes such as homogenizing, venting or grinding nano and microparticle dispersions. It is an ideal tool for mixing electronic thick film inks, high performance ceramics, cosmetics, paints, printing inks, adhesives, epoxy, sealants, pharmaceuticals, chemicals, dental cosmetics, carbon/graphite, foods and many other viscous materials.

APPLICATION INNOVATION

Nanotechnology is a fast-growing field in research and industry with more applications discovered daily in the fourth industrial revolution (4IR). It presents an opportunity to solve complex problems such as those associated with the water-energy-food nexus. SabiNano's R&I division focuses on developing innovative nanomaterial-based technologies for energy, environmental and other applications including advanced nano-enhanced materials for various applications including wastewater treatment, health, building and construction, polymers, separation/filtration, adsorption, energy-storage, coatings, automotive/transport industries, electronics, binders, and cross-linkers, amongst others.



PRODUCT MIX



VALUE PROPOSITION

Customer Needs / Problem

Nanotechnology is applicable in a wide range of applications; from improving material properties, reducing raw materials required to creating new products and technologies. However, nanotechnologies are not readily available in South Africa (SA) and Africa in general because of it is a new modern technology, yet nanotech-enabled materials and products have been shown to be viable solutions that can help solve many of our 21st century problems. Nanotechnology is an enabler of the fourth industrial revolution (4IR) due to unique and exceptional chemical, physical, electronic and biological properties of nanotech-enhanced products.

Customer Promise (Solution)

We make a wide range of nanoproducts / specialty products readily accessible to researchers and manufacturers through our efficient manufacturing and distribution channels. Materials are available at small (research-scale) and large (industrial) scale at affordable price, making their use economically viable. The goal is to enable our clients to produce new products and technologies based on nanomaterials with ease and value for money. Our focus is on providing high quality nanomaterials and nanotechnology-enabled solutions (products and services), making it easy for customers to get what they need in a short period of time. We either produce locally and supply to our customers (e.g., coating oils, tracers, catalysts, emulsions and carbon nanotubes) or source from our reputable strategic collaborators (e.g., a wide range of other nanomaterials). We keep stock of commonly used products and it possible to deliver within 12 hours or receiving and order.

Product Solutions

Through inhouse research and development/innovation, we develop new products such as coating oils and tracers, building and road construction products, agriculture products, anticorrosion and self-sanitizing coatings, ultracapacitors, etc, as well as customization of bionanomaterials for wastewater treatment and related applications.



Get In Touch

200 Malibongwe Drive, Strijdom Park, Randburg,
2194 (inside Mintek)

Phone: +27 11 709 4798

Email (information): info@sabinano.co.za

Email (sales): sales@sabinano.co.za

Email (CEO): smhlanga@sabinano.co.za

Website: www.sabinano.co.za

We are B-BBEE level 1 contributor

