# Find the Sakai Chemical Group in Your Daily Life



#### **Electronic materials**

The multilayer ceramic capacitor is an indispensable part of electronic devices, such as smartphones. Barium titanate and high-purity barium carbonate are used in the capacitor to enable the part to store and discharge a larger amount of electricity. Our high-quality, minute products help capacitors be not only of large capacity but also highly reliable (trouble-free), as required amid the recent development of electric vehicles, the IoT and 5G.\*

\* IoT: Internet of things

5G: 5th-generation mobile communication system

#### **Plastic additives**

PVC stabilizers are used in a wide variety of products, such as pipes, window frames, insulating coatings for wires, to make PVC easier to shape and process and prevent it from deteriorating. These days, environment- and health-friendly non-lead stabilizers contribute to improving the lives of people in emerging economies in Southeast Asia and other regions, where the construction of infrastructure, including water supply and sewerage systems, is in progress.

#### Titanium dioxide and zinc products

Sakai Chemical Industry was founded as a manufacturer of zinc oxide, which was a material for white powder. After that, in pursuit of quality white pigment, our predecessors reached titanium dioxide. This substance is now used as the most stable pigment in a wide variety of applications, including paint, ink and fiber, and supports people's lives in many aspects. We focus especially on the manufacture of cosmetic materials, which was Sakai Chemical Industry's initial business. Microfine titanium dioxide and ultrafine zinc oxide produced through our proprietary powder processing technology block harmful UV rays and help make your skin more beautiful and healthier.

#### Hygiene materials

The use of disposable diapers has now spread widely in parallel with the economic growth of developing countries and the progress of population aging, and demand for them is growing globally. We manufacture breathable film used in disposable diapers and sanitary napkins, and sell a wide lineup of hygiene materials, including nonwoven fabric.



### People-friendly



- Ultra-weather-resistant titanium dioxide for exterior walls
- UV-ray-blocking materials for building material coatings • Various stabilizers for PVC window frames, gutters and downspouts
- Various stabilizers for wallpaper and flooring materials

#### 👖 Home medicines and health food 📩

- Cold medicines
- Digestive medicines
- Health food (such as designated health food and cough drops)

#### 2 Disposable diapers and hygiene materials

- Nonwoven fabric
- Breathable film
- Highly absorbent plastic
- Nickel catalysts for adhesive production

<u>3</u> Bath salts 📩

- Dispersing elements for bath salts
- 🚺 Food 🗛
- UV-ray-blocking materials for food packages

#### 5 Eyeglasses 🗔

- Zirconia-based dispersing elements for optical materials
- Materials for plastic lenses

## Cosmetics 🙇

- Titanium dioxide and zinc oxide for sunscreen
- Flake-shaped barium sulfate for foundation
- Fluorescent ingredients for cosmetics.

#### Hospital 📩

- Barium X-ray contrast agents
- Peptic ulcer agents
- intermediates

#### ଃ Waste incineration facility 🌿

9 Digital devices and home appliances. such as computers, mobile devices (smartphones, mobile phones, etc.), and flat-screen TVs

#### • Dielectric materials for multilayer ceramic capacitors

- Plastic flame retardants.
- Silica for semiconductor sealing materials and functional film
- Ink materials for printed circuit boards
- Zirconia-based dispersing elements for optical materials
- Adhesives for flexible printed circuit boards
- Materials for LCD film

#### 10 Automobile

- Titanium dioxide and barium sulfate for coatings
- Zinc oxide for tires (rubber)
- Barium sulfate for brake friction pads
- Dielectric materials for multilayer ceramic capacitors
- Lubricant additives
- Adhesives for flexible printed circuit boards
- Masterbatch for headlight extensions



#### Catalysts

DeNOx catalysts contribute to protecting the global environment by removing nitrogen oxides (NOx) emitted from waste incineration facilities and thermal power plants. Process catalysts (nickel catalysts) are used for petroleum resin hydrogeneration in the process of manufacturing optical film and adhesives for disposable diapers. We are also working to develop heavy-metal-free polyester polymerization catalysts and other novel catalysts that help resolve energy issues.

### **Healthcare**

**Organic chemicals** 

B-Mercaptopropionic acid, an organic sulfur compound that only Sakai Chemical Industry manufactures in Japan, is

used to increase the refractive indices of plastic eyeglasses,

nowadays contributing to improving the vision of people in

emerging countries. We are also engaged in the

contract-based manufacturing and development of active

pharmaceutical ingredients and intermediates according to

the client company's development stage, from process development to commercial production, to help provide

patients with reliable drugs as early as possible.

In the healthcare area in general, our strength lies in the digestive field. We have long provided barium X-ray contrast agents, in which we have a large share of the market, as well as ulcer agents. We also sell endoscope sterilizers, thereby supporting the medical field. To capture needs in an age of self-medication, while providing OTC drugs, including the Kaigen cold remedy, and health food, we have recently entered into new fields, including the joint production of fillers for artificial bones, the field of cosmetic medicine (supplements and sunscreen), and clinical cancer examinations based on blood and saliva.

#### **Research and development**

Focusing on SDG 7 "Affordable and Clean Energy," SDG 9 "Industry, Innovation and Infrastructure," and SDG 13 "Climate Action," we are developing fuel cell materials and secondary battery materials for energy storage in anticipation of the advent of a hydrogen society. We also participate in industry-academia-government collaboration in tackling the long-term goal of realizing the practical use of carbon recycling technology, which is expected to help solve energy issues and global warming-related issues in the future.

# Endoscope sterilizers

• Active pharmaceutical ingredients and

- DeNOx catalysts (NOx removal catalysts)
- Dioxin decomposition catalysts