Functional Chemicals Business

Our work focuses on the coming generation of products offering environmental friendliness and energy efficiency, with the aim of "turning a crisis into opportunities."

Safeguarding comfortable lifestyles with well-tested harmless products

At the Functional Chemicals Group, our principal technologies are directed toward the development of environmentally friendly products.

Today, no electronic product can function without semiconductors. Nippon Kayaku's *NC-3000 Epoxy Resin* series is used to protect the core of these semiconductors in difficult conditions. *NC-3000* contains no halogen, a source of dioxin, which means that even after its disposal, it poses no threat to the environment.

Light Emitting Diodes (LED) are increasing in popularity as an energy efficient device able to provide very bright light. Our group has succeeded in developing *Alicyclic Epoxy* to meet demands for a highly transparent and durable resin for LED lighting applications. Expanding use of LED lights is supported by our firm's resin technology.

Solar cells are a widely recognized example of recyclable energy. We are utilizing our long experience in dye technology to develop *Dye-sensitized Solar Cells*. This should reduce the cost and increase the use of solar cells.

We are also developing a Green Procurement System that will eliminate polluting substances from our raw materials and our production processes. Such potential pollutants can thus be prevented from reaching the market.

Semiconductors

LEDs: The next-generation energy efficient lighting technology

TOPICS

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LED Sealing Material, our way of helping the world conserve energy

With their low power consumption, long life, and the fact that they do not contain mercury, LEDs are expected to expand rapidly as the lighting device of the future. However, the sensitive LED elements and circuits must be prevented from being exposed to the environment and in this, *LED Sealing Material* plays a vital role.

We have successfully developed *Alicyclic Epoxy*; a key ingredient used in the production of *LED Sealing Material*, and have also, established an environmentally friendly process to produce this key material. Benefitting from our material compounding technology and there of, acquired through developing the *Alicyclic Epoxy*, we are now working on further improving *LED Sealing Materials* to keep in front of the ever-increasing quality requirements of the market.