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Development of fluorine-free phosphonium-based antistatic agents

We at Nippon Chemical Industrial Co., Ltd., hereby announce that we have developed fluorine-free phosphonium-based antistatic agents in response to PFAS regulations.

◆Background behind the development of this technology

At this time, we are working on business expansion and strengthening the business structure, promotion of globalization, and new value creation consistent with the policy set forth in our medium-term management plan of “Promotion of the Growth Strategy and New Value Creation.” In response to the growth in worldwide regulations governing PFAS and as different countries impose various requirements in line with the enactment of these regulations, we harnessed more than three decades’ worth of technology for the synthesis of phosphine derivatives to successfully develop fluorine-free phosphonium-based antistatic agents. While the product that we developed constitutes an ionic liquid formulation for compatibility with various resins, we have also begun developing numerous other grades and are pushing forth with the development work in order to satisfy client needs.

As PFAS regulations continue to expand, we are accelerating the establishment of a development framework for launching full-scale production at the Fukushima No. 2 Factory (Tamura-gun, Fukushima) as soon as possible in order to have this product evaluated by numerous concerned parties. We are committed to working together with you for the satisfaction of PFAS regulations through the development of this product and will continue to make strides for realizing a sustainable society.

◆Appearance and property



Item	Unit	Actual measurement
Properties		Liquid state
Decomposition Onset Temperature	°C	420
Viscosity	mPa · s	7,600
Surface Resistivity (acrylic coating)	Ω/□	1.2×10 ⁹