

December 26th, 2017

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## MOU Concluded for Feasibility Study of Surfactant (SOFTANOL) Development in Thailand

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NIPPON SHOKUBAI CO., LTD. ("Nippon Shokubai", Head Office: Osaka, President: Yujiro Goto), has agreed to jointly conduct a feasibility study ("F/S") with PTT Global Chemical Public Company Ltd. ("PTTGC", Head Office: Bangkok, CEO: Supattanapong Punmeechaow), and MITSUI & CO., LTD. ("Mitsui", Head Office: Tokyo, President and CEO: Tatsuo Yasunaga) with regard to secondary alcohol ethoxylates (surfactants named SOFTANOL, derivatives of ethylene oxide), business development in Thailand, and recently entered into a Memorandum of Understanding ("MOU").

Under this MOU, Nippon Shokubai, PTTGC, and Mitsui will start the F/S of manufacturing and sales of SOFTANOL products in Thailand, and plan to make an investment judgment by March 2019.

The F/S will be carried out with the aim of launching commercial operation within 2022 in Hemaraj Eastern Industrial Estate, which is located in Rayong, Thailand. A key raw material, ethylene oxide, will be supplied by PTTGC, which operates in the same industrial park.

The SOFTANOL series are unique surfactants which have high detergency at low temperature, outstanding wetting power, ease of handling due to low viscosity, and excellent biodegradability. They are used as materials for a wide variety of end products, such as homecare liquid detergents and industrial cleaning agents. As further growth in demand for SOFTANOL products is expected, Nippon Shokubai will steadily pursue the F/S in order to expand ethylene oxide business.

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ABOUT NIPPON SHOKUBAI: Since 1941, Nippon Shokubai has grown up its business with unique catalyst technology. Nippon Shokubai has supplied, for example, Ethylene oxide, Acrylic acid, automobile catalyst, process catalyst and so on. Among all, our global market share of superabsorbent polymer comes up to No.1, now. Nippon Shokubai is a global chemical company with its corporate mission as "Providing affluence and comfort to people and society, with our unique technology".

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