

October 24, 2018

To whom it may concern

**Production Start of Fluralaner, the Active Ingredient of a Veterinary
Pharmaceutical at Onoda Plant**

Nissan Chemical Corporation (head office: Chuo-ku, Tokyo; president: Kojiro Kinoshita) announces that the company has installed a new plant for the production of fluralaner, an active ingredient for a veterinary pharmaceutical, at the Onoda Plant and has received a manufacturing license. In addition to the current toll manufacturing at two outsourced sites, the company will begin manufacturing active pharmaceutical ingredients in-house to ensure stable supply, and to respond to the increase of fluralaner demand.

Bravecto[®]*1 is an ectoparasiticide for companion animals distributed by MSD Animal Health^{*2}, the animal health division of Merck & Co, with fluralaner as its active ingredient. It has remarkable characteristics: it acts rapidly against major species of fleas and ticks and has a longer insecticidal effect than existing products that are usually used monthly. The effect of Bravecto[®] lasts for 12 weeks per dose. It is sold in over 85 countries including Japan.

Related news release

[May 10, 2017](#) [Production Capacity Expansion for Fluralaner, the Active Ingredient of a Veterinary
Pharmaceutical](#)

[July 12, 2018](#) [MSD Animal Health Announcement of Marketing Approval from European
Commission for BRAVECTO[®] Plus for Cats](#)

*1 Bravecto[®] is a registered trade mark of Intervet International B.V., a subsidiary of Merck & Co., Inc.

*2 MSD Animal Health (head office: New Jersey, USA) is the global animal health division of Merck & Co., Inc., a company that has led the world in health management for 125 years. In more than 150 countries, MSD Animal Health provides information and services concerning numerous different veterinary pharmaceuticals, vaccines and animal health management to veterinarians, farm operators, pet owners, public offices and other clients.

Contact information for inquiries on the above
Nissan Chemical Corporation Corporate Planning Department CSR & Public Relations Office E-mail: csr_pr@nissanchem.co.jp