

ABSTRACT

The present invention has a purpose to achieve desired spray characteristics when a pharmaceutical formulation is sprayed by means of a rhinal spray nozzle used for a metered-dose syringe-based squirt.

The present invention relates to a rhinal spray nozzle used for a medical syringe having a tip opening in fluid communication with a syringe barrel for storing a pharmaceutical formulation. The rhinal spray nozzle comprises a hollow nozzle body having a tip portion defining a nozzle orifice thereon, a solid packing rod arranged within the nozzle body, and a nozzle chamber defined between the packing rod and the nozzle body to allow a fluid communication between the tip opening and the nozzle orifice, wherein the formulation comprises the gel material containing viscosity modification agent and carboxy vinyl polymer of which viscosity is modified by applying an exogenous shear force, and wherein the nozzle orifice has a diameter in a range between 0.25 mm and 0.30 mm.