CLAIMS

1. A drug delivery device comprising:

a canister containing a drug formulation and having a discharge valve and a valve stem defining a valve stem passage through which the drug formulation is selectively discharged;

a desiccant housing attached to the canister with the valve stem extending through the desiccant housing; and

a desiccant material provided in the desiccant housing in fluid communication with the valve stem passage.

2. The drug delivery device of the preceding claim, further comprising:

a base housing including an inhalation passageway through which the drug formulation is discharged during an inhalation event; and

a valve stem block including a discharge orifice in fluid communication with the inhalation passageway from which the drug formulation is ejected during the inhalation event after passing through the valve stem passage, and wherein the canister, the desiccant housing and the desiccant material form a cartridge that is removably installable in the base housing with the valve stem of the canister engaging the valve stem block when the cartridge is installed.

3. The drug delivery device of the preceding claim wherein, when the cartridge is installed, the desiccant material extends from a location above the discharge orifice of the valve stem block to a location below the discharge orifice.

4. The drug delivery device of any one of the three preceding claims wherein the valve stem of the canister includes an aperture in a side thereof, and wherein, when the valve stem is in an expanded position, the valve

stem passage is in fluid communication with a desiccant chamber via the aperture in the side of the valve stem.

5. The drug delivery device of claim 4 wherein the canister is removably installable in the desiccant housing and a canister seal is positioned between the desiccant housing and the canister to assist in at least partially isolating the desiccant chamber from an external environment of the drug delivery device.

6. The drug delivery device of claim 4 or 5 wherein the desiccant housing includes a stem seal formed integrally therewith through which the valve stem extends, the stem seal assisting in at least partially isolating the desiccant chamber from an external environment of the drug delivery device.

7. The drug delivery device of any one of the six preceding claims wherein the desiccant material is an annular or semi-annular molded component.

8. The drug delivery device of any one of the seven preceding claims wherein the desiccant material is a semi-annular molded component, which partially encircles the valve stem and extends beyond a terminal end of the valve stem.

9. The drug delivery device of any one of the eight preceding claims wherein the desiccant housing and the desiccant material are correspondingly shaped, and wherein each of the desiccant housing and the desiccant material extend beyond a terminal end of the valve stem.

10. The drug delivery device of any one of the nine preceding claims wherein, apart from when the valve stem is depressed, the desiccant

material is arranged to continuously remove moisture at least from the valve stem passage defined by the valve stem throughout the usable life of the drug formulation contained in the canister.

11. The drug delivery device of any one of claims 4 to 6 or any of claims 7 to 10 when dependent on claim 4 wherein, when the valve stem of the canister is fully depressed, the desiccant chamber is isolated from the valve stem passage and an external environment of the drug delivery device.

12. The drug delivery device of claim 1, further comprising:

a base housing including an inhalation passageway through which the drug formulation is discharged during an inhalation event;

a mouthpiece aperture in fluid communication with the inhalation passageway through which the aerosolized matter is discharged during an inhalation event; and

a desiccant chamber within the desiccant housing in which the desiccant material is contained, the desiccant chamber being in fluid communication with the discharge passageway at least when the aerosol delivery unit is in a storage configuration.

13. The drug delivery device of claim 12, wherein the desiccant housing and the canister collectively define the desiccant chamber within which the desiccant material is contained.

14. The drug delivery device of claim 12, further comprising:

a seal member movable between a closed position, in which the seal member covers a discharge outlet of the discharge passageway to isolate the discharge passageway from the inhalation passageway, and an open position, in which the discharge outlet is in fluid communication with the inhalation passageway to allow the aerosolized matter to pass from the

discharge passageway into the inhalation passageway for delivery to a user through the mouthpiece aperture.