CLAIMS:

1. A device for delivery of a composition to an airway of a subject, the device comprising, in fluid communication:

a gas inlet;

a gas outlet;

an actuator having an upper surface and a lower surface;

a composition receptacle adapted to receive the composition; and

a dispersion chamber;

wherein the actuator is configurable between:

(a) a first configuration wherein the lower surface of the actuator is seated adjacent the gas inlet to restrict gas flow entering the device and wherein the upper surface of the actuator is adjacent to a lower extent of the composition receptacle to allow the composition to be located in the composition receptacle; and

(b) a second configuration wherein the lower surface of the actuator is displaced in the direction of the gas outlet, compared with the first configuration, to open a gas flow path into the device through the gas inlet and wherein the upper surface of the actuator is adjacent to an upper extent of the composition receptacle to displace the composition into the dispersion chamber; and

wherein the actuator is configurable between the first configuration and the second configuration via each of:

(i) application of positive pressure via the gas inlet; and

(ii) application of negative pressure via the gas outlet.

2. The device of claim 1, wherein in the first configuration the actuator is located substantially outside of the composition receptacle; and in the second configuration at least a portion of the actuator is located substantially inside of the composition receptacle.

3. The device of claim 1, wherein the composition receptacle is adapted to receive, in an interference fit or clearance fit, a container comprising the composition, when the actuator is in the first configuration.

4. The device of claim 1, wherein the dispersion chamber is adapted to receive the composition for delivery to the subject or a container comprising the composition, and to disperse the composition into gas flow between the gas inlet and the gas outlet, for delivery to the airway of the subject, and wherein the dispersion chamber is in fluid communication with the gas inlet, gas outlet, actuator, and composition receptacle.

5. The device of claim 4, wherein the dispersion chamber is adapted to receive the composition or a container comprising the composition when the actuator is configured from the first configuration to the second configuration.

6. The device of claim 1, wherein the dispersion chamber is continuous with one or more chamber ports through which gas flow between the gas inlet and the gas outlet may enter.

7. The device of claim 6, wherein the one or more chamber ports provide a continuous flow path, in the second configuration, between the gas inlet and the dispersion chamber.

8. The device of claim 1, wherein the dispersion chamber comprises one or more protrusions projecting from a surface thereof.

9. The device of claim 1, further comprising at least one primer adapted to release the composition for delivery to the airway of the subject from a container comprising the composition.

10. The device of claim 9, wherein the at least one primer comprises at least one pin or blade adapted to pierce or cut the container comprising the composition for delivery to the airway of the subject using the delivery device, or to pierce or cut a seal, membrane, or shell thereof.

11. The device of claim 9, further comprising a removable cap located over

the gas outlet wherein removal of the removable cap causes activation of the at least one primer.

12. The device of claim 1, further comprising a deagglomerator located substantially adjacent to the dispersion chamber and in fluid communication with the gas inlet, gas outlet, actuator, composition receptacle and dispersion chamber.

13. A device for delivery of a composition to an airway of a subject, the device comprising, in fluid communication:
a gas inlet;
a gas outlet;
a floating piston actuator having an upper surface and a lower surface;
a composition receptacle adapted to receive the composition;
a dispersion chamber located between the composition receptacle and the gas outlet; and
one or more chamber ports forming a gas flow pathway between the gas inlet and the dispersion chamber;
wherein the floating piston actuator can be configured between:

(a) a first configuration wherein the lower surface of the floating piston actuator is seated adjacent the gas inlet to restrict gas flow entering the one or more chamber ports and wherein the upper surface of the actuator is adjacent to a lower extent of the composition receptacle to allow the composition to be located in the composition receptacle; and

(b) a second configuration wherein the lower surface of the floating piston actuator is displaced in the direction of the gas outlet, compared with the first configuration, to open a gas flow path through the one or more chamber ports and wherein the upper surface of the actuator is adjacent an upper extent of the composition receptacle to displace the composition into the dispersion chamber; and
wherein the actuator can be configured between the first configuration and the second configuration via each of:

(i) application of positive pressure via the gas inlet; and
(ii) application of negative pressure via the gas outlet.

14. The device of claim 13, wherein movement of the floating piston actuator into the second configuration causes it to be located within the composition receptacle.

15. The device of claim 13, wherein, when in the first configuration, the lower surface of the floating piston actuator is sealingly seated on a lip or flange of an inner surface of the gas inlet.

16. A device for delivery of a composition to an airway of a subject, the device comprising, in fluid communication:
a gas inlet located at a first end of the device, to allow a gas to enter the device, and having a lip or flange on an inner surface thereof;
a gas outlet located at a second end of the device, opposite the first end;
a floating piston actuator having an upper surface and a lower surface;
a composition receptacle adapted to receive the composition;
a dispersion chamber located between the composition receptacle and the gas outlet;
one or more chamber ports forming a non-linear gas flow pathway between the gas inlet and the dispersion chamber; and
a deagglomerator located between an upper extent of the dispersion chamber and the gas outlet,
wherein the floating piston actuator can be configured between:

(a) a first configuration wherein the lower surface of the floating piston actuator is sealingly seated on the lip or flange of the gas inlet to restrict gas flow entering the one or more chamber ports and wherein the upper surface of the actuator is adjacent a lower extent of the composition receptacle to allow the composition to be located in the composition receptacle; and

(b) a second configuration wherein the lower surface of the floating piston actuator is displaced in the direction of the gas outlet, compared with the first configuration, to open a gas flow path through the one or more

chamber ports and wherein the upper surface of the actuator is adjacent an upper extent of the composition receptacle to displace the composition into the dispersion chamber; and

wherein the actuator can be configured between the first configuration and the second configuration via each of:

(i) application of positive pressure via the gas inlet; and

(ii) application of negative pressure via the gas outlet.