What is claimed is:

1. An adapter comprising:

a body comprising:

a first port configured to connect with a first container to receive a first substance,

a second port configured to connect with a second container to receive a second substance,

a third port configured to connect with a recipient container to output a mixture of the first substance and the second substance, and

a mixing chamber having a first portion in communication with the first port and the second port and a second portion in communication with the third port; and

a mixing pin inserted into the mixing chamber wherein the mixing pin at least partially defines at least one microfluidic path for mixing the first substance and the second substance.

2. The adapter of claim 1, wherein the body further comprises an opening in the first portion of the mixing chamber configured to receive the mixing pin.

3. The adapter of claim 1, wherein the mixing pin is removable from the mixing chamber.

4. The adapter of claim 1, wherein the mixing pin has a flange, and the body has a recess configured to receive the flange.

5. The adapter of claim 1, wherein the mixing pin includes a sealing portion configured to seal the first portion of the mixing chamber.

6. The adapter of claim 1, wherein the first port and/or the second port are substantially parallel to the mixing chamber.

7. The adapter of claim 1, wherein the body further comprises:

a first branch channel in communication with the first port and extending at a first angle relative to the mixing chamber, and

a second branch channel in communication with the second port and extending at a second angle relative to the mixing chamber.

8. The adapter of claim 7, wherein the first branch channel is configured to guide the first substance toward the mixing pin, and the second branch channel is configured to guide the second substance toward the mixing pin.

9. The adapter of claim 1, wherein the mixing pin defines a first edge surface formed by a first surface and a second surface and a second edge formed by a third surface and a fourth surface, the first edge is configured to divide the first substance, and the second edge is configured to divide the second substance.

10. The adapter of claim 1, wherein the first port is a female Luer connector, the second port is a female Luer connector, and the third port is a male Luer connector.

11. The adapter of claim 1, wherein the at least one microfluidic path is tortuous.

12. The adapter of claim 1, wherein the at least microfluidic path is formed by at least one channel.

13. The adapter of claim 12, wherein the at least one channel includes at least one helical channel.

14. The adapter of claim 13, wherein the at least one helical channel includes a first helical channel and a second helical channel, wherein the first helical channel and the second helical channel intersect along a longitudinal length of the mixing pin at a plurality of intersection points.

15. The adapter of claim 12, wherein the at least one channel extends through the mixing pin.

16. The adapter of claim 12, wherein the mixing pin includes a plurality of protrusions that extend at least partially around a circumference of the mixing pin and define at least a portion of the at least one channel.

17. The adapter of claim 16, wherein the plurality of protrusions extends uniformly around the circumference of the mixing pin and forms at least one radial gap with respect to an inner surface of the body, the at least one radial gap forming at least a portion of the at least one channel.

18. The adapter of claim 16, wherein each of the plurality of protrusions have at least one first surface configured to create a seal against an inner surface of the body and at least one second surface forming at least one radial gap with respect to the inner surface of the body, the at least one radial gap forming at least a portion of the at least one channel.