

Designation	'381 claim element or limitation
[1.P]	1. A container system for releasably storing a substance, comprising:
[1.1]	a) a vial comprising
[1.2]	a first open end for receiving a sample,
[1.3]	a second end comprising a sample storage chamber and
[1.4]	a piercing member,
[1.5]	wherein said piercing member comprises a side wall, a first cutting edge extending from a first pointed corner to a second corner that defines the intersection between said cutting edge and said side wall; and
[1.6]	b) a lid configured to removably engage said vial, said lid comprising
[1.7]	a reservoir for holding the substance, and
[1.8]	a pierceable membrane sealing the substance within said reservoir,
[1.9]	wherein, when said system is closed by removable engagement of said vial with said lid, said vial and said lid are movable to a piercing position in which the piercing member disrupts the pierceable membrane to allow fluid communication between said reservoir and said chamber,
[1.10]	wherein the chamber is sealed against leakage to the outside of the container system in the piercing position.

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[2.1]	2. <i>The container system of claim 1,</i> wherein said lid comprises a wall defining all or a portion of the perimeter of said reservoir, said wall having a sealing surface for sealingly attaching said pierceable membrane.
[3.1]	3. <i>The container system of claim 1,</i> wherein said reservoir is configured to retain about 1 ml to about 4 ml of said substance.
[4.1]	4. <i>The container system of claim 1,</i> wherein said pierceable membrane is inert.
[5.1]	5. <i>The container system of claim 1,</i> wherein said pierceable membrane remains intact and pierceable at temperatures of from about -80°C. to about 70°C.
[6.1]	6. <i>The container system of claim 1,</i> wherein said pierceable membrane is sealingly attached to said sealing surface by an adhesive, a heat-sealing treatment, a fastener, or any combinations thereof.
[7.1]	7. <i>The container system of claim 1,</i> wherein the width of said first end is equivalent to the width of said second end.
[8.1]	8. <i>The container system of claim 1,</i> wherein said first end is generally wider than said second end.
[9.1]	9. <i>The container system of claim 1,</i> wherein said chamber is configured to receive about 1 ml to about 16 ml of said sample.
[10.1]	10. <i>The container system of claim 9,</i> wherein said chamber is configured to receive about 1 ml to about 4 ml of said sample.
[11.1]	11. <i>The container system of claim 1,</i> wherein the said piercing member extends from a base surface of said chamber.
[12.1]	12. <i>The container system of claim 11,</i> wherein said piercing member extends approximately perpendicularly from said base.
[13.1]	13. <i>The container system of claim 11,</i> wherein said piercing member is angled inwardly or outwardly toward said first open end of said vial.

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[14.1]	14. <i>The container system of claim 1, wherein said side wall further includes a second cutting edge.</i>
[15.1]	15. <i>The container system of claim 1, wherein said vial comprises a plurality of piercing members.</i>
[16.1]	16. <i>The container system of claim 15, wherein said vial comprises three piercing members.</i>
[17.1]	17. <i>The container system of claim 15, wherein said vial comprises two piercing members.</i>
[18.1]	18. <i>The container system of claim 1, wherein said system comprises sealing means for sealing said chamber against leakage to the outside of said container system following movement of said container system to said piercing position.</i>
[19.1]	19. <i>The container system of claim 18, wherein said sealing means comprises a sealing wall about the interior circumference of said lid that sealingly engages a surface of said vial when the system is in said piercing position.</i>
[20.1]	20. <i>The container system of claim 1, wherein said vial and said lid are sized for shipping in both an unattached state and an attached state.</i>
[39.1]	39. <i>The container system of claim 1 or 21, wherein said substance is a composition for the stabilization and recovery of a nucleic acid from a biological sample.</i>
[40.1]	40. <i>The container system of claim 39, wherein said nucleic acid is DNA or RNA.</i>
[41.P]	41. A method of combining a substance with a biological sample, comprising:
[41.1]	(a) providing the container system of claim 1;
[41.2]	(b) providing the sample to the chamber in the vial; and
[41.3]	(c) closing said container system by removably attaching said lid to said vial; and
[41.4]	(d) piercing said membrane to release said substance into said chamber by moving said lid and said vial to said piercing position.
[43.1]	43. <i>The method of claim 41 or 42, wherein the substance is a nucleic acid preserving substance.</i>
[44.1]	44. <i>The method of claim 41 or 42, wherein the sample is a</i>

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	biological sample.
[45.1]	45. <i>The method of claim 41 or 42, for archiving the sample.</i>
[46.P]	46. A kit for sample collection and storage, comprising:
[46.1]	a) a container system of claim 1 or 21; and
[46.2]	b) instructions for the use thereof.
[47.1]	47. <i>The container system of claim 1, wherein the substance is a liquid.</i>
[49.1]	49. <i>The container system of claim 1, additionally comprising a solid or semi-solid material within said vial and maintained separate from the substance in the reservoir of said lid until said pierceable membrane is disrupted.</i>