Disclosure of the Invention

[0008] Preferred methods and systems provide for a container of saturated liquid suppressant, for example Novec 1230, at an operative pressure for a firefighting suppression system. The preferred method and systems provide for charging of a container to a preferred operative head space pressure without the need for mechanized mixing. By eliminating mechanized mixing from the charging process, the preferred systems and methods can provide for on-site filling and pressurization of liquid suppressant within a time comparable or better than available under conventional methods. Additionally, the preferred systems use a calibrated pressure gauge to eliminate the need for a weigh scale at the fill or receiving container.

[0009] One preferred method of charging a container of a suppressant system without a mechanized mixing process includes providing a pressurized container containing nitrogen gas at a transformative pressure for a fill amount of liquid suppressant; and adding the fill amount of firefighting liquid suppressant to the pressurized container from a pressurized source of the liquid suppressant. Preferred embodiments of the fill method include first filling the receiving container with nitrogen and adding liquid suppressant to the container last from a pressurized liquid suppressant source.

[0010] In another preferred aspect, a system is provided for filling and pressurizing a container with firefighting liquid suppressant. The preferred system includes a receiving container defining an internal volume; a supply of nitrogen gas coupled to the receiving container for positively pressurizing the internal volume of the container to an internal pressure; a pressurized supply of liquid suppressant; and a transfer pump coupled to the receiving container and the supply of liquid suppressant for transferring the pressurized liquid suppressant to the receiving container against the internal pressure and define a head space