

FLUID STORAGE AND DISPENSING SYSTEMS AND PROCESSES

ABSTRACT

Fluid storage and dispensing systems and processes involving various devices, structures and arrangements, as well as techniques and methods, for fluid storage and dispensing, including, without limitation, pre-connect verification couplings that are usefully employed in application to fluid storage and dispensing packages, to ensure proper coupling and avoid fluid contamination issues, empty detect systems that are usefully employed for fluid storage and dispensing packages incorporating liners that are pressure-compressed in the fluid dispensing operation, ergonomically enhanced structures for facilitating removal of a dispense connector from a capped vessel, cap integrity assurance systems for preventing misuse of vessel caps, and keycoding systems for ensuring coupling of proper dispense assemblies and vessels. Fluid storage and dispensing systems are described, which achieve zero or near-zero headspace character, and prevent or ameliorate solubilization effects in liquid dispensing from liners in overpack vessels.

Fig. 2