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(54) Title: USING CARBON DIOXIDE REGULATORS TO EXTEND THE SHELF LIFE OF PLASTIC PACKAGING

(57) Abstract: A method for replenishing carbon dioxide gas in a carbonated beverage container where a carbon dioxide regulator releases carbon dioxide at a rate approximately equal to the rate of carbon dioxide loss from said container. Also disclosed is packaging system for maintaining a consistent pressure of a carbonated beverage comprising a closure, a plastic container, and a carbon dioxide regulator. Also disclosed is a method for making a packaging system for maintaining a consistent pressure in a carbonated beverage comprising overmolding a preform around an assembly for a carbon dioxide regulator, or blending a carbon dioxide regulator into the plastic material used to form the body of a container for said carbonated beverage. Also disclosed is carbon dioxide regulator composition for replenishing carbon dioxide gas in a carbonated beverage container comprising polymeric carbonates, organic carbonates, or materials that absorb and subsequently release carbon dioxide.



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