

ABSTRACT

Saverius Chandra Dwitama (00000023013)

DEVELOPMENT OF POWDERED DRINK ICE CREAM MIX WITH ADDITION OF SEVERAL FOOD ADDITIVES

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Incorporation of powdered drinks into instant ice cream mix can bring a once popular flavorful yet simple drink into a better version. Instant ice cream mix can have a similar sensory property as a commercially produced ice cream with the help of many food additives and stabilizers. Maltodextrin is widely used as a fat replacer in the ice cream industry as it helps by emulating fat like properties and gives ice cream with low amount of fat the mouthfeel and smoothness that it needs. Stabilizers can help by further improving the smoothness of the ice cream, stabilizing the ice cream to have a good melting resistance, and prevent separation. The main objective of this research is to develop instant ice cream with flavorings from powdered drink with help of maltodextrin and stabilizers. The stabilizers used in this research were carrageenan, guar gum and tara gum. Initially, maltodextrin concentration suitable for the ice cream formulation needs to be established. There are four different concentrations of maltodextrin, 5 g, 15 g, 25 g and 35 g. 35 g of maltodextrin was chosen to be the best concentration based on overall acceptability. Next is to incorporate the three stabilizers at different concentration (0.25%, 0.5%, 1%). Amongst the stabilizers and concentration, 0.25% tara gum was chosen to be the best formulation. Both the concentration and tara gum are more preferable in all three aspects of smoothness, texture, and off-flavor wise and both are preferred overall by the participants.

Keywords: maltodextrin, instant ice cream, stabilizer, tara gum.

Reference: 23 (1995-2020)