

Diacylglycerol oil properties, processes and products : a review.

ABSTRACT

Diacylglycerol (DAG) oil has beneficial effects on obesity and weight-related disorders. A survey of literature has shown the effects of DAG on the reduction in the accumulation of body fat in both animals and humans. The physiological effect of DAG is believed to be attributed to its metabolic pathway, which is different from triacylglycerol (TAG) metabolism. Physicochemical properties, such as melting and smoke points and polymorphic forms, of DAG are also distinct from TAG. Various patented processes for DAG oil production from several reaction routes are discussed. A review of patent literature of commercial products based on DAG oils and fats is also provided.

Keyword: Diacylglycerol oil; Functional lipids; Obesity; Physicochemical properties; Production processes; Products.