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KEMAMIDE U - A METABOLIZABLE, UTILIZABLE, HIGH MELTING POINT FATTY ACID AMIDE. M.A. Kilmore*, S.M. Swift*, J. Lawrence*, M. Bayusik*, and W.K. Calhoun. Nutr. Div., Food Lab, U. S. Army Natick Labs, Natick, Mass.; Dept. of Pharmacology, College of Osteopathic Medicine and Surgery, Des Moines, Iowa.

It was found, during initial studies with rats of feeding fatty acid amides, that Kemamide U (A compound containing 75-77% oleamide) appeared to be readily utilized although it has a melting point of 64-75°C. Since it is unusual for animals to utilize adequately fatty compounds with melting points of this order, further feeding studies were performed. Using the procedure of Dymnsza, et al. (Federation Proceedings 22:610, 1963), it was found that Kemamide U yields 6.4 kilocalories per gram; although subsequent data indicate an even higher caloric value. In further studies, rats were fed diets containing 10, 20, and 30% of this compound for 6 weeks. As the Kemamide U concentration increased, food consumption decreased more than one would expect from only caloric considerations. In toto, decrease in food consumption appeared to be the only factor limiting the use of this compound; this is minimal when Kemamide U is not more than 10% of the diet. Since Kemamide U has a high melting point, and a caloric value of 6.4 or higher, it could have a possible use as a coating for high caloric dense food bars.

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