



## MULTI-PURPOSE INDIVIDUAL HEATING TECHNOLOGY (MIT)

### PURPOSE:

A safe, low-cost, non-regulated heat source is needed for inclusion within the Meal, Cold Weather (MCW) to efficiently heat water to support preparation of a hot meal and beverage in extreme cold weather operations. The MCW consists of freeze-dried lightweight components that won't freeze in extreme cold weather and are designed to optimize nutritional requirements (providing approximately 4620 calories per day via the use of 3 MCWs), and would significantly benefit from the inclusion of a heat source

### CHARACTERISTICS:

The Multi-Purpose Individual Heating Technology (MIT) is envisioned as a multi-functional, lightweight self-heating packet that would be incorporated into the MCW/LRP to facilitate heating of multiple dehydrated meal components and/or beverages. Self-contained chemical heaters and/or bio-based/food-safe heat tabs would be configured to support heating of two or more dehydrated, soup or beverage components to provide a complete, hot meal that could enhance the nutritional intake, hydration status, and morale of the Warfighter. This disposable, two-part heating method would also provide additional flexibility in heating various MCW/LRP components at different times to achieve greater flexibility in maintaining optimum performance under cold weather/operational extreme mission scenarios.

### TRANSITION

The procurement of heat packets supports a technology assessment by the NRSDEC-CFD to improve the ease-of-use and overall suitability of the MCW application. Given the naturally-derived methyl ester-based composition, heat density and controlled flammability characteristics of the heating cube, the product merits further technical evaluation through specific performance, safety, and extended shelf life evaluation for potential application to the MCW as an integral heating component of the ration. Since the cube is not regulated as a fuel or other hazardous material, it is particularly well-suited for potential inclusion in a ration package (Class 1 supply item). Also being developed is a fold-out, 16 ounce disposable aluminum heating cup that is intended to be packaged with two 24-gram cubes.

### POINT OF CONTACT:

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16-Ounce Multi-Use Heating Concept



### Alternative Heat Sources