

Ergonomically Design Flexible Water Bottle

Background:

Availability of drinking water is a major concern for people engaged in long duration outdoor activities such as military troops in strategic operations and long duration marching. Presently soldiers are using water bottle of one liter capacity/lesser capacity and it is made up materials, which is not classified under food/ medical grade. Furthermore, in areas which do not have direct access to safe drinking water, an alternate solution is required to provide safe drinking water from backcountry sources (pond, rivers) during field operations. Hence, design and development of new water bottle withintegrated filter is required to directly drink water from different water sources and to store water in the bottle and drink from bottle through the filter.

Novel features of the Water Bottle:

- ✓ Ergonomically designed, Capacity of 1.3 L
- ✓ Light weight, flexible and foldable
- ✓ Bottle is made of Food grade/BPA free material (FDA approved)
- ✓ Material can withstand temperature range of -40°C to $+100^{\circ}\text{C}$
- ✓ Cap having integration facility for detachable water filter (two stages)
- ✓ The bottle can be used as water filter to provides drinkable water from backcountry water sources in field situations
- ✓ The bottle can be used as a standalone unit for carrying drinking water in plains
- ✓ It can be used as an ice pack/hot pack

Scope of Usage

- This Ergonomically Designed Water Bottle will be highly useful to provides drinkable water from backcountry water sources in field situations

