

**DECON-LF**

(Low freeze Decontamination formulation)

Chemical agents used in warfare include vesicants and nerve agents and biological agents like anthrax are becoming increasingly problematic to military and civilian authorities. Vesicants such as sulphur mustard (HD), nitrogen mustards (HN-1, HN-2 and HN-3) and Lewisite (L) acts as blistering agents that attack skin and mucus membranes. Nerve agents like Tabun (GA), Sarin (GB), Soman (GD) and V compounds that include Vx act on the nervous system by reacting with the enzyme acetylcholinesterase (AChE) to cause respiratory collapse, convulsion and death. Unlike CW agents, BW agents can spread through infections and multiply in infected people. One person infected by anthrax or plague or any virus infects many people in the vicinity. In some biological agents, such as anthrax, spore production enables biological agents to remain in environment for years retaining their biological activity.

Methods for decontamination are known in the art use formulations which are corrosive, flammable and toxic. In view of the limitations present in existing decontamination formulations, there is a need for an effective decontamination formulation against chemical and biological warfare agents while being non-corrosive, non-toxic, non-flammable and also effective in a wide range of temperature. Hence decontamination formulation is required that can work in a wide range of temperature. DRDE has successfully developed decontamination formulation (DECON-LF) which is found effective against chemical as well as biological agents. The formulation can remain liquid as low as  $-35^{\circ}\text{C}$ . The chemical is mild on surfaces (less corrosive), cost effective and can be produced in bulk. The formulation has been successfully tested against CW agents and simulants of BW agents in laboratory conditions and found effective against both.