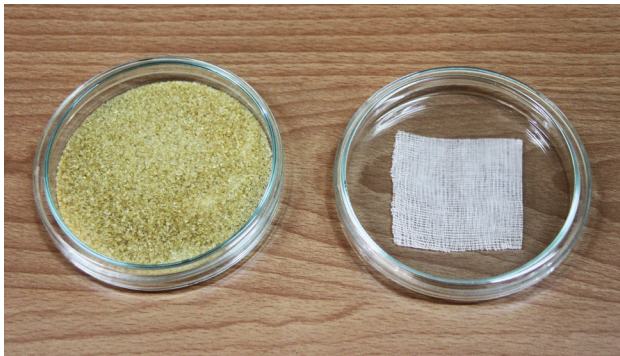


Radiation-Processed Materials from Natural Polymers for Health Applications:

- *PVP Carrageenan Hydrogel Wound Dressing*
- *Hemostats*



For more information on PVP carrageenan hydrogel wound dressing and Hemostats, please contact:

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Approximate Cost of Production

per 8" x 4" pouch Php 69.47

per 15g pouch Php 67.04

Polyvinyl pyrrolidone carrageenan hydrogel dressing — for wounds, burns and bedsores

Through radiation processing, PNRI researchers have successfully developed a hydrogel dressing based on carrageenan and polyvinyl pyrrolidone. This dressing is intended to cover wounds, to absorb wound exudates, to protect wound against abrasion, friction and contamination. Gamma radiation was utilized for crosslinking and sterilization of this hydrogel dressing with the trademark name of Skin-Up™. The product has been awarded with a patent and is ready for commercialization.



Sterility testing of PVP-carrageenan hydrogel wound dressing



Competitive edge of the PVP-carrageenan hydrogel:

- Abundance and availability of carrageenan as raw material
- Crosslinking and sterilization through radiation technology eliminates the use of toxic chemicals
- Cheaper than a commercial product because resources used are locally available.
- Projected price is cheaper than other commercial dressings presently available in the market

Approximate Cost of Production

- Size: 8" x 8" – Php 200/piece
- Size: 4" x 4" – Php 65/piece



Hemostat-material used to help arrest bleeding of ruptured blood vessels

Hemostats with different formulations and forms were prepared from chitosan, carboxymethyl cellulose, carboxymethyl carrageenan and combinations of these natural polymers and crosslinked with gamma radiation. These hemostats are tested for hemostatic efficacy. Initial tests conducted in vitro using swine blood indicated that the carboxymethyl-cellulose hemostat developed by PNRI was comparable in performance to a commercial hemostat product.