CADESORB®
Protease Modulating Ointment
Wound Chronicity

Neutrophils are the main source of proteases in the wound. An insufficient healing response allows a self-feeding cycle of damage to occur. This cycle can be broken by many potential routes.
Proteases

Proteases are vital to a range of metabolic processes including wound healing.

Acute wounds have elevated levels of proteolytic activity, primarily to prevent infection, during the first one or two days following injury.

Some chronic wounds retain these elevated levels of protease activity indefinitely, stuck in inflammatory-like phase.

Elevated levels of protease activity damage the extracellular matrix and this inhibits healing.
Proteases

A large family of enzymes that includes: serine, acid, cysteine and matrix-metallo (MMPs)

Destroy bacteria

Allow cell movement

Activity can be influenced by a variety of factors including: inhibitors, pH and temperature
Protease activity is strongly pH dependent
Chronic Wound pH

Range: pH 5.45-8.65
Mean: pH 7.42

Protease activity is maximised at pH of chronic wounds.
Cadesorb is an ointment that manages the pH of its local environment

Achieved by ion exchange with buffer species
Cadesorb consistently reduced the pH of 31 chronic wound fluid samples to around pH 5.
pH adjustment

Cadesorb manages wound fluid pH to a range where protease activity is minimised.
Matrix protection

Cadesorb consistently protected an in vitro model matrix from damage by neat chronic wound fluid
Cadesorb provides a simple and effective means of reducing protease activity and therefore helps protect the extracellular matrix.
Protecting the extracellular matrix from damage provides a stable wound bed that enables epithelialisation to take place.

This is the final stage of wound healing.
Ion exchange capacity?

Cadesorb controls its local pH environment
References

1. S&N Laboratory Report – TW086-90-007