Benefits:

• A unique non-prescription strength skin brightening formulation that combines three compounds, unrelated to Hydroquinone, clinically shown to inhibit melanin production via alternate chemical pathways: Kojic acid; Hydroxy acids and Vitamin C.

• Kojic acid ($C_6H_4O_4$), and its gentle dipalmitate ester, and produced in an aerobic process by a variety of micro-organisms from a wide range of organic compounds. Kojic acid is believed to inactivate tyrosinase, and thereby brighten the skin, by chelating its vital copper ion. This differs from the way Hydroquinone is believed to inhibit tyrosinase, via competition with DOPA and its receptor site and tyrosinase.

• Topical anti-oxidants, such as Vitamin C and its derivatives, have been shown clinically to possess brightening and skin soothing properties. This Vitamin C is called Tetrahexyldecyl Ascorbate, it is a stable, oil soluble Vitamin C Ester.

• Contains Green Tea Extract to help reduce skin dryness and irritation. Green Tea is a mixture of xanthine compounds and anti-oxidant (free radical scavaging)polyphenols.

• Hydroxy acids, such as Lactic and Phytic acids have been shown to enhance the penetration of topically-applied skin brightening agents, possess skin brightening properties of their own via suppression of tyrosinase formation and accelerate the exfoliation of hyperpigmented cells.
Ingredients

Water, Lactic Acid, Tetrahexyldecyl Ascorbate, Ethylhexyl isonate, Stearic acid, Kojic Dipalmitate, Pentylene glycol, C12-15 Alkyl benzoate, Steareth-21, Stearoxytrimethyl silane, Stearyl alcohol, Steareth-2, Caprylyl methicone, Petrolatum, Butylene glycol, Hydrogenated lecithin, Sodium Oleate, Oligopeptide-68, Phytic acid, Glycerin, Tyrostat ®/Rumex occidentalis extract, Evodia rutaecarpa fruit extract, L-Ergothioneine, Tocopherol, Magnesium Aluminium silicate, Camellia oleifera (Green Tea), 1,2 Hexanediol, Caprylyl glycol, Potassium hydroxide, Allantoin, Feruloyl soy glycerides, Xanthan gum, Edetate disodium and BHT.

Dosage and Administration:
Start off slowly, apply Kojiderm every other night. MONDAY, WEDNESDAY, FRIDAY. Use only at night. If no irritation occurs, increase to usage to twice daily, three times a week. For best results, try to increase usage to EVERY day and night. If skin gets irritated, cut back usage again.

Precautions:
If irritation, redness, or itching occurs, reduce frequency of application. If symptoms persist, discontinue use and consult physician or skin technician. For external use only. Keep away from eyes and mucosa. If contact occurs, rinse well with water. Do not use if pregnant or nursing. Keep out of the reach of children. Store in a cool, dry place.

For Extemporaneous Compounding:

ARBUSTASE LC - This skin lightening additive MUST be added to the cream by the physician/nurse/skin therapist at the time of purchase for extra strength skin lightening. 5ml of ARBUSTASE LC is the equivalent to 4% Hydroquinone in skin lightening results.

How supplied:
Kojiderm Cream: 30gram/1oz

Recommended Retail Price:
R 1 100.00 Retail Inclusive VAT (without Arbutase Additive)
Background:

- Found in the leaves of pear trees and certain plants such as wheat and bearberry, and in lower quantities in cranberry and blueberry leaves, arbutin is a naturally occurring B-D glucopyranoside consisting of a molecule of hydroquinone bound to glucose (in other words, the beta-D-glucopyranoside of hydroquinone).

- Arbutin has been used traditionally in Japan as a skin-lightening agent. Its depigmenting mechanism is thought to act by reversibly suppressing melanosomal tyrosinase activity rather than inhibiting the expression and production of tyrosinase. It also acts by inhibiting 5,6-dihydroxyindole-2-carboxylic acid (DHICA) polymerase; the hydrolysis of the glycosidic bond then results in hydroquinone release in a controlled manner. Tyrosinase is the rate-limiting enzyme that controls melanin production and is a unique product of melanocytes. Consequently, agents that inhibit tyrosinase activity, which is a major regulatory step in melanogenesis, prevent the synthesis of the pigment melanin and are therefore considered viable candidates as cosmetic skin-whitening ingredients.

- Recent research with arbutin and deoxyarbutin, a synthetic arbutin derivative, created by removing each hydroxyl group, that has shown promising in vitro and in vivo results with a greater inhibition of tyrosinase than its botanical precursor. It is important to note that hydroquinone, the standard cosmetic skin-lightening agent, is more potent than arbutin, but it has been associated with cytotoxicity, nephrotoxicity, and genotoxicity and was banned in Europe in 2000 and is strictly regulated in Asia.
**ARBUTASE® LC**

Skin Brightening Additive

**Ingredients**

*Propylene Glycol, Arbutin, Water, Sodium Metabisulfite, Citric Acid, Beta Glucosidase (USA & International Patents Pending).*

**For Extemporaneous Compounding:**

5cc/5ml (equivalent to 4% Hydroquinone) of ARBUTASE skin Brightening additive **MUST** be added to the Kojiderm cream by the physician/nurse/skin therapist at the time of purchase for extra strength skin lightening/brightening. Add 5cc/5ml using the syringe supplied into jar. Mix well until dissolved. **Expires 60 days from the day of compounding.**

**PLEASE NOTE:** For sensitive skins add only **2cc/2ml** or **3cc/3ml** of ARBUTASE to the Kojiderm Cream.

**How supplied:**

Compounded by Dispensing Dermatologist or selected outlet.

**Recommended Retail Price:**

R 60.00 per ml Vat Inclusive

Contact: 076 937 6388 or info@scinderm.co.za