

## **SUMMARY OF PRODUCT CHARACTERISTICS**

### **1. NAME OF THE MEDICINAL PRODUCT**

#### **PRODUCT NAME**

**GENERIC:** Silver Sulfadiazine Cream USP 1% w/w

**BRAND NAME:** SILVERKANT

**DESCRIPTION:** Homogenous white to off white cream with no dried out appearance on the surface

### **2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

Silver Sulfadiazine USP ..... 1% w/w

In a cream base..... q.s.

For complete list of excipients refer section 6.1.

### **3. PHARMACEUTICAL FORM:**

SEMI- SOLID DOSAGE FORM- TOPICAL CREAM

### **4. CLINICAL PARTICULARS**

#### **4.1 Therapeutic Indication:**

Silver Sulfadiazine Cream USP 1% w/w is a topical antimicrobial drug indicated as an adjunct for the prevention and treatment of wound sepsis in patients with second-and third-degree burns.

Sulfadiazine is a short-acting sulphonamide with bacteriostatic activity against a broad spectrum of organisms.

Gram-positive - particularly group A Streptococci and some strains of Streptococcus pneumoniae, Bacillus anthracis, Nocardia (especially N. asteroides) and, to a lesser extent, Staphylococci and Clostridium perfringens.

Gram-negative - Haemophilus influenzae and H. ducreyi are often sensitive, sensitivity varies among the enterobacteriae-Escherichia coli, Klebsiella, proteus, Salmonella and Serratia and Vibrio cholerae are sometimes sensitive. Other organisms reported to be sensitive include, Actinomyces sp., Brucella, Calymmatobacterium granulomatis, Legionella, Yersinia pestis, Chlamydia, Pseudomonas pseudomallei.

## **4.2 Posology and method of administration:**

### **Posology:**

The burn wounds are cleansed and debrided, and Silver Sulfadiazine Cream USP 1% w/w is applied under sterile conditions. The burn areas should be covered with Silver Sulfadiazine Cream USP 1% w/w at all times.

The cream should be applied once to twice daily to a thickness of approximately 1/16 inch. Whenever necessary, the cream should be reapplied to any areas from which it has been removed by patient activity. Administration may be accomplished in minimal time because dressings are not required. However, if individual patient requirements make dressings necessary, they may be used.

Reapply immediately after hydrotherapy.

Treatment with Silver Sulfadiazine Cream USP 1% w/w should be continued until satisfactory healing has occurred, or until the burn site is ready for grafting. The drug should not be withdrawn from the therapeutic regimen while there remains the possibility of infection except if a significant adverse reaction occurs.

For external use only

Route: Topical

**Or**

As Directed by the Physician

## **4.3 Contraindications:**

Silver Sulfadiazine Cream USP 1% w/w is contraindicated in patients who are hypersensitive to silver sulfadiazine or any of the other ingredients in the preparation.

Because sulfonamide therapy is known to increase the possibility of kernicterus, Silver Sulfadiazine Cream USP 1% w/w should not be used on pregnant women approaching or at term, on premature infants, or on newborn infants during the first 2 months of life.

#### **4.4 Warning and precautions for use**

##### **WARNINGS**

Absorption of silver sulfadiazine varies depending upon the percent of body surface area and the extent of the tissue damage. Although few have been reported, it is possible that any adverse reaction associated with sulfonamides may occur. Some of the reactions, which have been associated with sulfonamides, are as follows: blood dyscrasias including agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, and hemolytic anemia; dermatologic and allergic reactions, including life-threatening cutaneous reactions [Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN) and exfoliative dermatitis]; gastrointestinal reactions; hepatitis and hepatocellular necrosis; CNS reactions; and toxic nephrosis.

There is potential cross-sensitivity between silver sulfadiazine and other sulfonamides. If allergic reactions attributable to treatment with silver sulfadiazine occur, continuation of therapy must be weighed against the potential hazards of the particular allergic reaction.

Fungal proliferation in and below the eschar may occur. However, the incidence of clinically reported fungal superinfection is low.

The use of Silver Sulfadiazine Cream USP 1% w/w in some cases of glucose-6-phosphate dehydrogenase-deficient individuals may be hazardous, as hemolysis may occur.

##### **PRECAUTIONS**

###### **General**

If hepatic and renal functions become impaired and elimination of drug decreases, accumulation may occur and discontinuation of Silver Sulfadiazine Cream USP 1% w/w should be weighed against the therapeutic benefit being achieved.

In considering the use of topical proteolytic enzymes in conjunction with Silver Sulfadiazine Cream USP 1%, the possibility should be noted that silver may inactivate such enzymes.

## **Laboratory Tests**

In the treatment of burn wounds involving extensive areas of the body, the serum sulfa concentrations may approach adult therapeutic levels (8 mg to 12 mg). Therefore, in these patients it would be advisable to monitor serum sulfa concentrations. Renal function should be carefully monitored and the urine should be checked for sulfa crystals. Absorption of the propylene glycol vehicle has been reported to affect serum osmolality, which may affect the interpretation of laboratory tests.

## **Carcinogenesis, Mutagenesis, Impairment of Fertility**

Long-term dermal toxicity studies of 24 months' duration in rats and 18 months' in mice with concentrations of silver sulfadiazine three to ten times the concentration in Silver Sulfadiazine Cream USP 1% revealed no evidence of carcinogenicity

## **4.5 Drug Interactions**

The action of sulfonamides may be antagonised by p-aminobenzoic acid and compounds derived from it, particularly potassium aminobenzoate and the procaine group of local anaesthetics.

Sulfamethoxazole and other sulfonamides may potentiate the effects of some drugs, such as oral anticoagulants, methotrexate, and phenytoin; this may be due to displacement of the drug from plasma protein binding sites or to inhibition of metabolism. However, the clinical significance of these interactions appears to depend on the particular sulfonamide involved. The possibility of interactions with other highly protein-bound drugs, such as NSAIDs, should be considered.

High doses of sulfonamides have been reported to have a hypoglycaemic effect; the antidiabetic effect of the sulfonylurea compounds may be enhanced by the concomitant administration of sulfonamides. Some sulfonamides have been associated with a decrease in plasma-cyclosporin concentrations when used concomitantly. Isolated reports have described possible failures of hormonal contraceptives resulting in pregnancy in patients given sulfonamides

The administration of compounds which render the urine acidic may increase the risk of crystalluria.

## **4.6 Pregnancy & Lactation**

### **PREGNANCY:**

*Teratogenic Effects -Pregnancy Category B*

A reproductive study has been performed in rabbits at doses up to three to ten times the concentration of silver sulfadiazine in Silver Sulfadiazine Cream USP 1% and has revealed no evidence of harm to the fetus due to silver sulfadiazine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly justified, especially in pregnant women approaching or at term. (See **CONTRAINDICATIONS**)

#### **BREAST-FEEDING:**

It is not known whether silver sulfadiazine is excreted in human milk. However, sulfonamides are known to be excreted in human milk, and all sulfonamide derivatives are known to increase the possibility of kernicterus. Because of the possibility for serious adverse reactions in nursing infants from sulfonamides, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

#### **4.7 Effects on ability to drive and use machines:**

None stated.

#### **4.8 Adverse Effects**

Skin rash, increasing pain, burning or itching.

#### **4.9 Overdose**

Not Known

### **5. PHARMACOLOGICAL PROPERTIES:**

#### **5.1 Pharmacodynamic properties:**

**PHARMACOTHERAPEUTIC GROUPS:** Anti Fungal Topical Cream

Silver sulfadiazine has broad [antimicrobial](#) activity. It is bactericidal for many [gram-negative](#) and [gram-positive bacteria](#) as well as being effective against yeast. Results from *in vitro* testing are listed below.

Sufficient data have been obtained to demonstrate that silver sulfadiazine will inhibit bacteria that are resistant to other antimicrobial agents and that the compound is superior to sulfadiazine.

Studies utilizing [radioactive](#) micronized silver sulfadiazine, [electron microscopy](#), and [biochemical](#) techniques have revealed that the mechanism of action of silver sulfadiazine on bacteria differs from

silver nitrate and sodium sulfadiazine. Silver sulfadiazine acts only on the [cell membrane](#) and cell wall to produce its bactericidal effect.

## **5.2 Pharmacokinetic properties**

No data available since it is a topical application

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

1. Polysorbate 60 BP
2. Polysorbate 80 (Tween 80) BP
3. Glycerol monostearate BP
4. Cetyl alcohol BP
5. Light liquid paraffin BP
6. Propylene glycol BP
7. Citric Acid Monohydrate BP
8. Purified water BP
9. Sodium Hydroxide BP

### **6.2 Incompatibilities**

Not Applicable

### **6.3 Shelf Life**

3 Years

### **6.4 Special precautions for storage:**

Do not store above 30°C.

Do not freeze.

Do not accept if seal is broken.

Puncture nozzle with piercing point of the cap.

Keep the tube tightly closed after use.

Keep the medicine out of reach of children.

For external use only.

### **6.5 Nature and contents of container**

30gm /50gm Collapsible Aluminium Tube

**6.6 Special precautions for disposal and other handling**

Not known.

**7. APPLICANT**

Manufactured by:



**1802-1805, G.I.D.C., Phase III,  
Vapi - 396 195. Gujarat, INDIA.**

**8. WHO PREQUALIFICATION REFERENCE NUMBER**

Not applicable

**9. DATE OF PREQUALIFICATION / RENEWAL OF PREQUALIFICATION**

Not applicable

**10. DATE OF REVISION OF THE TEXT**

Not applicable