

Sulphur & its compound

- * Elemental Sulphur exist in various allotropic forms including several solid and two liquid states namely:
- * It occurs in free form & also sulphides & Sulphate Sulphur &
- * its compound have many use p,'ceutical & medicinal fields.
- * Solid as Rhombic (α -Sulphur, $S\alpha$, Sublimed Sulphur or Flower of Sulphur), and Monoclinic (β -Sulphur, $S\beta$); Liquid as λ -Sulphur Plastic Sulphur and Amorphous Sulphur (formed on aging of "plastic" sulphur).
- * Elemental Sulphur is little use internally

MOA:-but it is use topically as antibacterial. elemental sulphur acts either due to the oxidation-reduction products of the element [e.g. sulphides)

- * The sulphur "candles" when burned, give off sulphur dioxide for fumigation or insecticide purposes.
- * Sulphides are used as depilatories, due to the ability of sulphides in highly alkaline solution (pH 10) to reduce the disulphide linkage in the amino acid cysteine in hair. The reduction and softening of the hair help in its removal.

medicinally used Sulphur compound are

PRECIPITATED SULPHUR

- Chemical symbol S Atomic wt. : 32.6
- Synonym:- flower of Sulphur, milk of sulphur

Preparation:-

- By Sublimation process

(Any form of Sulphur is heated vapors produced which are condensed.)

- In refinery the molten Sulphur is placed in iron retorts which communicate with the stone chambers.
- When Sulphur vapors enters the stone chambers they ignite & convert into Sulphur dioxide.
- The subsequent vapor pass through relative cold gas & condenses on walls & floors of the chambers in fine crystalline form.



Properties:-

- Colour:- Yellow
- nature:- Fine crystalline powder
- Odour :- Odourless
- Tasteless
- Solubility:- insoluble in water and in alcohol.

Uses:-

- Used as an ingredient in sulphur ointment & used as scabicide.
- Used in the treatment of acne, pimples and psoriasis
- Act as kerotolytic agent

Precipitated Sulphur U.S.P (Solid allotropic form of Sulphur)

- properties:
- Colour:-pale yellow
- Odour:-odoureless
- Taste;- Tasteless
- nature:- very fine
- Solubility;- very slightly soluble in alcohol & slightly soluble in olive oil.

Uses:-

1. Sulphur is a mild antiseptic and Parasiticide and has been widely in the of lotions and 10% ointments for treatment of scabies & acne . employed as fungicides in the treatment of superficial fungal infections.
- 2) Sulphur is also used mainly as a dermatological agent to treat seborrhea s , psoriasis.
- 3) It may be used alone or in conjunction with other keratolytics .
- 4) Precipitated Sulphur is converted in the small intestines into alkali sulphides which produce a mild laxative effect due to their irritant action.
- 5) also used in homoeopathic medicines.

Note-Some patients may be hypersensitive to sulphur and should be observed for any allergic manifestations.