

# TOPICAL AGENTS

## SULPHUR AND ITS COMPOUNDS



SULPHUR



# SULPHUR

- Sulphur occurs in nature as free form and as ores.
- Allotropes:
  - (1) Rhombic sulphur (room to 96°C)
  - (2) Monoclinic sulphur (stable b/n. 96-119°C)
  - (3) Liquid
  - (4) Plastic sulphur, long polymeric chains.
  - (5) Amorphous

# RHOMBIC SULPHUR

- Also known as octahedral sulphur
- Consists of 8 membered ring
- Pale yellow crystalline powder
- Faint odour
- Faint taste
- Insoluble in water and alcohol and soluble in carbon disulphide.

# MONOCLINIC SULPHUR

- Also known as Beta Sulphur/ Prismatic sulphur
- Pale yellow/ nearly colourless needle shaped crystals
- Insoluble in water and alcohol
- Soluble in carbon disulphide

# LIQUID SULPHUR

- Also known as lambda sulphur
- Pale yellow mobile liquid
- If heated further, black coloured viscous liquid called mu sulphur formed
- On slow cooling, gives lambda sulphur

# PLASTIC SULPHUR

- Super cooling of mu sulphur gives plastic sulphur
- Soft and rubber like
- Becomes hard and brittle on standing for several days
- Insoluble in carbon disulphide

# AMORPHOUS SULPHUR

- After aging, plastic sulphur slowly hardens to form amorphous sulphur

# SUBLIMED SULPHUR

- S
- Atomic weight – 32
- Obtained by condensing sulphur vapours produced by heating any form of sulphur
- Fine yellow, slightly gritty, crystalline powder
- Faint odour
- Faint taste
- Practically insoluble in water and alcohol, incompletely soluble in carbon disulphide
- Burns with blue flame with formation of sulphur dioxide



# USES OF SUBLIMED SULPHUR

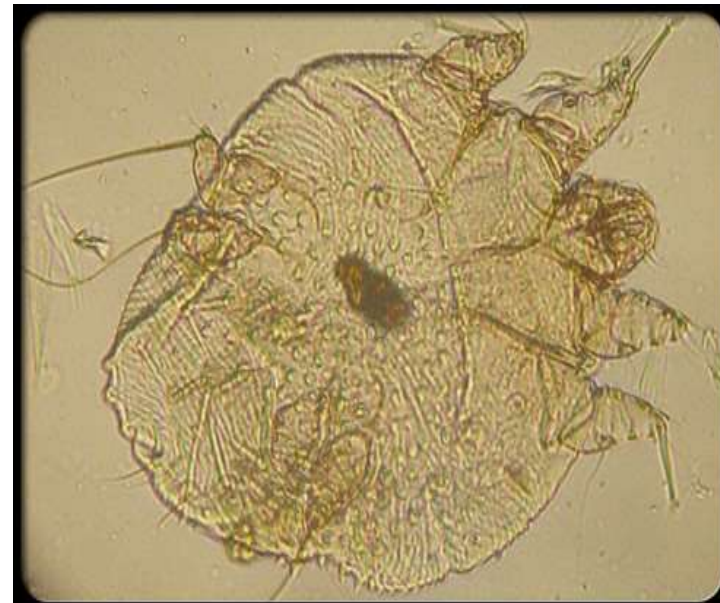
- As mild antiseptic
- As parasiticide
- As mild laxative
- As lotion or ointment in acne or scabies
- In skin diseases like ringworm infection, pediculosis, psoriasis, eczema
- As ingredient of liquorice compound powder
- In homeopathic medicines

# PRECIPITATED SULPHUR

- Milk of sulphur
- Mild antiseptic
- Parasiticide
- Scabicide
- Used topically as lotions, creams, pastes, detergents , soaps
- Antifungal & keratolytic for acne, psoriasis, seborrhoea, eczema
- Fumigant
- Mild laxative
- Used with precipitated sulphur to darken grey hair
- In homeopathic medicines

# SCABIES

- Scabies is an infestation by the itch mite, *Sarcoptes scabiei*. Mites are small eight-legged parasites (in contrast to insects, which have six legs). They are tiny, just 1/3 millimeter long, and burrow into the skin to produce intense itching, which tends to be worse at night. The mites which cause scabies are not visible with the naked eye but can be seen with a magnifying glass or microscope.



# PSORIASIS

It causes a thick, patchy, red rash with silvery, white scales. It can appear anywhere but most often occurs on the scalp, elbows, knees, and lower back. The condition is not contagious, and it's fairly common

Psoriasis typically starts as a few red bumps. These may become larger and thicker, eventually developing scales. The patches may join together and cover large areas of the body. The rash can be itchy and uncomfortable, and it may bleed easily if rubbed or picked.

**Psoriasis** Symptoms, Causes and Treatment



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# SELENIUM SULPHIDE

- Bright orange to reddish brown powder
- Faint odour
- Has antiseborrheic action. Used in non inflammatory, non exudative seborrhoea of scalp
- In form of shampoos in dandruff & seborrhoeic dermatitis of scalp
- For seborrhoeic dermatitis, allergic dermatitis with seborrhoea

THANK YOU