

Uses

Phenol can be used in the following ways :-

1. **Antiseptic and Disinfectant** : As an antiseptic and disinfectant, phenol is used against Gram positive and Gram negative bacteria. Aqueous solutions upto 1% are antiseptic and from 1-2% are disinfectant.
2. **Antimicrobial preservative.**
3. **Antipruritic** : A 0.5% solution of phenol is occasionally used to relieve itching.
4. **Analgesic** : Phenol is used as an analgesic in dentistry, mouth ulcers and tonsillitis as a solution in glycerol.

Official

Phenol, I.P., B.P.

Liquefied Phenol, B.P.

Phenol Glycerin, B.P.

Phenol and Glycerol Injection, B.P.

Oily Phenol Injection, B.P.

Brand Names

Carbolic acid, Phenylic acid.

LIQUIFIED PHENOL

Liquefied phenol contains 80% w/w of phenol and the rest is water. It is a colourless liquid which may become pink on keeping. It has a characteristic phenolic odour. All its other properties and uses are the same as that of phenol.

Storage

Liquefied phenol should be stored in a well-closed container which is protected from light. If stored below 4°C, it may deposit crystals. Under such circumstances, it should be completely melted before use.

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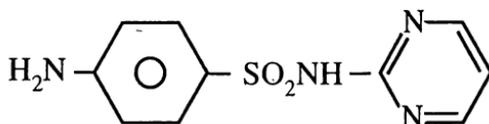
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pyrimidine which is a six-membered ring containing two nitrogens in the 1 and 3 positions. The second position of the pyrimidine ring is linked to the N¹ nitrogen. Therefore the systematic name of sulphadiazine may be given as 2-(*p*-aminobenzenesulphonamido) pyrimidine. Alternatively it can also be described as *N*¹-2-pyrimidinylsulphanilamide.



SULPHADIAZINE

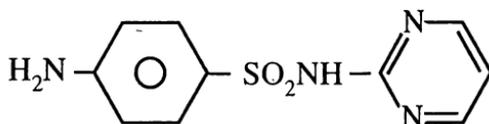
Physical Properties

Sulphadiazine occurs as white or yellowish-white or pinkish-white crystals or as a crystalline powder. It is tasteless and almost odourless. It is practically insoluble in water and also in other solvents such as alcohol and acetone. It is freely soluble in dilute mineral acids and in aqueous solutions of alkali hydroxides. It is also photosensitive and darkens slowly when exposed to light.

Chemical Properties

Since it also contains a free primary amino group in the para position of the benzene nucleus, it can also be diazotised in ice cold conditions by mixing with dilute hydrochloric acid and sodium nitrite solution. The diazo salt on coupling with β-naphthol solution containing a little sodium acetate gives an orange precipitate. Sulphadiazine gives an olive-green precipitate on mixing it with decinormal sodium hydroxide solution followed by copper sulphate solution. This olive green precipitate later becomes purple-grey on standing. If

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