p-Dimethylaminobenzaldehyde

(DMAB; Ehrlich's Reagent)

For Post-column Analysis of Drugs in Feeds

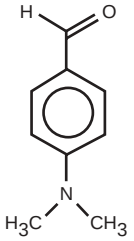
- **Chromatographic Grade® pure, colorless crystals**
- **450 nm detection for selectivity**
- **Available in 5 gram bottles**

Reversed-phase LC followed by post-column derivatization is used to determine the residue levels of Sulfamethazine, Sulfathiazole and related compounds in feeds and feed premixes. Although these compounds have a UV chromphore, so do most of the other constituents in a complex sample matrix. Forming a colored derivative post-column allows shifting of the detection wavelength into the visible range, thus greatly enhancing selectivity.

p-Dimethylaminobenzaldehyde (DMAB; Ehrlich's Reagent) reacts rapidly with many primary amines to form a complex with maximum absorbance at 450 nm. Most commercially available grades are not of sufficient purity to operate in the demanding environment of post-column chemistry, as demonstrated by excessive baseline noise and shortened reagent life.

Pickering Laboratories' highly purified, Chromatographic Grade DMAB, begins with the purest commercial grade available. The post-column reagent is prepared by dissolving DMAB in glacial acetic acid, methanol and water[2]:

- DMAB 1.5 g
- Acetic acid 100 mL
- Methanol 60 mL
- Water 40 mL



DMAB 4-Dimethylamiobenzaldehyde
CAS No. [100-10-7]

By maintaining the prepared reagent under inert gas, and in a reservoir fitted with oxygen-impermeable tubing, it is possible to extend its effectiveness for up to one week.

The Pickering Laboratories AO3100 derivatization instrument (with a special 0.5 mL reactor) may be connected to a standard liquid chromatograph (HPLC) with a UV/Vis detector, to convert it to an analyzer specific for the analysis of sulfa drugs.

REFERENCE:
1. R.W. Stringham, E.C. Mundel and R.L. Smallidge, *JAOAC*, 1982, 65.(4), 823-827.
2. R.C. Smallidge, E.J. Kentzer, R.W. Stringham, et al., *JAOAC*, 1988 71(4), 418-453
3. L.V. Bui, *JAOAC*, 1993, 76(5), 966.

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