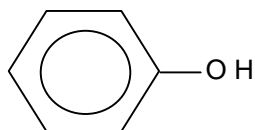


Tobacco Smoke Components: Phenolics

Tobacco smoke contains chemicals known as “phenolics”. Phenolics are organic chemicals composed of a six-carbon benzene ring and alcohol (-OH) groups:



The above drawing is of the chemical Phenol, which is present in tobacco smoke. Catechol, Cresol, Hydroquinone and Resorcinol are all phenolics found in tobacco smoke.

| Common Name | Also Known As | Health Effects ¹ | Composition |
|----------------------|---|---|-------------|
| Catechol | 1,2-Benzenediol 1,2-Dihydroxybenzene Pyrocatechol | Co-carcinogen Increases Blood Pressure Irritant | |
| Cresol (all isomers) | 2-Methylphenol (o) 3-Methylphenol (m) 4-Methylphenol (p) Cresylic acid (mixture) | Tumor promoter Strong irritant Increases Blood Pressure Kidney malfunction | |
| Hydroquinone | 1,4-Benzenediol p-Dihydroxybenzene p-Hydroxyphenol | Eye Injury Irritant Central nervous system effects | |
| Phenol | Carbolic Acid Hydroxybenzene Oxybenzene | Toxin Damages lungs Irritant | |
| Resorcinol | 1,3-Benzenediol m-Dihydroxybenzene | Irritant | |

¹ ACGIH American Conference of Governmental Industrial Hygienists 1996.