# PRODUCT INFORMATION



# Catechol

Item No. 34791

CAS Registry No.: 120-80-9 Formal Name: 1,2-benzenediol

Synonyms: 1,2-Dihydroxybenzene, NSC 1573, Pyrocatechol

MF:  $C_6H_6O_2$ FW: 110.1 **Purity:** ≥98% UV/Vis.:  $\lambda_{max}$ : 216 nm Supplied as: A solid

-20°C Storage: Stability: ≥4 years Item Origin: Synthetic

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## **Laboratory Procedures**

Catechol is supplied as a solid. A stock solution may be made by dissolving the catechol in the solvent of choice, which should be purged with an inert gas. Catechol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of catechol in ethanol is approximately 2 mg/ml and approximately 1 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of catechol can be prepared by directly dissolving the solid in aqueous buffers. The solubility of catechol in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

# Description

Catechol is a polyphenol that has been found in a variety of natural and anthropogenic sources. 1 It has been found in teas, fruits, and vegetables, as well as cigarette smoke, and is used in rubber and plastic production.<sup>2-4</sup> Catechol is also used as a precursor in the synthesis of organic polymerization inhibitors, flavoring and fragrance agents, and pesticides. It is an organic pollutant and has been found in industrial wastewater.5,6

### References

- 1. Fiege, H., Voges, H.-W., Hamamoto, T., et al. Wiley (2000).
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- 3. Ookawa, S., Hirosawa, I., Hirakawa, K., et al. Carcinogenesis 22(8), 1239-1245 (2001).
- 4. Carmella, S.G., LaVoie, E.J., and Hecht, S.S. Food Chem. Toxicol. 20(5), 587-590 (1982).
- 5. Caballero, S.J., Guerrero, M.A., Vargas, L.Y., et al. Journal of Physics: Conference Series (2018).
- Petriccione, M., Forte, V., Valente, D., et al. Environ. Sci. Pollut. Res. Int. 20(7), 4859-4871 (2013).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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