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## Product Information

### Potassium hydroxide ACS Reagent

Product Number **P 6310**  
Store at Room Temperature  
**22,147-3 is an exact replacement for P 6310**

#### Product Description

Molecular Formula: KOH  
Molecular Weight: 56.11  
CAS Number: 1310-58-3  
Melting point: 360 °C, 380 °C (anhydrous)<sup>1</sup>

This product is in the form of pellets. It is designated as ACS Reagent grade, and meets the specifications of the American Chemical Society (ACS) for reagent chemicals.

Potassium hydroxide (KOH) is a caustic reagent that is widely used to neutralize acids and prepare potassium salts of reagents. It is used in a variety of large-scale applications, such as the manufacture of soap, the mercerizing of cotton, electroplating, photoengraving, and lithography.<sup>1</sup>

Potassium hydroxide is used in the analysis of bone and cartilage samples by histology.<sup>2,3</sup> A protocol for the amplification of DNA from single cells by PCR that incorporates KOH has been reported.<sup>4</sup> The use of KOH in studies of the binding of intercalating anti-cancer drugs to nucleic acids has been investigated.<sup>5</sup>

#### Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

#### Preparation Instructions

This product is soluble in water (100 mg/ml), yielding a clear, colorless solution. Potassium hydroxide is also soluble in alcohol (1 part in 3) and glycerol (1 part in 2.5). The dissolution of potassium hydroxide in water or alcohol is a highly exothermic (heat-producing) process.<sup>1</sup>

#### Storage/Stability

Potassium hydroxide rapidly absorbs carbon dioxide and water from the air and deliquesces.<sup>1</sup> Potassium hydroxide solutions should be stored in plastic bottles (polyethylene or polypropylene). KOH solutions will etch glass over a period of just a few days.

#### References

1. The Merck Index, 12th ed., Entry# 7806.
2. Philip, N. S., and Green, D. M., Recovery and enhancement of faded cleared and double stained specimens. *Biotech. Histochem.*, **75(4)**, 193-196 (2000).
3. Miller, D. M., and Tarpley, J., An automated double staining procedure for bone and cartilage. *Biotech. Histochem.*, **71(2)**, 79-83 (1996).
4. Pierce, K. E., et al., QuantiLyse™: reliable DNA amplification from single cells. *BioTechniques*, **32(5)**, 1106-1111 (2002).
5. Cummings, J., et al., Determination of covalent binding to intact DNA, RNA, and oligonucleotides by intercalating anticancer drugs using high-performance liquid chromatography. Studies with doxorubicin and NADPH cytochrome P-450 reductase. *Anal. Biochem.*, **194(1)**, 146-155 (1991).

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