

## 71183, 71196 Sodium acetate anhydrous (Acetic acid Sodium salt anhydrous)

**CAS number:** 127-09-3

### Product Description:

Molecular formula:	C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> Na
Molecular weight:	82.03 g/mol
Solubility:	3 M in H <sub>2</sub> O, 20°C, complete, colorless
pH:	8.5-10.0 (3 M in H <sub>2</sub> O, 25°C)

71183 BioUltra for molecular biology

71196 BioUltra for molecular biology (Solution 3 M in water)

These products are designated as BioUltra grade and are suitable for different applications like purification, precipitation, crystallisation and other applications which require tight control of elemental content. Trace elemental analyses have been performed for all qualities. The molecular biology qualities are also tested for absence of nucleases and the luminescence quality spectroscopic test is performed. The Certificate of Analysis provides lot-specific results.

Sodium acetate is a widely used reagent in molecular biology applications. It is used as a buffer in conjunction with acetic acid, in the buffering range of pH 3.6 - 5.6. Sodium acetate is used in the purification and precipitation of nucleic acids,<sup>1,2,3</sup> protein crystallization,<sup>4</sup> staining of gels in protein gel electrophoresis<sup>5</sup> and HPLC.<sup>6</sup> Large scale applications of sodium acetate include its use as a retardant in plastics manufacturing, as a mordant in dyeing, and in the tanning of leather.<sup>7</sup> A DNA microarray study of E. coli response to different levels of sodium acetate has been reported.<sup>8</sup> Protein unfolding during reversed phase chromatography in the presence of varying salts, including sodium acetate, at different ionic strengths has been investigated.<sup>9</sup> Sodium acetate has been used in conjunction with sodium carbonate to enhance the activation of freeze-dried subtilisin Carlsberg in organic solvents.<sup>10</sup> Sodium acetate may be used as a substrate for acetokinase (acetate kinase).<sup>11</sup>

### Preparation Instructions:

Sodium acetate is soluble in water (3 M), yielding a clear, colorless solution. The pH of a 0.1 M aqueous sodium acetate solution at 25 °C is 8.9.<sup>8</sup>

### Storage/Stability:

This product is hygroscopic. It is advised to keep containers well closed. Sterile filtered solutions are stable for a long time.



## References:

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7. *The Merck Index*, 12th ed., Entry# 8711.
8. Polen, T., et al., DNA microarray analyses of the long-term adaptive response of *Escherichia coli* to acetate and propionate. *Appl. Environ. Microbiol.*, 69(3), 1759-1774 (2003).
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## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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