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**CYANOGEN BROMIDE**  
Sigma Prod. No. C6388

**CAS NUMBER:** 506-68-3

**SYNOMYS:** Bromine cyanide; Bromocyan; Bromocyanide; Bromocyanogen; Bromure de Cyanogen (French); Campilit; Cyanobromide; Cyanogen Monobromide, UN1889 (DOT)

**PHYSICAL PROPERTIES:**

Appearance: White powder<sup>1</sup>

Molecular formula: CNBr

Molecular weight: 105.9

Melting Point: 52°C<sup>2</sup>

Boiling Point: 61-62°C<sup>2</sup>

Specific Gravity: 2.015 @20°C with respect to water @4°C<sup>2</sup>

**STABILITY / STORAGE AS SUPPLIED:**

Sigma recommends that this product be stored in the refrigerator under Argon gas to protect it from moisture. Pure completely dried cyanogen bromide may be stored in a desiccator for several months.<sup>2</sup>

**SOLUBILITY / SOLUTION STABILITY:**

Cyanogen bromide is freely soluble in water, alcohol and ether.<sup>2</sup> Solutions are commercially available from Aldrich Chemical Company in acetonitrile and dichloromethane.

Cyanogen bromide decomposes in aqueous solutions of alkalies to alkali cyanide and alkali bromide.<sup>2</sup>

**APPLICATIONS:**

Read MSDS from Sigma before using this product.

Cyanogen bromide selectively cleaves peptide bonds on the carboxyl side of methionine residues.<sup>3,4,5</sup> It has been used as an activating reagent for insoluble supports for affinity chromatography.<sup>6,7</sup>

**REFERENCES:**

1. Supplier Information.
2. *The Merck Index*, 12th ed., p. 453, #2763 (1996).

## Product Information

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**NOTES:** (continued)

3. Drapeau, G.R. and Yanofsky, C., *J. Biol. Chem.*, vol. 242, 5434 (1967).
4. Simpson, R.J. and Nice, E.C., *Biochem. Int.*, vol. 8, 787 (1984).
5. Gross, E., *Methods in Enzymology*, vol. 11, 238 (1967).
6. March, S.C. et al., *Anal. Biochem.*, vol. 60, 149 (1974).
7. Kohn, J. and Wilchek, M., *Applied Biochem. Biotech.*, vol. 9, 85-305 (1984).

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