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CTC

Item# Unit Size
C440-10 100 mg

Selectively staining possible

Fast results

Fluorescent microscopy and flow cytometry detection

Chemical Name: 5-Cyano-2,3-ditolyl-2H-tetrazolium chloride

CAS: 90217-02-0

Appearance: White or slightly orange crystalline powder

MW: 311.77, C₁₆H₁₄ClN₅

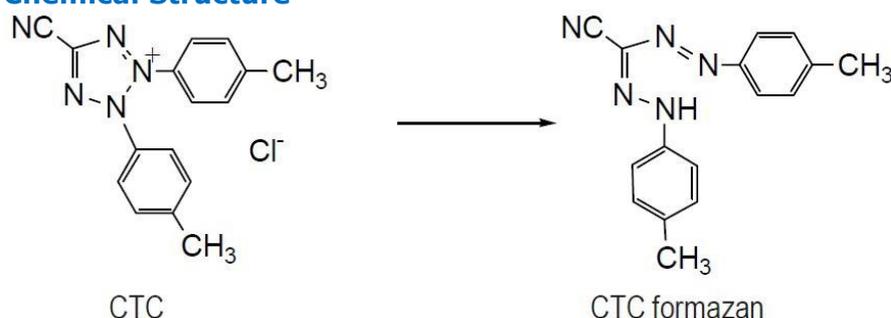
Storage Condition: 0-5°C, protect from light

Shipping Condition: ambient temperature

Product Description

CTC can be used in various ways to detect bacteria, depending on the objective. Detection methods include the agar plate cultivation method, which involves counting colonies that arise from bacteria cultivation; staining bacteria using the fluorescent stain method; testing for bacteria that has potential for growth using the DVC method; and detecting particular bacteria using the FISH method-DNA amplification method. CTC is reduced to CTC formazan (CTF) by electron transfer through respiratory activity and builds up as fluorescent sedimentation inside a cell that has become insoluble in water. CTC itself is water-soluble and non-fluorescent in aqueous solution; CTF, however, is not fluorescent in fluids with low viscosity. However, in fluids with high viscosity and in a solid state, it gives off a red fluorescence. It is possible to search for cells with respiratory activity after incubating CTC with reagent, by counting under a fluorescent microscope or analyzing by flow cytometry. By using with nucleic acid staining reagent to count the total cell population and the number of living cells, or using with the FISH method to selectively count a particular viable cell type, it is possible to collect a higher level of data. Since the existence of VNC (viable but non-culturable) bacteria (has become evident, the demand for a rapid detection method of microorganisms is on the rise and is expected to become a technique in sanitation testing.

Chemical Structure



CERTIFICATE NO. 32423

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