



## 2,3,5-Triphenyltetrazolium chloride, TTC

Enzyme Substrate for dehydrogenase

The dye 2,3,5-triphenyltetrazolium chloride (TTC) is primarily utilized for counting microbial colonies in solid culture media. When oxidized, this dye is colorless; when reduced by microbes by dehydrogenase enzyme, formazan is formed, which turns the dye red. Via enzymatic action, live microorganisms break down TTC, generating red formazan that is stored in cell granules. Dead cells stay colorless, whereas living cells turn red.

Cat. Number	ASC-1021
CAS Number	298-96-4
MDL Number	MFCD00011963
PubChem	310281422
Molecular Weight	334.80 g/mol
Molecular Formula	C <sub>19</sub> H <sub>15</sub> ClN <sub>4</sub>
Storage Temperature	+4°C
Form and Color	White to faint yellow, Powder
Solubility (5% in ethanol)	Clear, Faint yellow to yellow solution
Melting Point	238 - 243 °C
Loss on Drying	≤ 3.0% (120°C, 3h)
Assay	≥ 99.0% (dried basis)
Synonym	TT, TPTZ, TTZ, Tetrazolium Red