91228 Trichloroacetic acid (TCA)

**CAS Number:** 76-03-9

**Product Description:**

- **Molecular Formula:** \( \text{C}_2\text{HCl}_3\text{O}_2 \)  
- **Molecular Weight:** 163.4 g/mol  
- **Melting Point:** 57-58 °C  
- **Boiling Point:** 196-197 °C  
- **pH-Wert:** < 1.0 (0.5 M in H\(_2\)O, 25 °C)  
- **\( A_{260\text{nm}} \) (0.5 M in H\(_2\)O):** 1.60  
- **\( A_{280\text{nm}} \) (0.5 M in H\(_2\)O):** 0.15

Trace elemental analyses have been performed on the Biochemika Ultra TCA. Biochemika Ultra TCA is for applications which require tight control of elemental content. Trichloroacetic acid (TCA) is a reagent that is used for the precipitation of proteins\(^2\),\(^3\) and nucleic acids.\(^4\) TCA is also used as a decalifier and fixative in microscopy. Addition of TCA to a final concentration of 10% (w/v) will precipitate most proteins from solution. A final concentration of 20% (w/v) may be required for smaller proteins of molecular weight less than 20 kDa. The excess TCA can be removed from protein pellets by washes with buffer.\(^5\) A procedure for the recovery of protein from dilute solutions has been reported.\(^3\)

For the precipitation of nucleic acids, a 5% solution of ice cold TCA has been used.\(^4\)

**Solubility / Stability:**

A 100% (w/v) solution of TCA can be made by the addition of 227 ml of water to 500 g of TCA.\(^5\) The resulting clear solution will have a density of approximately 1.45 g/ml. Do not use plastic dishes and containers. Solution storage temperature 2-8 °C

**Precautions and Disclaimer:**

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

**References:**

1. The Merck Index, 12th ed., Entry # 9756.
6. Fluka quality control.