



>>Entry Name: **Tris(acetato-*O*)hydroborate(1-)**, 10CI

Synonym(s): Triacetoxymethylborohydride(1-). Triacetoxymethylborate(1-)

Related CAS Registry Numbers(s): 83722-99-0 109704-53-2

$[\text{BH}(\text{OAc})_3]^{(-)}$

Molecular Formula: $\text{C}_6\text{H}_{10}\text{BO}_6^{(-)}$

Molecular Weight: 188.952

Accurate Mass: 189.057045

Percentage Composition: C 38.14%; H 5.33%; B 5.72%; O 50.80%

>>Derivative: Na salt

Synonym(s): Sodium triacetoxymethylborohydride

CAS Registry Number: 56553-60-7

Molecular Formula: $\text{C}_6\text{H}_{10}\text{BNaO}_6$

Molecular Weight: 211.942

Percentage Composition: C 34.00%; H 4.76%; B 5.10%; Na 10.85%; O 45.29%

Source/Synthesis: Synth. from $\text{NaBH}_4 + \text{AcOH}$

Use/Importance: Mild, selective reducing agent

Physical Description: Hygroscopic solid

Aldrich: 31639-3

Fluka: 72062

>>Derivative: Me_4N salt

Molecular Formula: $\text{C}_{10}\text{H}_{22}\text{BNO}_6$

Molecular Weight: 263.098

Percentage Composition: C 45.65%; H 8.43%; B 4.11%; N 5.32%; O 36.49%

Source/Synthesis: Synth. from $\text{Me}_4\text{N}[\text{BH}_4] + \text{AcOH}$

Use/Importance: Mild reducing agent

Physical Description: V. hygroscopic white powder or prismatic needles ($\text{EtOAc}/\text{CH}_2\text{Cl}_2$)

Melting Point: Mp 96.5-98°

References:

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 553; 1986, **12**, 453; 1988, **13**, 283, (use)

Org. Prep. Proced. Int., 1985, **17**, 317, (rev)

Evans, D.A. *et al.*, *J.A.C.S.*, 1988, **110**, 3560, (synth, ir, pmr, B-11 nmr, use)