



>>Entry Name: Tribromoacetaldehyde

Synonym(s): Tribromoethanal. Bromal

CAS Registry Number: 115-17-3

Br₃CCHO

Molecular Formula: C₂HBr₃O

Molecular Weight: 280.741

Accurate Mass: 277.817748

Percentage Composition: C 8.56%; H 0.36%; Br 85.39%; O 5.70%

Biological Source: Isol. from *Asparagopsis* spp.

Use/Importance: Formerly used as hypnotic

Physical Description: Yellowish oily liq.

Boiling Point: Bp 174° dec.. Bp₉ 61°

Solubility: Sol. H₂O, EtOH

Density: d₄²⁵ 2.665

Aldrich: T4800-3

Fluka: 16180

>>Derivative: Covalent hydrate

Synonym(s): 2,2,2-Tribromo-1,1-ethanediol. Bromal hydrate

CAS Registry Number: 507-42-6

Molecular Formula: C₂H₃Br₃O₂

Molecular Weight: 298.756

Accurate Mass: 295.828313

Percentage Composition: C 8.04%; H 1.01%; Br 80.24%; O 10.71%

Physical Description: Deliquescent cryst.

Melting Point: Mp 53.5°

Solubility: Sol. H₂O, EtOH, CHCl₃

>>Derivative: Hydrate, di-Ac

Synonym(s): 1,1,1-Tribromo-2,2-diacetoxyethane. Tribromoethylidene diacetate

Molecular Formula: C₆H₇Br₃O₄

Molecular Weight: 382.831

Accurate Mass: 379.849443

Percentage Composition: C 18.82%; H 1.84%; Br 62.62%; O 16.72%

Melting Point: Mp 77-78°

>>Derivative: Di-Et acetal

Synonym(s): 1,1,1-Tribromo-2,2-diethoxyethane

Molecular Formula: C₆H₁₁Br₃O₂

Molecular Weight: 354.864

Accurate Mass: 351.890913

Percentage Composition: C 20.31%; H 3.12%; Br 67.55%; O 9.02%

Boiling Point: Bp_{22.5} 138-141° (lit. gives a pressure range)

References:

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Cristol, S.J. *et al.*, *J.A.C.S.*, 1946, **68**, 140, (*di-Ac*)

Jain, S.R. *et al.*, *Tetrahedron*, 1964, **20**, 1589, (*hydrate*)

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