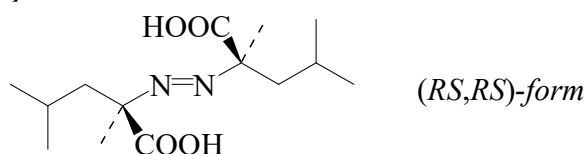




>>Entry Name: 2,2'-Azobis[2,4-dimethylpentanoic acid]



CAS Registry Number: 86249-81-2

Molecular Formula: C₁₄H₂₆N₂O₄

Molecular Weight: 286.37

Accurate Mass: 286.189258

Percentage Composition: C 58.72%; H 9.15%; N 9.78%; O 22.35%

>>Variant: (*RS,RS*)-form

Synonym(s): (±)-form

Molecular Formula: C₁₄H₂₆N₂O₄

Molecular Weight: 286.37

Accurate Mass: 286.189258

Percentage Composition: C 58.72%; H 9.15%; N 9.78%; O 22.35%

>>Derivative: Dinitrile

Synonym(s): 2,2'-Azobis[2,4-dimethylpentanenitrile], 9Cl. 2,2'-Azobis[2,4-dimethylvaleronitrile]. 2,2'-Azobis[methylisobutylacetonitrile]. 2,2'-Dicyano-4,4'-dimethyl-2,2'-azobispentane. 1,1'-Dicyano-1,1',3,3'-tetramethyl-1,1'-azobisbutane. V 65B

CAS Registry Number: 108346-40-3

Extra CAS Registry Numbers(s): 4419-11-8

Molecular Formula: C₁₄H₂₄N₄

Molecular Weight: 248.37

Accurate Mass: 248.200096

Percentage Composition: C 67.70%; H 9.74%; N 22.56%

Use/Importance: Polym. initiator through formn. of free radicals on mild thermal dec. or uv excitation. Catalyst for polym. of vinyl monomers

Physical Description: Plates (Et₂O/petrol)

Melting Point: Mp 57.5-59° (56-57°)

Other Data: Coml. samples are mixts. of (±)- and *meso*-stereoisomers, both doubtless with (*E*)-azo config. Activation energy 48.4 Kcal/mol

Aldrich: 42104-9

Other: Wako

>>Variant: (*RS,SR*)-form

Synonym(s): *meso*-form

Molecular Formula: C₁₄H₂₆N₂O₄

Molecular Weight: 286.37

Accurate Mass: 286.189258

Percentage Composition: C 58.72%; H 9.15%; N 9.78%; O 22.35%

>>Derivative: Dinitrile

CAS Registry Number: 108346-39-0

Molecular Formula: C₁₄H₂₄N₄

Molecular Weight: 248.37

Accurate Mass: 248.200096

Percentage Composition: C 67.70%; H 9.74%; N 22.56%

Physical Description: Plates (Et₂O/petrol or Et₂O)

Melting Point: Mp 77.5-79.5° (75-76°)

References:

U.S. Pat., 1947, 2 469 358; *CA*, **43**, 6652, (*dinitrile*)

Overberger, C.G. *et al.*, *J.A.C.S.*, 1949, **71**, 2661-2666; 1951, **73**, 2618-2621, (*dinitrile*)

Mendenhall, G.D. *et al.*, *J. Phys. Chem.*, 1985, **89**, 2849-2851, (*dinitrile, props*)

Danek, S.K. *et al.*, *J.O.C.*, 1987, **52**, 2911-2919, (*dinitrile, synth, ir, pmr, cmr, ms*)