



>>Entry Name: Tetrakis(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)cerium(IV), 9Cl

Synonym(s): Cerium(IV) dipivaloylmethanide

CAS Registry Number: 18960-54-8

As Tetrakis(2,2,7-trimethyl-3,5-octadionato-*O,O'*)cerium, [HVR53-M](#) with
 $R^1 = R^2 = C(CH_3)_3$

Molecular Formula: $C_{44}H_{76}CeO_8$

Molecular Weight: 873.195

Accurate Mass: 872.459453

Percentage Composition: C 60.52%; H 8.77%; Ce 16.05%; O 14.66%

Source/Synthesis: Synth. from $CeCl_3$ and Na(tmhd), or from $CeCl_3(H_2O)_7$ and H(thd) in NaOH/EtOH aq.

Use/Importance: Potential use in reducing noxious exhaust emissions and antiknock agent; more efficient than $PbEt_4$ in some respects. Use as antiknock agent prolongs catalytic converter life. Studied as MOCVD precursor for CeO_2

Physical Description: Dark brown-red solid

Melting Point: Mp 276 dec.°. Mp 270°

Boiling Point: Subl._{0.1} 180°

Solubility: Sol. xylene, MeCN, common org. solvs.

Other Data: Diamagnetic

Other: Gelest AKC191

References:

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