



>>Entry Name: Titanium hydroxide oxide (Ti(OH)₂O), 11Cl

CAS Registry Number: 12026-28-7

Related CAS Registry Numbers(s): 12738-89-5

$[-O-Ti(OH)_2-O-Ti(OH)_2-]_n$

Molecular Formula: H₂O₃Ti

Molecular Weight: 97.894

Accurate Mass: 97.948342

Percentage Composition: H 2.06%; O 49.03%; Ti 48.91%

Source/Synthesis: Synth. by hydrol. of Ti(O^{*i*}Pr)₄ in ^{*i*}PrOH or in the system TiCl₄/NH₄OH/H₂O at pH 8-8.5. Manuf. from alkaline Ti solns. under high shear conditions

Use/Importance: Cation adsorber, esp. for actinides for waste disposal

Physical Description: White solid which dehydrates to anatase or rutile depending on temp.

References:

Limar', T.F. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1969, **14**, 1213, (*synth, ir, pmr*)

U.S. Pat., 1972, 3 689 219; *CA*, **78**, 60300t, (*manuf*)

Karmakar, B. *et al.*, *Trans. Indian Ceram. Soc.*, 1985, **44**, 10, (*synth*)