



Designation: D 4328 – 9703

Standard Practice for Calculation of Supersaturation of Barium Sulfate, Strontium Sulfate, and Calcium Sulfate Dihydrate (Gypsum) in Brackish Water, Seawater, and Brines¹

This standard is issued under the fixed designation D 4328; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers the calculation of supersaturation of barium sulfate, strontium sulfate, and calcium sulfate dihydrate (gypsum) in brackish water, seawater, and brines in which barium, strontium, and calcium ions either coexist or exist individually in solution in the presence of sulfate ions.

1.2 This practice is not applicable for calculating calcium sulfate dihydrate supersaturation if the temperatures of saline waters under investigation exceed 95°C. At temperatures above 95°C, hemianhydrate and anhydrite would be major insoluble forms.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

¹ This practice is under the jurisdiction of ASTM Committee D19 on Water and is the direct responsibility of Subcommittee D19.05 on Inorganic Constituents in Water. Current edition approved Dec. 10, 1997; 2003. Published December 1998; January 2003. Originally published as D 4328-84; approved in 1984. Last previous edition approved in 1997 as D 4328-84 (1993)¹; 4328-97.