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Standard Terminology Relating to Water^{1,2}

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This standard has been approved for use by agencies of the Department of Defense.

accuracy—a measure of the degree of conformity of a value generated by a specific procedure to the assumed or accepted true value, and includes both precision and bias.

acidity—the quantitative capacity of aqueous media to react with hydroxyl ions.

acidity, free mineral—the quantitative capacity of aqueous media to react with hydroxyl ions to pH 4.3.

acidity, theoretical free mineral—the free mineral acidity that would result from the conversion of the anions of strong acids in solution to their respective free acids.

analyte—a possible sample component whose presence and concentration is of interest.

anion-exchange material—a material capable of the reversible exchange of negatively charged ions.

alkalinity—the quantitative capacity of aqueous media to react with hydrogen ions.

bias—the persistent positive or negative deviation of the method average value from the assumed or accepted true value.

biological deposits—deposits of organisms or the products of their life processes.

blank—matrix carried through all or part of the analytical process, where the analyte is not present, or where the analyte response is suppressed.

NOTE 1—A blank must be appropriate to the analytical process it is being used with.

NOTE 2—A blank is typically used to monitor contamination or to establish a baseline for quantitation.

brackish water—water that contains dissolved matter at an approximate concentration range from 1000 to 30 000 mg/L.

brine—water that contains dissolved matter at an approximate concentration of more than 30 000 mg/L.

cation conductivity—a conductivity measurement performed on water after cations have been exchanged for protons using cation exchange media.

cation-exchange material—a material capable of the reversible exchange of positively charged ions.

caustic embrittlement—a form of metal failure that occurs in steam boilers at riveted joints and at tube ends, the cracking being predominantly intercrystalline.

chlorine requirement—the amount of chlorine required to achieve, under specified conditions, the objectives of chlorination.

chlorine residual—the amount of available chlorine present in water at any specified time.

chlorine, combined available—residual chlorine combined with ammonia nitrogen or nitrogenous compounds.

chlorine, free available—the hypochlorite ions (OCl^-), hypochlorous acid (HOCl) or the combination thereof present in water.

chlorosity—the concentration of the dissolved chloride equivalent in water at 20°C.

composite sample—a combination of two or more samples.

concentrate (reverse osmosis)—the residual portion of an aqueous solution applied to a membrane.

control analyses—the determination of specific parameters used as criteria for proper operation of a system.

corrosion products—products that result from chemical or electrochemical reaction between a metal and its environment.

dispersion staining—the color effects produced when a transparent object, immersed in a liquid having a refractive index near that of the object is viewed under the microscope by a transmitted light and precise-aperture control.

dissolved matter—that matter, exclusive of gases, which is dispersed in water to give a single homogeneous liquid phase.

duplicate sample—one of two (2) representative portions taken from the same sample or sample source.

electrical conductivity—the reciprocal of the resistance in ohms measured between opposite faces of a centimetre cube of an aqueous solution at a specified temperature.

equivalent per million (epm)—a unit chemical equivalent weight of solute per million unit weights of solution.

fixed matter—residues from the ignition of particulate or dissolved matter, or both.

flow-proportioned sample—a sample obtained by collecting an aliquot volume in proportion to the rate of flow of the stream sampled.

ghosting—a gas-chromatographic interference, showing as a

¹ This terminology is under the jurisdiction of ASTM Committee D-19 on Water and is the direct responsibility of Subcommittee D19.02 on General Specifications, Technical Resources, and Statistical Methods.

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² A Summary of Changes section appears at the end of this terminology.