I'm not a bot

Hypoiodous acid is an inorganic compound with the chemical formula HIO. It forms when an aqueous solution of iodine is treated with mercuric or silver salts. The acid rapidly decomposes by disproportionation, releasing iodine and water. This reaction can be represented as: 5 HIO → HIO3 + 2 I2 + 2 H2O ###ARTICLEHypoiodous acid is an inorganic compound with the chemical formula HIO, composed of hydrogen, iodine, and oxygen. Its synthesis involves treating an aqueous solution of iodine with mercuric or silver salts, resulting in a weak acid that rapidly decomposes by disproportionation into hydroxyl iodate and iodine. sodium hypochlorite is formed which undergoes hydrolysis to give hypoiodous acid. 2NaOH + I2 → NaIO + NaI + H2O NaIO + H2O → NaOH + HOI Another reaction possible is Hypoiodous Acid Structure – HOI Physical Properties of Hypoiodous Acid – HOI Odour No odour Appearance Greenish-yellow solution Covalently-Bonded Unit 1 Heavy Atom Count 2 Complexity 2 Solubility in water Soluble in water Uses of Hypoiodous Acid – HOI Used as a strong oxidizing agent and is used in rocket fuels and as an insulator. Used as an active agent in microbial destruction and the major iodine compounds used for sanitizing are iodophors, alcohol-iodine solutions, and aqueous iodine solutions. Used in atmospheric samplers so as to explain the abnormally high organic fractions reported by other investigators. Used as a source of ‘OH radicals. Used to eliminate chloramines from swimming pool water to avoid the build-up of eye irritants. Used in atmospheric samplers so as to explain the abnormally high organic fractions reported by other investigators. Used as a source of ‘OH radicals. Used to eliminate chloramines from swimming pool water to avoid the build-up of eye irritants. The conjugate base of hypoiodous acid is hypoiodite.The chemical formula of hypoiodous acid is HIO which is formed by the reaction of iodine with water and its chemical equation is I2 + H2O HIO + H+ + I+.The dissociation of hypoiodous acid takes place at pH = 4. HIO H+ + IO–. Put your understanding of this concept to test by answering a few MCQs. Click ‘Start Quiz’ to begin! Select the correct answer and click on the “Finish” buttonCheck your score and answers at the end of the quiz Visit BYJU’S for all Chemistry related queries and study materials 0 out of 0 arewrong 0 out of 0 are correct 0 out of 0 are Unattempted View Quiz Answers and Analysis