

From "Toxicology or The Effects of Poisons". by Frank P. Underhill, Ph.D., Professor of Pharmacology and Toxicology, School of Medicine, Yale University.

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Hydrofluoric Acid (HF)

"-----The vapors possess a penetrating odor and are toxic. Brought into contact with the skin, the acid causes painful burns which heat slowly. -----Hydrofluoric acid alone of all the acids possesses the property of dissolving silicic acid, which is utilized technically for etching glass. Because of this property hydrofluoric acid must be kept in platinum, wax, or hard rubber containers.

"Inhalation of the fumes of the acid causes deep ulcers in the respiratory tract. They are distinctly caustic to the skin and the conjunctiva. The red corpuscles are disintegrated resulting in anemia.

"At times fluorosilicic acid may cause death. This has been used principally as vermin exterminator and disinfectant. -----"

Flourides

"The fluoride commonly encountered is the sodium fluoride. This must be regarded as a general protoplasmic poison. -----"

"Sodium fluoride is especially used as a compound of roach powders-----."

"Taken by mouth the systemic effects of fluorides resemble those of oxalates and perhaps the cause is the same, namely, the formation of insoluble calcium compounds."

"Although the fluoride is absorbed from the alimentary tract with difficulty its excretion by the kidney is also difficult. It is stored in the various organs as calcium fluoride. In the bones such storage impairs their nutrition and makes them whiter, harder and more brittle."

"The local action in the gastro-intestinal tract induces salivation, retching, vomiting, gastro-enteritis which may cause sloughing of the entire epithelium. Later there may be neuralgias, cardiac weakness, dropsies, phlebitis, albuminuria."

"FATAL DOSE---The fatal dose for man is unknown. Experimentally in animals, the fatal dose by mouth is about 0.5 gram per kilo.-----"

From "The Pharmacological Basis of Therapeutics"---A Textbook of Pharmacology, Toxicology and Therapeutics for Physicians and Medical Students by Louis Goodman, MA, MD, Professor of Pharmacology, University of Utah School of Medicine, Salt Lake City, Utah, and Alfred Gilman, PH.D., Associate Professor of Pharmacology, College of Physicians and Surgeons, Columbia University, New York City.

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Flourides

"The fluorides are not used in therapeutics and are of interest chiefly because of their toxic properties. -----"

"Fluoride is readily absorbed from the intestinal tract but differs from other halogens in its slow excretion. Consequently, it accumulates in the body."

"The deposition of fluoride in bone is thought to result from the formation of insoluble calcium fluoride at that site."

"Although the fluoride ion occurs in all body tissues, there is no evidence that it serves a specific physiological function. It is probable that its presence is merely