

1932

Iodine Monochloride

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Recommended Citation

Cornog, Jacob; Karges, R. A.; and Horrabin, H. W. (1932) "Iodine Monochloride," *Proceedings of the Iowa Academy of Science*, 39(1), 159-159.
Available at: <https://scholarworks.uni.edu/pias/vol39/iss1/28>

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IODINE MONOCHLORIDE

JACOB CORNOG, R. A. KARGES, AND H. W. HORRABIN

Iodine monochloride may be prepared in quantity and of superior quality by the reaction between solid iodine and liquid chlorine at -78° .

Vapor pressure measurement of iodine monochloride between 30° and 60° indicate that it is a polar substance.

If Ammonium chloride or potassium chloride is dissolved in liquid iodine monochloride conducting solutions are formed.

When iodine monochloride reacts with common salts and chemical reaction ensues the reaction is usually either direct addition or else is solvolytic.

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COMPARATIVE COST OF SOAP AS A WATER SOFTENER

O. E. LOWMAN

A Freshman Chemistry Experiment

Alcoholic solutions of equal weights of different brands of soaps are made up by the instructor. No attempt is made to standardize these solutions against a standard calcium chloride solution. These solutions should be distinguished by letter rather than by name. One or more students may be assigned to same soap solution.

The students measure 50 cc. of distilled water in 250 cc. glass-stoppered bottles. Soap solution is added from a burette, 0.2 to 0.3 cc. at a time, shaking the bottle vigorously after each addition until a lather remains unbroken for 5 minutes over the entire surface while the bottle lies on its side. The number of cc. used to produce a permanent lather should be recorded. The **same procedure** should be used for a sample of tap water.

A table of results is compiled from data furnished by the students showing the number of cc. of solution required to soften a liter of water, the number of grams of soap required, and the cost of each soap to soften a liter or gallon of water.

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