

# FOODS AND DRUGS

## LABORATORY

OF THE

### DEPARTMENT OF TRADE AND COMMERCE

OTTAWA, CANADA

BULLETIN No. 419

#### WATER GLASS (Sodium Silicate.)

OTTAWA, January 3, 1919.

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Deputy Minister of Trade and Commerce.

SIR,—Water Glass (essentially sodium silicate) is not a food; but it has come to be so largely used as a preservative for eggs and its relation to this most important food is so very close, that a special report in connection therewith is justified. My attention was first called to the article by a letter of date 27th April, 1918. It was pointed out that Water Glass as sold in Canada was a very variable article, sometimes thin, sometimes quite thick and viscous; while the quantity supplied in tins of similar size varied considerably. It was further stated that, while excellent results in egg-preservation were commonly obtained, a considerable number of failures had occurred, presumably due to the too great dilution of the preservative liquid.

The following directions for the use of Water Glass are given in the Weekly News Letter of 14 August, 1918 (Dept. of Agriculture, U.S.A.)—

"Dissolve 1 quart of Sodium Silicate in 9 quarts of water. This is sufficient for 15 dozen eggs."

It will be seen in the sequel that the amount of actual sodium silicate contained in the solutions on our markets varies from about 30 per cent. to about 55 per cent. If the user of the article is led to believe that he is dealing with actual sodium silicate, it is manifest that serious mistakes must be made.

The standardization of commercial water glass is therefore necessary and I believe that the excellent report furnished by Mr. Rowat of this staff, to whom this investigation was entrusted, will be found sufficiently complete to enable your Advisory Board to recommend practicable standards.

It may be well here to state that both vaseline and lime water have been found to be fairly satisfactory in the preservation of eggs. Dr. Longworthy, (Farmers' Bulletin No. 128, Dept. of Agriculture, U.S.A.) says: "Some of the eggs were