

New Method of Iodizing Rock Salt

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I. An initial addition of potassium iodate to the rock salt brine while boiling.

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Abstract

Rock salt was iodized by a novel method of adding potassium iodate to the brine at the beginning of the boiling operation. Using local boiling and drying procedures, moisture of approximately 14 per cent was routinely achieved. At constant moisture in the salt pile, a relationship exists between the iodine concentration of the salt and the starting concentration of iodine in the brine. The relationship may be described by the equation $[LSALT] = 0.0034 [LSTART]^2 + 0.276 [LSTART] + 5.97$ ppm with a correlation coefficient (R) in excess of 0.99 .

The equation is useful in determining the amount of potassium iodate to be added to the brine in order to obtain a desired level of iodization.

The iodized rock salt crystals obtained from boiling the brine appeared somewhat whiter and finer than un-iodized rock salt.