CHLORIDE OF LIME IN SANITATION

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649547388

Chloride of Lime in Sanitation by Albert H. Hooker

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

www.triestepublishing.com

ALBERT H. HOOKER

CHLORIDE OF LIME IN SANITATION

Trieste

CHLORIDE OF LIME

IN

SANITATION

BY

ALBERT H. HOOKER

Technical Director
Hooker Electrochemical Company

NEW YORK
JOHN WILEY & SONS
LONDON: CHAPMAN & HALL, LIMITED
1913

Douglas C. McMurtrie
298 Metropolitan Tower
New York City

CONTENTS

PREFACE

ON THE advice of Dr. L. H. Baekeland, President of the American Institute of Chemical Engineers, and chemical counsel of the Hooker Electrochemical Company, the research department of the latter company undertook to collect all data relating to the uses of chloride of lime in sanitation.

An unexpectedly large amount of important information was thus obtained, and the fact was clearly revealed that this inexpensive chemical was one of the most valuable and economical agents available for the protection, in many ways, of the public health.

It, therefore, seemed almost a duty to place before sanitarians and those in charge of work connected with public health, the information brought together, all of which is not readily accessible. Hence this book was written.

Instead of presenting a dry enumeration of bibliographical abstracts, it was thought preferable to offer the subject in a somewhat more connected form in several chapters, each dealing with a different problem of sanitation.

The reader who desires more information may find it in the chapter of abstracts where subjects can be traced further to the original sources of information.

I desire to express my thanks for the valuable aid received from Mr. O. C. Hagemann, who was employed for collecting the bibliographical references, and to Dr. Baekeland, whose continuous advice and assistance inspired our enthusiasm to publish this work.

ALBERT H. HOOKER,

Niagara Falls, N. Y., August, 1912.

CHLORIDE OF LIME.

FEW elements are more widely distributed than chlorine. We find it in combination with the metal sodium as chloride of sodium, or common salt, in inexhaustible quantities in sea-water, or as large mineral deposits of rock salt. Its very presence in our blood seems to be a physiological necessity. Yet the discovery of this element is of relatively recent date.

We owe the discovery of chlorine to the famous Swedish chemist, Scheele, born in 1842. It is a heavy gas, of green color, and of very corrosive properties. It attacks violently metals and organic bodies. It is soluble in water and gives a greenish solution of irritating smell, which soon decomposes, specially when exposed to light. The gas can be liquefied by compressing it in special machines. If care be taken to exclude all moisture, this liquefied chlorine can be kept and transported in strong steel cylinders and has become a commercial article, which is now manufactured in the United States as well as in other countries, like Germany.

Berthollet, the French chemist, in 1785, as the result of careful investigations, declared chlorine to be an *oxygenated muriatic acid* (acide muriatique oxygen). But it was not until 1810 that Sir Humphry Davy definitely showed chlorine to be a chemical element, and not a compound. He gave it the name chlorine from the Greek $\chi\lambda o\rho o\varsigma$ = green.

In the early days, after Berthollet observed that chlorine gas possessed the remarkable property of destroying the color of vegetable substances with which it came in contact, he happened to have with him as a visitor, a young Englishman, no less a personage than James Watt, to whom he showed the bleached articles. Watt was deeply impressed, and at once thought of his Scotch home, where his father-in-law was engaged in a large way in the time-honored staple industry of linen bleaching which for centuries had given character to wide stretches of rural Scotland.