Trihalomethanes Encyclopedia Article

Trihalomethanes

The following sections of this BookRags Literature Study Guide is offprint from Gale's For Students Series: Presenting Analysis, Context, and Criticism on Commonly Studied Works: Introduction, Author Biography, Plot Summary, Characters, Themes, Style, Historical Context, Critical Overview, Criticism and Critical Essays, Media Adaptations, Topics for Further Study, Compare & Contrast, What Do I Read Next?, For Further Study, and Sources.

(c)1998-2002; (c)2002 by Gale. Gale is an imprint of The Gale Group, Inc., a division of Thomson Learning, Inc. Gale and Design and Thomson Learning are trademarks used herein under license.

The following sections, if they exist, are offprint from Beacham's Encyclopedia of Popular Fiction: "Social Concerns", "Thematic Overview", "Techniques", "Literary Precedents", "Key Questions", "Related Titles", "Adaptations", "Related Web Sites". (c)1994-2005, by Walton Beacham.

The following sections, if they exist, are offprint from Beacham's Guide to Literature for Young Adults: "About the Author", "Overview", "Setting", "Literary Qualities", "Social Sensitivity", "Topics for Discussion", "Ideas for Reports and Papers". (c)1994-2005, by Walton Beacham.

All other sections in this Literature Study Guide are owned and copyrighted by BookRags, Inc.

Contents

Trihalomethanes Encyclopedia Article.....1

Contents.....2

Trihalomethanes.....3

Trihalomethanes

Trihalomethanes (THMs) are organic **chemicals** composed of three halogen atoms (primarily **chlorine** and **bromine**) and one **hydrogen** atom bound to a single **carbon** atom. They are commonly used as solvents in a variety of applications, and trichloromethane (or chloroform) was once used by medical doctors as an anesthetic. In 1974, Johannes Rook of the Netherlands discovered the presence of THMs in chlorinated drinking water. He and other researchers subsequently demonstrated that minute quantities of THMs are formed during **water treatment**. Chlorine, when added to disinfect the water, reacts with naturally occurring organic matter present in the water. **Groundwater** can also be contaminated with THMs if people use them improperly, release them accidentally, or dispose of them unsuitably. Since high dosages of chloroform had been found to produce **cancer** in mice and rats, the United States **Environmental Protection Agency** (EPA) amended the drinking water standards in 1979 to limit the concentration of THMs to a sum total of 100 parts ber billion, or 0.1 mg/l. In 1998, a more stringent limit of 0.08 mg/l was introduced.

See Also

Carcinogen; Drinking-Water Supply; Water Quality Standards