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Nota di contenuto	Production-Integrated Environmental Protection and Waste Management in the Chemical Industry; Contents; 1. Introduction; 2. Production-Integrated Environmental Protection in the Chemical Industry; 2.1. Chemical Industry and Sustainable Development.; 2.2. Formation of Residues in Chemical Processes; 2.3 Environmental Concepts in the Chemical Industry; 2.3.1. Review of the Environmental Concepts.; 2.3.2. The Concept of Integrated Environmental Protection; 2.3.3. Environmental Protection in Research and Development; 2.3.4. Integrated and Additive Concepts of Environmental Protection 2.3.5. Comparison of Integrated and Additive Environmental Protection 2.3.6. Methods of material flow and cost management; 2.4. Limitations of Production-Integrated Environmental Protection; 2.4.1. Technical Limitations; 2.4.2. Economic Limitations; 2.5. Effect of Production-Integrated Environmental Protection; 2.6. Costs of

Integrated Measures; 3. Examples of Production- Integrated Environmental Protection in the Chemical Industry; 3.1. Introduction; 3.2. Selected Examples; 3.2.1. Examples from Hoechst; 3.2.1.1. Recovery and Utilization of Residues in the Production of Viscose Staple Fiber
3.2.1.2. Recovery of Methanol and Acetic Acid in Poly (Vinyl Alcohol) Production
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3.2.5.2. Production of Acetylene by the Hiils Plasma Arc Process

Sommario/riassunto

Production-integrated environmental protection is synonymous with - reducing the amount of potential pollutants at source- reducing the consumption of resources and energy- recycling and utilization of residues and used products, and therefore a topic of considerable current interest. No chemical process exists that produces only the product desired. Therefore it is an important aim of the chemical industry to reduce the environmental effects of residues of chemical processes. This can be achieved by:- optimizing processes- applying new syntheses
