



---

## **WASTEWATER FROM WINEMAKING INDUSTRY: MONITORING AND POSSIBILITIES TO DECREASE POLLUTION LOADS**

**Irina Volf<sup>\*</sup>, Carmen Teodosiu**

*Technical University Iasi, Faculty of Industrial Chemistry, Department of Environmental  
Engineering and Management, Bd. D.Mangeron 71 A, 700050, Iasi, Romania*

---

### **Abstract**

Apart from wines, the winemaking industry produces by-products that are of interest for other industrial processes, but also different wastes in solid and liquid form. Due to the specificity of this activity, the campaigns for conditioning of young wines (April- June) and of grape processing (September-November) are generally accompanied by increased loads of organics, suspended solids, resulting in problems of compliance with legislation for disposal in the sewerage system and subsequently in biological operational problems such as: decreased sludge settleability, floc disintegration at the wastewater treatment plants.

This paper presents the results of the monitoring of wastewater quality during 3 years (2001- 2003) at the Research and Development Institute for Viticulture and Winemaking in Iasi and also discusses these results in view of the actual production and wastewater pre-treatment process. Considering the size of the wine making production facility and the actual overloads (depicted in quality indicators such as: COD, BOD, suspended solids, sulphides), it was found out that a better control of the production process as well as that of wastewater treatment is necessary.

Thus, completion of the mechanical pre-treatment with a coagulation-flocculation stage and a better control of the constant sludge removal from the sedimentation tank (to prevent the occurrence of anaerobic fermentations that produce sulphides) are necessary. As for the reduction of the total sulphides concentrations, it is necessary to identify and to reduce as much as possible the irrational consumption of aseptically and antioxidant substances (SO<sub>2</sub>).

*Keywords:* monitoring, waste water, winemaking process

---

---

<sup>\*</sup> Author to whom all correspondence should be addressed: e-mail: Phone: +40-232-278683, e-mail: [itudose@ch.tuiasi.ro](mailto:itudose@ch.tuiasi.ro)