

# Experimental Study on Waste Water Treatment (Waste Water Treatment That Generate From Leather Industry): Review

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**Abstract** - The consumption of resources and energy based on human activities followed by huge amount of wastes has being one of the most serious problems all over the world. It leads to terrible destruction of the global or regional environment, and its negative effects on human being's health as well as global ecosystem are appearing evidently. It is therefore necessary to establish the effective technology, i.e., prevention of emissions and saving resources and energy. Water is our most precious resource. The cleanliness of our lakes, rivers and oceans is one of the pressing goals for environmental protection.

**Keywords** - Biochemical oxygen demand, biochemical reactions, side product, Sulphuric acid, waste water, mega-leather industry

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## I. INTRODUCTION

The objective of this study is to analyze the various chemical present in waste water and treat that waste water with various chemical to decrease the efficiency of the waste. The sludge that generate can be used for the various purpose.

## II. LITERATURE REVIEW

The balance of nature depends therefore on the comprehensiveness of our approach to solve the problem of wastewater disposal. If water of high organic matter content or biochemical oxygen demand (BOD) value flows into a river, the bacteria in the river will oxidize the organic matter consuming oxygen from the water faster than it dissolves back in from the air. If this happens, fish will die from lack of oxygen, a consequence known as fish kill.

Hence; a stream must have a minimum of about 2 mg/l of dissolved oxygen to maintain higher life forms. In addition to this life-sustaining aspect, oxygen is important because the end products of chemical and biochemical reactions in anaerobic systems often produce aesthetically displeasing colours, tastes and odours in water.

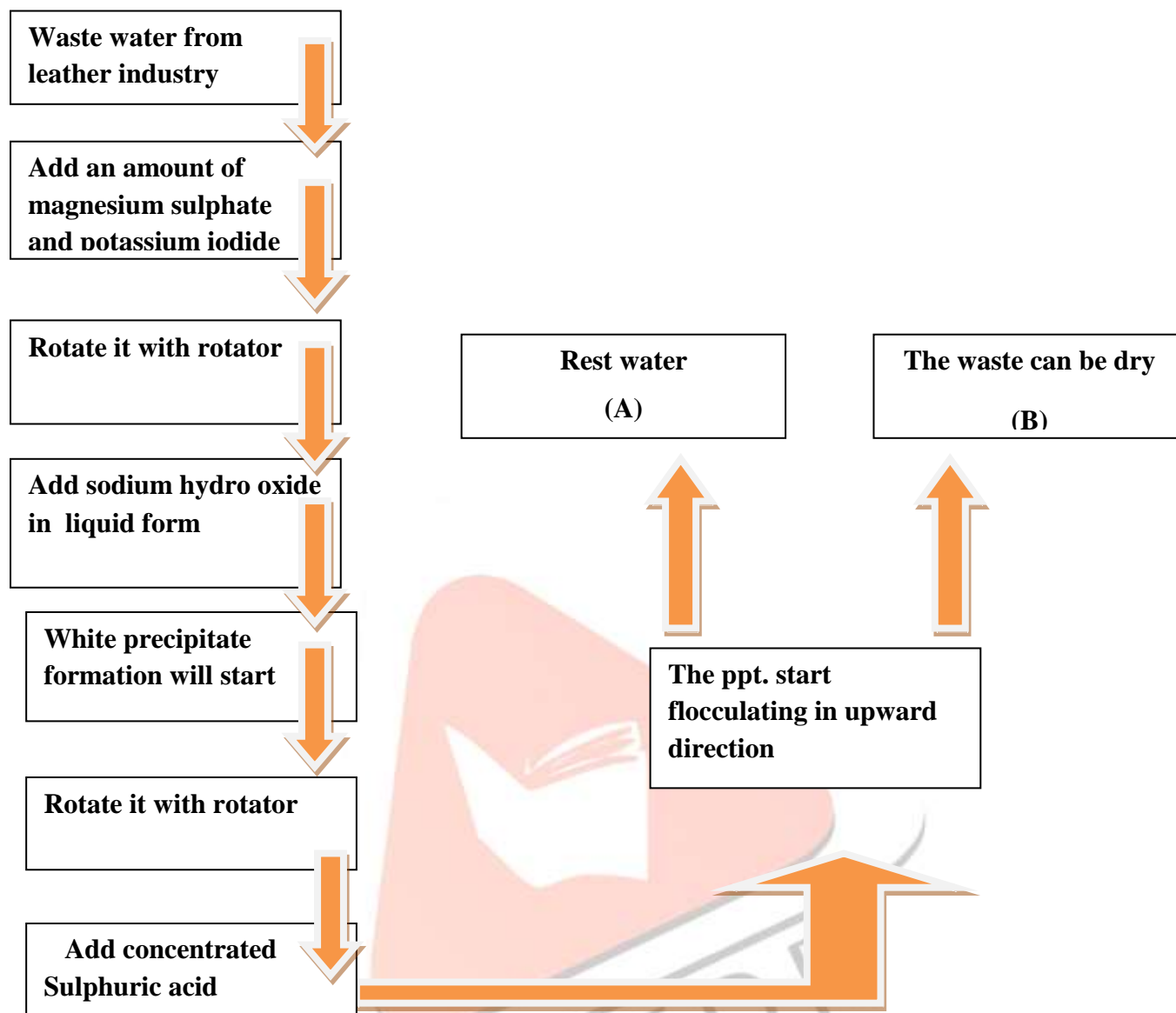
Flow chart for the treatment of leather industry waste water:

A flow chart that can be used for the treatment of the waste water generated form the leather industry and a feasible amount of chemical is thus used for the treatment of the waster and the production of side product by this waste which is generated.

Uses of waste generated A & B:

- i. Waste (A): This waste A generated is in liquid form and can be again used for the same purpose from which it has been generated.
- ii. Waste (B): This waste B is generally in form of semi solid waste and be used for the various purposes after treatment with some adhesive and with other chemicals.

Flow chart follows the following segments



### III. CONCLUSION

As waste water generated by mega-leather industry of the developing world follow the development model of using municipal wastewater treatment technology. This paper tries to define the most efficient and cost-effective, minimum level of treatment needed to address one of the foremost problems of mega-cities, which is public health, putting forward the specific technological proposal of applying chemically enhanced primary treatment. During the past ten years, the combination of low dosages of metal salts, such as ferric chloride, with very small dosages of organic substance. which have resulted in an efficient single-stage treatment process. Which increases flow capacity due to more rapid settling, while others are concerned with effluent disinfection by concentrated sulphuric acid is removal through flocculation.

Defects influence in a negative way the service life of structures. Thus, detection of them even at a very small size is a very important point of view to guarantee and to safe costs.

Thus, a review is done on the basis of various paper and experimentally setup the waste and their classification based on various chemicals and mixture ratio will be discussed. An overview of processing technique developed for the treatment purpose of waste water and their specimen is discussed.

### IV. REFERENCES

- [1] American Journal of Engineering Research (AJER) e-ISSN: 2320-0847 p-ISSN : 2320-0936 Volume-2, Issue-4, pp-127-132 [www.ajer.us](http://www.ajer.us).
- [2] Municipal Wastewater Treatment in Poland – Efficiency, Costs and Returns to Scale. Agnieszka Markowska University of Warsaw Faculty of Economic Sciences e-mail: [amarkowska@wne.uw.edu.pl](mailto:amarkowska@wne.uw.edu.pl).
- [3] International Journal of Advanced Engineering Research and Studies E-ISSN2249–8974 IJAERS/Vol. I/ Issue III/April-June, 2012/275-283 Research Paper TREATMENT OF DISTILLERY WASTEWATER USING MEMBRANE TECHNOLOGIES Pawar Avinash Shivajirao Address for Correspondence Solapur University, Solapur, India.

- [4] <http://www.iwaterwiki.org/xwiki/bin/view/Articles/Watertreatmentforsmalldecentralizedsystems>.
- [5] [http://www.wne.uw.edu.pl/inf/wyd/WP/WNE\\_WP69.pdf](http://www.wne.uw.edu.pl/inf/wyd/WP/WNE_WP69.pdf).
- [6] <https://www.google.co.in/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=research%20paper%20on%20waste%20water%20treatment%20plant>.

