

Accepted Manuscript

Title: Natural adsorbent based on sawdust for removing impurities in waste lubricants

Authors: Xiaohui Chen, Ruting Xu, Yanting Xu, Hui Hu, Shouquan Pan, Hongkun Pan



PII: S0304-3894(18)30072-4
DOI: <https://doi.org/10.1016/j.jhazmat.2018.01.057>
Reference: HAZMAT 19161

To appear in: *Journal of Hazardous Materials*

Received date: 19-10-2017
Revised date: 29-1-2018
Accepted date: 30-1-2018

Please cite this article as: Chen X, Xu R, Xu Y, Hu H, Pan S, Pan H, Natural adsorbent based on sawdust for removing impurities in waste lubricants, *Journal of Hazardous Materials* (2010), <https://doi.org/10.1016/j.jhazmat.2018.01.057>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Natural adsorbent based on sawdust for removing impurities in waste lubricants

Xiaohui Chen^{*[a]}, Ruting Xu^[a], Yanting Xu^[a], Hui HU^[b], Shouquan Pan^[c],
Hongkun Pan^[c]

^a National Engineering Research Center of Chemical Fertilizer Catalyst, School of Chemical Engineering, Fuzhou University, Fuzhou 350002, Fujian, PR China

^b School of Chemical Engineering, Fuzhou University, Fuzhou, 350116, Fujian, P. R. China

^c Fuzhou Savon Environmental Technology Co. Ltd, Fuzhou 350026, China

^{*} Correspondence author. Tel: (+86)591-83731234-8607, fax: (+86)591-83738808;

E-mail: chenxhfzu@fzu.edu.cn (X. Chen).

Highlights

- The sawdust, modified by sodium hydroxide and triethanolamine, was firstly employed for the purification of lubricant.
- The modified sawdust showed excellent adsorption properties for contaminants such as resins and wear metallic particles.
- The modification of alkali and organic amine ameliorate the surface characteristics and pore structure of sawdust.
- This study provides the experimental basis for online application of engines oil filter with sawdust as filter element.

Download English Version:

<https://daneshyari.com/en/article/6968810>

Download Persian Version:

<https://daneshyari.com/article/6968810>

[Daneshyari.com](https://daneshyari.com)