

**PATENT NO. 324671**  
**DE-OILED MUSTARD CAKE BASED ADSORBENT AND PROCESS THEREOF**

**APPLICATION NO.** 1266/DEL/2012

**APPLICANT**

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**ABSTRACT**

The present invention discloses a process for removal of impurities from highly concentrated sugar solutions employing an inexpensive adsorbent material derived from abundantly available eco-friendly material. The de-oiled mustard oil cake based adsorbent of the present invention is prepared by method comprising the steps of providing De-oiled mustard oil cake; washing and drying the De-oiled mustard oil cake to obtain washed and dried mustard oil cake; crushing the washed and dried mustard oil cake; optionally treating with Hydrogen peroxide to oxidize any adhering organic impurities; dehydrating the de-oiled mustard cake to obtain dehydrated De-oiled mustard cake; and Sieving the de-oiled mustard oil cake to obtain desired particle size.

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**CLAIM 1**

A process of refining sugar solutions, comprising the steps of contacting the sugar solution to be refined with a de-oiled mustard cake based adsorbent, wherein the adsorbent having a particle size of 60 to 240  $\mu\text{m}$ , a specific surface in the range of 20 to 30  $\text{m}^2/\text{g}$ , a pore size distribution in the range of 2.8 to 38 nm.