Contaminated magnesium stearate VG EP excipient manufactured by Ferro, supplied by Signet and used in finished pharmaceutical products

Notification to WHO of contaminated magnesium stearate

The World Health Organization (WHO) has received a report from Mylan Laboratories Inc. (Mylan) of a cross-contamination issue affecting an excipient commonly used in pharmaceutical products. The excipient is magnesium stearate VG EP.¹ However, on the basis of the current information available, WHO considers that the cross contamination does not pose a health risk when magnesium stearate VG EP is incorporated at typical levels in finished pharmaceutical products (FPPs).

The risk of contamination was brought to WHO's attention by Mylan Laboratories Inc. (Mylan) who advised that its Indian subsidiary Matrix Laboratories Pvt Ltd (Matrix) had been supplied with several batches of contaminated magnesium stearate VG EP.

Findings

Magnesium stearate VG EP supplied by Ferro Corporation PCEM Group (Ferro) and distributed by Signet Chemical Corporation Pvt. Ltd in India to manufacturers of prequalified formulated products, has been found to be contaminated at varying levels. The contaminated batches were manufactured by Ferro at the Ferro Wayside Plant in Cleveland, Ohio, USA. Ferro supplies magnesium stearate VG EP to Signet, who sells it to its customers, including Mylan.

The risk of contamination affects all batches of magnesium stearate VG EP manufactured by Ferro since a manufacturing change in February 2011. The contamination has been subsequently identified as zeolite (sodium aluminium silicate), calcium hydroxide, dibenzoylmethane, bisphenol A and Irganox 1010.

Mylan have indicated that routine pharmacopeial and goods inwards testing did not identify the contaminants due to these being present at very low levels.

¹ I.e. vegetable grade, manufactured in conformance with the European Pharmacopoeia. Other forms of magnesium stearate produced by Ferro for use in pharmaceuticals have NOT been affected by this problem.
Investigations by Ferro have determined the root cause of the cross contamination to be the incomplete cleaning of air milling equipment first introduced into the Ferro process specific to magnesium stearate VG EP in February 2011.

**Risk assessment**

Risk assessment of the data provided to date by the companies involved, including preclinical toxicological risks, has been performed. In addition, potential for product stability to be affected has been reviewed.

WHO concludes from these reviews that when present at the very low to non-detectable levels observed, that these unintended contaminants in FPPs do not pose a health risk to patients. Therefore, no immediate action needs to be taken regarding Mylan/Matrix product to protect public health. This conclusion applies generally and is not limited to Mylan prequalified products.

Should further investigation indicate any causes for concern, Mylan and WHO will contact relevant parties (regulatory authorities and procurement agencies for this product) and/or issue an additional information note.

**WHO recommendation to patients**

Any patient who has been prescribed any Mylan/Matrix product should continue his/her treatment. Treatment regimens dependent on Matrix products should not be interrupted indiscriminately.

**WHO recommendation to manufacturers**

Manufacturers of FPP should check whether they have purchased or being supplied with Magnesium Stearate VG EP manufactured by Ferro, and if so confirm the manufacturing location to ascertain if they are at risk of having used the contaminated material. If so, they should contact their relevant medicines regulatory authority to determine whether any follow up action is required.

All manufacturers should verify that that their excipient suppliers are applying an appropriate level of control over GMP risks such as cross contamination.

**Further information and contacts on this issue**

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