New Handheld instrument for screening for Lead in Toys and Consumer Goods

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In recent weeks and months many toys have been recalled from the market due to the presence of lead in the paint applied to the toy. The recalls are primarily being carried out by the major toy manufacturers; however, there is reason to believe that the problem exists throughout the toy industry.

In response to the concern regarding high levels of lead in toys and children's jewelry, Oxford Instruments is pleased to announce a special configuration of the X-MET3000TXR+ which provides a simple method of screening any toys or other products for lead content. The X MET3000TXR+ is a hand-held X-ray fluorescence (XRF) analyzer. The principle behind XRF analysis is that when a sample is excited by X-ray energy, it reflects (or fluoresces) energy. By measuring intensity and quantity of this reflected energy, the chemical composition of the sample can be determined.

Since the equipment is portable, it can be taken to any location – a store, a warehouse, an incoming port – to test the toys. In a very fast measurement, the instrument can determine the presence or absence of lead in the toy. In addition, the test for lead can also identify other possible hazardous materials in the toy including: arsenic, cadmium, mercury, chrome, nickel and other hazardous metals.

Given the liability of the toy seller to ensure that the toy is safe, XRF screening is a wise investment. Recent recalls have cost companies money and reputation. In addition, the accuracy of XRF screening can significantly reduce the false-positive results for the presence of lead that other techniques may give.

Lead exposure is especially critical in young children under three years of age. Exposure to excess lead at this age can lead to brain damage and retarded development. In 1998, the US Government instituted regulations which limit the amount of lead in toys and other consumer products which are expected to be used by infants to 0.06% (or 600 ppm). If the item contains a higher amount of lead, it is considered hazardous material and must be carefully regulated or withdrawn from the market.

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Oxford Instruments Industrial Analysis

OIIA offers a range of Analytical Instruments designed for demanding quality control applications. From materials analysis to thickness gauging, the Industrial Analysis products incorporate the latest in available technology, coupled with over 30 years of experience in designing, producing and supporting world class instruments.

Our X-MET handheld X-ray Fluorescence (XRF) analysers and ARC-MET mobiles Optical Emission (OES) analysers are specifically designed for positive material identification, alloy analysis and identification and X-METs for hazardous material analysis (RoHS).

Our Horizon PBi is a lightweight, hand-held, XRF analyser for detection of lead in paint. Only distributed and supported in France

Our Lab-X, Twin-X, ED2000 and MDX1000 XRF spectrometers span the price/performance range for routine chemical analysis. From Sulfur in petroleum products to the analysis of limestone, we can match exactly the correct spectrometer to your needs, as we have the broadest range available in the industry.

For thickness gauging applications we offer handheld magnetic and eddy current gauges to full function, high performance XR systems. Our recently introduced X-Strata960 provides world-class performance.

Oxford Instruments plc

Oxford Instruments designs, supplies and supports high-technology tools, processes and solutions with a focus on physical science, bioscience, environmental and industrial research and applications. It provides solutions needed to advance fundamental nanoscience research and its transfer into commercial nanotechnology applications. Innovation has been the driving force behind Oxford Instruments' growth and success for over 40 years, and its strategy is to effect the successful commercialisation of these ideas by bringing them to market in a timely and customer-focused fashion.

The first technology business to be spun out from Oxford University over forty years ago, Oxford Instruments is now a global company with over 1,300 staff worldwide and a listing on the London Stock Exchange (OXIG). Its objective is to be the leading provider of new generation tools and systems for the Physical Science and Bioscience sectors.

This involves the combination of core technologies in areas such as low temperature and high magnetic field environments, Nuclear Magnetic Resonance, X-ray electron and optical based metrology, and advanced growth, deposition and etching. Our products, expertise, and ideas address global issues such as energy, environment, terrorism and health and are part of the next generation of telecommunications, energy products, environmental measures, security devices, drug discovery and medical advances.

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