Australian Government
National Measurement Institute

Australian Resources Research Centre (ARRC)
26 Dick Perry Avenue
Kensington WA 6151

PO Box 1246
Bentley DC WA 6983

Phone: +61 8 9368 8400
Facsimile: +61 8 9368 8499

www.measurement.gov.au

ABN 74 599 608 295

Vizzy-Brite Australia
18 Bagley Road
Warwick WA 6024

Attn Mr Timothy J Smart

Dear Mr Smart

Re ANALYSIS OF PAINT SAMPLE W09/024959/T

I refer to a recent accredited report of analysis of a paint sample, which was issued by our laboratory (see separate NMI report # RN765720). You have asked for some interpretation of the analytical results in terms of the predicted performance of the paint in the general environment, which is provided below.

INTRODUCTION

A sample of dried paint was submitted to the NMI laboratory by Vizzy-Brite Australia for analysis to determine if its presence could result in any contamination of the environment. Following discussion with the customer, it was determined that the dried paint sample would be tested for both total and leachable heavy metals. The leachable metals were determined following leaching according to the protocol described in the Australia Standard Leaching Procedure (ASLP) in AS4439.3-1997. The ASLP is used to simulate the amount of metals that would be leached from a soil under normal environmental conditions.

RESULTS OF ANALYSIS

	Total metals in paint sample (mg/kg)	**Maximum concentration for classification as Class 1 (mg/kg)***	**ASLP leachable metals in paint sample (mg/L)**	**Leachable Concentration (ASLP) for classification as Class 1 (mg/L)***
Arsenic	<0.1	14	<0.05	<0.5
Cadmium	<0.1	0.4	<0.01	<0.1
Chromium	2.5	10 (hexavalent)	<0.01	<0.5 (hexavalent)
Copper	6.6	Approx 6,250	<0.01	Not applicable
lead	1.7	2	<0.05	<0.5
Mercury	<0.1	0.2	<0.01	<0.01
Selenium	<0.1	2	<0.05	<0.5
Zinc	530	Approx 6,250	1.7	Not applicable

* WA Government Department of Environment, Landfill Waste Classification and Waste Definitions 1996 (as amended).

DISCUSSION

There appears to be no regulation per se for the appropriate levels of heavy metals in dried paint in terms of its effects on the environment. The nearest regulation that could apply to dried paint is the WA Government Department of Environment, Landfill Waste Classification and Waste Definitions 1996 (as amended), which lists the maximum permitted concentrations of heavy metals in soils as they are classified into the following Landfill Classes:

LANDFILL CLASS	COMMON NAME
Class 1	Inert Landfill
Class II	Putrescible Landfill
Class III	Putrescible Landfill
Class IV	Secure Landfill
Class V	Intractable Landfill

The levels of total metals found in the paint sample would classify the paint as a Class 1 inert material according to the waste classification criteria described above. This type of material is expected to have no harmful effects on the environment and can include building and demolition waste, for example, bricks, concrete and associated small quantities of paper, plastics, glass, metal and timber.

The levels of metals found in the ASLP leachate are negligible and confirm the inert classification as described above.

CONCLUSION

Based on the tests conducted on the paint sample and according to the WA Government Department of Environment, Landfill Waste Classification and Waste Definitions 1996 (as amended), the dried paint is considered to be an inert material and its presence is unlikely to result in any significant contamination of the environment.

Stewart Jones
Laboratory Services Manager
National Measurement Institute

18 November, 2009