



Asbestos Identification in Soils & Bulk Solids

ALS Newcastle offers Asbestos ID Service

ALS is pleased to announce that the Newcastle Environmental laboratory now offers a NATA accredited service for Asbestos Identification in Soil & Bulk Solids by the Australian Standard method AS 4964 (2004).

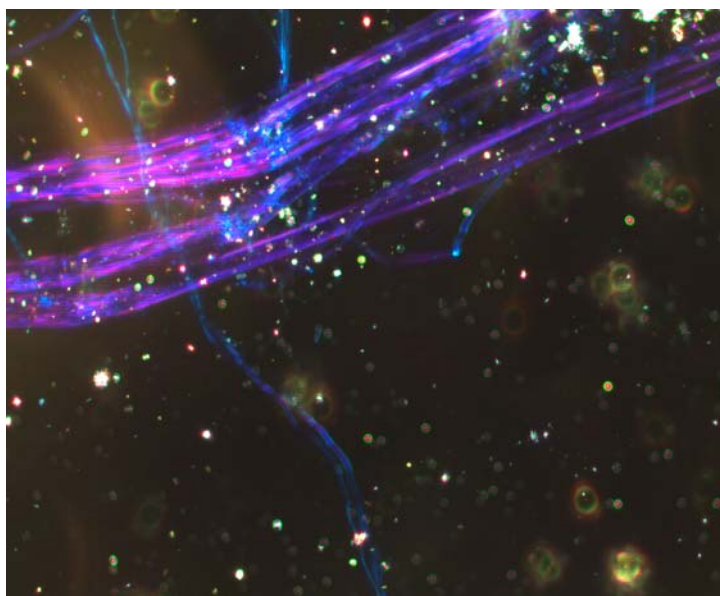
Asbestos is the generic term applied to the naturally occurring hydrated mineral silicate fibres belonging to the serpentine and amphibole groups of rock-forming minerals. Asbestos withstands heat, erosion and decay, and has fire and water resistant properties. As a result it was widely used in engineering, industrial and building materials up until the mid-1980s.

If asbestos is damaged or disturbed, it can release airborne fibres. Exposure to asbestos fibres may cause a number of diseases including asbestosis, mesothelioma, lung cancer or pleural plaque. Due to the significant human health risks associated with airborne asbestos fibres, there are considerable legal liabilities and requirements for anyone working with, transporting or disposing of asbestos containing materials. In some jurisdictions asbestos contamination must be assessed and noted on Title Deeds when buying or selling property. As a result, the identification of asbestos in soils and bulk solids is a common requirement for the assessment of potentially contaminated sites.

Analytical Method

Australian Regulatory Authorities, including various WorkCover and State EPAs and Environment Departments require the identification of asbestos to be carried out by a NATA accredited laboratory by the Australian Standard AS4964-2004, or an equivalent method. The Australian Standard method is based on Polarised Light Microscopy (PLM) with confirmation of identification by Dispersion Staining. The National Environment Protection Council (NEPC) is currently carrying out a review of the NEPM for Contaminated Sites and is expected to reference this Australian Standard method.

*Chrysotile at 100x magnification under polarised light
with Dispersion Staining*



*Right solutions....
....Right partner*

Certificates of Analysis

Asbestos identification results are reported with other analytical results through the standard ALS NATA endorsed test report. All of the data is accessible through WebTrieve™ and is available in a variety of export formats. The Certificate of Analysis includes a sample description, sample preparation details and if detected, the type of asbestos present.

Reporting Options

PLM is the only NATA endorsed risk assessment tool for asbestos available in Australia and allows for the definitive identification of Amosite, Crocidolite, and Chrysotile. Under NATA's Accreditation Requirements, the laboratory may also report the presence or absence of Synthetic Mineral Fibres and Organic Fibres. Although the analysis is qualitative the limit of reporting is generally deemed to be 0.1g/kg. There are currently 3 reporting options available through ALS and these are detailed in the table below.

Mixed Asbestos Insulation At 28x Magnification



ALS METHOD CODE	DESCRIPTION
EA200	Absence/Presence of Asbestos in Sediment/Soil
EA200B	Absence/Presence of Asbestos in Bulk Solids
EA200Q	Absence/Presence of Asbestos in Asbestos Containing Material - including Estimated Weight and Dimension

Sampling and Logistics

Samples do not need to be chilled for transit and may be submitted via the ALS Laboratory Group Network. The amount of material required for this test depends on the sample type however as a general rule a minimum of 60g should be submitted, except for floor tiles which require a minimum of 100 square centimetres. Samples need to be representative of the source material and submitted to the laboratory in a double-bagged sealed plastic zip lock bag.

For further details please contact ALS Newcastle on (02) 4968 9433, or your local ALS Office.

References

- Standards Australia (2002)
AS 4964 - Method for the Qualitative Identification of Asbestos in Bulk Samples, Standards Australia
- enHealth Council (2005)
Management of Asbestos in the Non-Occupational Environment. Australian Government, Department of Health & Aging and enHealth Council, Australia <http://enhealth.nphp.gov.au/council/pubs/pdf/guideasbestos.pdf>
- Health and Safety Executive (HSE) (2005)
Asbestos: The Analysts' Guide for Sampling, Analysis and Clearance Procedures – Health and Safety Executive, United Kingdom.
- NOHSC
www.safeworkaustralia.gov.au/swa/healthsafety/hazardoussubstances/standards+and+codes+of+practice/asbestos.htm
- Risk Information Website
www.epa.gov/ncea/iris/subst/0371.htm

For further information on specialist Services please visit the ALS website: www.alsglobal.com