Asbestos Safety Information

Information Sheet

What is Asbestos?

Asbestos is a naturally occurring fibrous crystalline mineral, found in rock formations. Three main types of asbestos have been mined in Australia, including crocidolite (blue asbestos), amosite (brown asbestos) and chrysotile (white asbestos).

After mining, the mineral was further processed by breaking down clumps of fibres into groups of loose fibres. It was mixed with other materials to produce a variety of products.

Asbestos cement was produced by mixing asbestos fibres with Portland cement and water. The asbestos fibre was added as reinforcement, to increase the strength of the product. Asbestos cement products typically contain 10-15 per cent asbestos fibre by weight.

How do you recognise asbestos products?

Generally, a person cannot determine whether a material contains asbestos simply by looking at it. Careful visual examination and the use of a microscope is the only way to verify the presence of asbestos.

If in doubt, treat suspect material as though it does contain asbestos just to be on the safe side.

In its raw form asbestos is well known to cause health effects in humans.

What are the health effects caused by exposure to asbestos cement products?

Generally, undisturbed asbestos cement products do not pose a health risk, as the fibres are bound together in a solid cement matrix. However, if the material is damaged or disturbed, fibres may be released into the air.

The use of power tools for cutting, drilling, grinding, sanding or sawing the material can release a significant number of fibres.

The use of high-pressure water blasters to clean the material prior to painting can also release large numbers of fibres so it is important to never perform these activities.

In most cases, the presence of asbestos cement building materials in a home (ie: a dividing fence) is no cause for alarm. If the materials are in good condition and are not disturbed, they do not present a health hazard. Disturbing the material (e.g. by removal) may create a health hazard where none previously existed.

Why follow safe work procedures?

Significant health risks may arise from the inhalation of airborne asbestos fibres and their passage into the lungs. When handling asbestos products small fibrous particles may become airborne and inhaled. A person must not purposefully break up asbestos sheets.

Asbestosis can be the result of inhalation of high concentrations of asbestos, a progressive scarring of the lung tissue. Lung cancer and mesothelioma are the two main forms of cancer that are associated with

inhalation of asbestos fibres measuring between 3 – 8 micrometres in length. These possible effects of exposure to asbestos fibres through poor handling and absence of personal protective clothing of employees are the reasons why the Health (Asbestos) Regulations 1992 and the National Occupational Health & Safety Commission's Asbestos: Code of Practice 1988 were produced.

Renovating buildings containing asbestos cement products

Special precautions must be taken when renovating buildings containing asbestos cement products, to prevent fibres entering the atmosphere. As far as practicable, asbestos cement material must not be broken, abraded or otherwise disturbed.

If it is necessary to cut holes in asbestos cement material, only non-powered hand tools may be used, or power tools that incorporate dust suppression or dust extraction equipment attachments that are specifically designed to collect asbestos fibres.

The material should be kept wet, or other practical measures taken to keep the creation of airborne fibres to a minimum.

Suitable personal protective equipment should be worn including:

- P2 or P3 respirator (depending on the work undertaken)
- Disposable coveralls
- Safety goggles
- Disposable gloves.

If significant cutting or abrasion of the material is required, the asbestos cement material should be removed, and replaced with non-asbestos materials. If in doubt, seek advice from a building consultant.

All work performed by contractors must comply with the requirements of Worksafe (Department of Commerce) and the *Health (Asbestos) Regulations 1992* (WA).

How to safely remove and dispose of asbestos cement products

Special precautions must be taken when removing asbestos cement products, this is why you should seek the services of an asbestos removal contractor and as a last resort choose to remove the material yourself. If you choose to remove the material yourself, you are required to comply with the *Health (Asbestos) Regulations 1992* (WA) by taking the following precautions:

- Remove all movable furniture and fittings from the room
- Turn off heating/air conditioning systems
- Isolate the area and prevent access to members of the family, visitors etc
- Wear suitable personal protective equipment
- Wear P2 or P3 respirator (dependant of the work undertaken)
- Wear disposable coveralls
- Wear safety goggles
- Wear disposable gloves
- Prior to removal gently spray the asbestos cement with water or a PVA solution, to minimise the creation of airborne dust - beware that an asbestos cement roof can be slippery when wet
- Remove the asbestos cement products with minimal breakage - do not use excess force so only use non-powered hand tools

- Stack the asbestos cement sheets on 0.2mm thick polythene (plastic) sheeting (to prevent releasing fibres, avoid sliding the sheets together, wrap plastic around the material and seal it into bundles)
- Small pieces of asbestos cement can be collected in heavy-duty polyethylene bags, approximately 0.2mm thick - bags should be filled to no more than 50 per cent capacity
- Industrial tape like gaffer tape should be used to seal bundles. (Thin tapes like Cello, masking or electrical tape are not acceptable due to lack of strength
- Label or mark the bundles with the words "CAUTION ASBESTOS" in lettering at least 50mm high
- Clean up any residue material using a vacuum cleaner fitted with a HEPA filter - **do not** use an ordinary household vacuum cleaner
- Dispose of asbestos material at an approved landfill site - a list can be obtained from the Department of Water and Environmental Regulation or the Department of Health. You must inform the operator of the site that the waste is or contains asbestos on arrival. See Millar Road Landfill and Recycling Facility Asbestos Disposal Information available at www.rockingham.wa.gov.au

Removing asbestos cement fences

When removing asbestos cement fence sheeting, it is important to ensure that all of the material is removed, including the below ground section. Dig a trench around the fence, making sure you do not dig into the fence and break up the material. Remove the entire sheet, wrap it in labelled polythene sheeting, and dispose of promptly.

Over 10 square metres must be removed by a licensed and trained individual or business. Removal of any amount of friable asbestos must be done by a licensed person or business. Friable asbestos is asbestos in the form of a powder, or which is soft and crumbles under hand pressure. Examples include asbestos pipe insulation and the paper like backing on asbestos backed vinyl sheet flooring. Non-friable asbestos containing material, such as asbestos cement sheet, can become friable in some circumstances (eg if involved in a severe fire). Please also see Safe Work Australia – Guide to Identifying and Handling Low Density Asbestos Fibre Board

How to maintain an asbestos cement roof

Asbestos cement roofs should be regularly maintained using the following procedures:

- Inspect asbestos cement roofs regularly for signs of deterioration and damage
- Clean gutters and drains annually by thoroughly wetting the waste material and collecting it in heavy-duty plastic bags for disposal at a landfill accepting asbestos waste
- Prune all trees and branches 600mm away from asbestos cement roofing
- Do not clean the roof unless absolutely necessary. If cleaning is necessary (eg: to remove dead moss and algae) a surface biocide can be applied, then removed using water and gentle brushing (with a soft bristled brush). During this procedure, the material must be kept wet at all times.
- **Caution**: An asbestos cement roof can be very slippery when wet.

Using all reasonable measures when dealing with asbestos

- You must take all reasonable measures to ensure asbestos fibres are not released into the air. Reasonable measures include the following:
- Using water or other practical measures to keep airborne material containing asbestos to a minimum
- Not using any tools other than non-powered hand tools or portable power tools that incorporate dust suppression or dust extraction attachments designed to collect asbestos fibres
- Using only vacuum cleaning equipment designed to collect asbestos fibres

- Not using a high pressure water jet, or compressed air, unless in a manner which adequately prevents asbestos fibres entering the atmosphere and which is approved in writing by the Executive Director, Public Health
- Ensuring, as far as is reasonably practicable, that material containing asbestos is not broken or abraded.

Further information

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