



ASBESTOS

What you should know

All forms of asbestos are banned in Australia!

What is asbestos?

Asbestos is the generic term for a number of fibrous silicate minerals. There are two major groups of asbestos – the **amphibole** group, which includes blue (crocidolite) and brown (amosite) asbestos and the **serpentine** group, which includes white asbestos (chrysotile). All forms of asbestos are classified as human carcinogens (cancer causing) and exposure can cause asbestosis, lung cancer and mesothelioma.

What is asbestos used for?

Serpentine group

Chrysotile is the only form of asbestos that has been used commercially from the serpentine group. Chrysotile was banned on 31 December 2003.

In the past it has been used in the manufacture of:

- asbestos cloth, tapes, ropes and gaskets for packing and in thermal and chemical insulation
- asbestos cement sheets and pipes for construction, casing for water and electrical/telecommunication services
- rubber, plastics, thermosetting resins, adhesives, paints, coatings, caulking compounds and sealants for thermal, electrical and insulation applications
- fire-rated doors, equipment and structural beams of buildings
- fillers and filters
- packing and friction material such as gaskets, brake and clutch linings.

Amphibole group

Amosite and crocidolite were used in many products until the early 1980s. The use of all types of asbestos in the amphibole group was banned in the mid 1980s. These products were mainly:

- asbestos cement sheets and pipes for construction, casing for water and electrical/telecommunication services (crocidolite asbestos was rarely used in cement sheets)
- thermal and chemical insulation eg. fire rated doors, limpet spray, lagging and gaskets.

What are the risks associated with asbestos?

Asbestos becomes a health risk when asbestos fibres are released into the air and inhaled. Exposure to asbestos fibres can cause asbestosis, lung cancer and mesothelioma. This does not automatically mean that your health is at risk if you find that your home, workplace or vehicle contains materials made from asbestos.

The risk to health increases as the number of fibres inhaled increases, that is, the health risk is related to the dose (the dose is related to the amount of airborne asbestos fibres inhaled and the length of exposure). The diseases associated with asbestos are characterised by long latency periods. It may take up to 40 years between initial exposure and the onset of the disease.

Health problems usually occur when people are unaware of the hazards of working with asbestos containing products. It is important when working with asbestos that there is minimal release of dust or small particles from the asbestos containing material. By using your commonsense and following safety guidelines, asbestos containing products should not be a problem.

Why was asbestos used so extensively if it is such a hazard?

For a long time the dangers of asbestos were not understood. Asbestos related diseases generally have a delay or lag period of about 20 to 40 years between first exposure and the onset of symptoms and detection of disease. The scale of the health risks associated with asbestos was only known after it had already been widely used and many people had already been exposed.

Asbestos fibres were widely used in the past because of their unique chemical and physical properties. Asbestos fibres give protection against fire, corrosion, cold, acids, alkalis, electricity, noise, energy loss, vibration, salt water, frost, dust and vermin. Asbestos also has excellent friction and wear resistance and has been extensively used in brake lining and clutch facings.

Nationwide ban on chrysotile asbestos

On 31 December 2003, the use of chrysotile asbestos was banned nationally. As the other types of asbestos were already banned, it means that all forms of asbestos are now prohibited in Australia.

What was the objective of the ban?

To reduce future death and illness from exposure to chrysotile fibres.

Specific outcomes to be achieved include:

- eliminating deaths and illnesses arising out of exposure to chrysotile
- improving protection of the environment
- unifying of differing State and Territory standards.

Are there any uses of chrysotile that are not banned?

The ban does not include:

- bona fide research or analysis
- removal or disposal (in accordance with South Australia's Approved Code of Practice) by a licensed operator where this is appropriate and as described in the Asbestos Regulations in the *Occupational Health, Safety and Welfare Regulations 1995*)
- where it is encountered during non-asbestos mining or quarrying
- display of an item in a museum or for historical display
- 'in situ' chrysotile products – meaning that all raw materials or products containing asbestos in good condition already in place before 31 December 2003 can stay in place until they need to be disturbed or replaced. When replaced, it must be with non-chrysotile alternatives and the chrysotile products must be removed and disposed of in accordance with South Australia's safe disposal requirements as described in the *Occupational Health, Safety and Welfare Regulations 1995*
- where there is a nationally agreed and time limited specified exception (see below).

A list of NOHSC exemptions agreed by all Australian jurisdictions is as follows:

Exemption 1: Compressed asbestos fibre gaskets for use with saturated steam, superheated steam or with substances, which are classified as dangerous goods, including corrosive or flammable and very toxic or toxic. Where compressed asbestos fibre gaskets are to be used with chlorine, the exemption applies for plants used in liquid chlorine service with design process conditions of -45 degrees Celsius and 1500 kPa pressure.

This exemption applies until 31 December 2004 and for use with chlorine until 31 December 2006.

Exemption 2: Any product consisting of a mixture of asbestos with a phenol formaldehyde resin or with a cresylic formaldehyde resin used in:

- vanes for rotary vacuum pumps
- vanes for rotary compressors

- split face seals of at least 150 millimetres in diameter used to prevent leakage of water from cooling water pumps in fossil fuel electricity generating stations.

This exemption applies until 31 December 2007.

Exemption 3: Diaphragms for use in electrolytic cells in existing electrolysis plants for chlor-alkali manufacture.

This exemption applies until 31 December 2006.

Exemption 4: For the Australian Defence Organisation (ADO) to use chrysotile parts and components, which the ADO considers to be mission-critical and where there is no known suitable non-chrysotile alternative. The Safety Rehabilitation and Compensation Commission will regulate this exemption in detail.

This exemption applies until 31 December 2007.

What is the exposure standard for chrysotile?

In August 2003 the Exposure Standard for Chrysotile was reduced nationally from 1 fibre/ml to 0.1 fibre/ml by the National Occupational Health and Safety Commission (NOHSC). This brought the Exposure Standard into line with the Standards for other forms of asbestos and has automatically taken effect in the *SA OHSW Regulations (part 4 Hazardous Substances)*.

What about the importation of chrysotile?

Nationally, the Australian Customs Service has implemented measures to ensure there is no importation into Australia of asbestos containing material. Customs have introduced changes to their regulations that prohibit the importation of asbestos and asbestos-containing products, except for the nationally agreed exemptions. Importers who wish to import asbestos exempt products need to notify SafeWork SA and complete a Customs Confirmation form.

Can materials containing chrysotile or other forms of asbestos be exported?

No. The ban includes exporting as well as importing.

Do I need to remove asbestos containing materials that are fixed or installed in my home, workplace or vehicle?

No. Asbestos containing materials or products that are fixed or installed and are in good condition may be left in place until they are disturbed or damaged. At this point the asbestos materials must be removed and any removal must strictly comply with the Asbestos Regulations and the relevant Approved Code of Practice.

Are there any exemptions for vintage cars and motorcycles?

No. You cannot replace any parts in a vehicle with asbestos containing components.

How do I transport and dispose of waste asbestos, including chrysotile products?

Advice on the transport and disposal of asbestos waste must be obtained from the Environmental Protection Authority (EPA) on (08) 8204 2004.

Are safe substitutes for chrysotile available?

Safer substitutes have been developed for almost all uses of chrysotile. There may however be some risk associated with some substitutes and reasonable precautions should be taken to avoid exposure. For example, non-asbestos substitutes have been developed for brake and clutch linings. Mechanics and repairers should avoid exposure to dust from these substitutes.

What if I cannot find a safe replacement?

All States and Territories in Australia have agreed to a strictly controlled list of four time limited exemptions from the ban. You cannot use or reuse an asbestos containing product, otherwise you will be in breach of the Asbestos Regulations in the *Occupational Health, Safety and Welfare Regulations 1995*.

Where can I find out more information about non-asbestos alternative products?

Your existing supplier is the best starting point to find out about non-asbestos alternative products. Or you can find out from your industry association.

Can materials containing chrysotile and other forms of asbestos be re-used?

No. Chrysotile products must be removed and disposed of when they come up for replacement. Dismantling the existing product and reusing it is also prohibited.

Can transportable houses and building structures containing asbestos products be transported?

SafeWork SA has a strict policy relating to the transportation of asbestos containing transportable buildings. If you are considering moving such a building please contact SafeWork SA for more information.

Need more information?

The following resources provide more information on asbestos:

- The *Occupational Health, Safety and Welfare Regulations, 1995* – Division 4.2
- *Approved Code of Practice for the Safe Removal of Asbestos*
- SafeWork SA's Asbestos and the Home Renovator booklet
- SafeWork SA's Asbestos and the Home Mechanic booklet
- SafeWork SA's website: www.safework.sa.gov.au

Useful telephone numbers

SafeWork SA Mineral Fibres Unit

Telephone: (08) 8303 0405

Dr Joe Crea

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Telephone: (08) 8303 0207

E-mail: crea.joe@saugov.sa.gov.au

Asbestos Victims Association (SA) INC

Telephone: (08) 8331 0254

Environmental Protection Authority (EPA)

Telephone: (08) 8204 2004