



# Chrysotile Asbestos

## *F a c t   S h e e t*

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*Canadian asbestos (chrysotile) can be used without undue risk (i.e. safely) in building materials, friction products, pipes and other industrial applications, provided it is manufactured and handled with care. Experts in Canada and in other countries, as well as the International Labour Organization, and the Organization for Economic Co-operation and Development concluded that current knowledge and modern technology can successfully control the potential for health and environmental harm posed by chrysotile asbestos.*

### Problems of the Past

Asbestos has long been used in construction and manufacturing, because it is incombustible, durable, versatile and resistant to chemicals. In the early 20th century, however, there was growing evidence that high concentrations of airborne asbestos fibres could cause serious health problems, including scarred lungs, asbestosis and cancer. Unfortunately, public health officials were slow to see the link, in part because illnesses could take 45 years to develop. By the mid-1900s, the association became evident, spurring researchers and policy-makers to action.

Asbestos has been the focus of extensive scientific and medical scrutiny. Among other things, scientists have discovered that not all asbestos is alike. Fibre length and type have an impact on human health, as does a person's exposure (dose and duration) to the substance. As a result of those findings, a potent class of the mineral, called amphiboles, is no longer used. Similarly, asbestos is no longer used in sprayed insulation and other products from which it can readily escape into the air.

On the other hand, chrysotile asbestos, the most common form of asbestos used in the world and the only kind mined in Canada, can be used safely in products such as building materials, brake linings, and water and sewer pipes. In those applications, the fibres are encased in a matrix such as cement or resin, and cannot disperse into the environment.

### *Did you know...*

- Asbestos is a fibrous mineral that is found naturally in nearly two-thirds of the Earth's crust.
- Because of its wide prevalence, we inhale small amounts of asbestos in every breath.
- More than 16 per cent of the world's asbestos is produced in Canada.

## Handle with Care

Even so, asbestos must be handled with caution at all times — from mining to disposal. In 1984, following one of the world's most authoritative analyses, Ontario's *Royal Commission on Matters of Health and Safety Arising From the Use of Asbestos* recommended a "safe-use" approach to asbestos. This involves strict controls over mining, milling, manufacturing, transportation, handling and disposal activities.

This approach was adopted by a federal-provincial working group on asbestos, which developed a "Current Approach to the Regulation of Asbestos in Canada." It was further expanded in 1996 when the Government of Canada adopted the safe-use principle in its Minerals and Metals Policy. As a global leader in the sustainable development of natural resources, Canada has a responsibility to promote the safe use of all minerals and metals, including chrysotile asbestos.

In practical terms, this means that if a resource can be managed responsibly and its potential risks contained, then minerals and metals can be produced, used, re-used, recycled and returned to the environment in a safe and sustainable way. Adverse effects associated with the use of hazardous materials must be mitigated by strict controls on exposure. However, where exposure cannot be controlled, such products must be removed from the marketplace. This happened in the early 1970s, when Canadian insulation manufacturers voluntarily stopped producing friable asbestos-based insulation, which was associated with much of the illness linked to the mineral.

## Safe-use Principle

The provinces have passed regulations on the safe handling of asbestos in the construction industry. All products containing asbestos must now be labelled and workers are obliged to follow precautions to reduce asbestos dust exposure during renovations and demolitions. Canadian industries have also invested in processes and technologies to protect workers, consumers and the public. For example, plants using chrysotile asbestos now have enclosed processing and conveying equipment to control the emission of fibres, as well as state-of-the-art air quality monitoring and ventilation systems.

Backed by the scientific knowledge and technical innovations that permit the safe use of chrysotile asbestos, Canada is now challenging France's ban on the manufacture, import and sale of chrysotile asbestos products. Canada maintains that this prohibition is inconsistent with the rules of the World Trade Organization's agreements. While France is not the only nation to ban asbestos, it is the first to do so since the implementation of the new WTO dispute settlement procedures.

Canada's interest in the case extends well beyond chrysotile asbestos. As one of the world's foremost producers of minerals and metals, such as aluminum, copper, nickel and zinc, Canada has an interest in ensuring the safe and sustainable use of all natural resources.

## *Searching for Substitutes*

While experts in Canada and around the world believe chrysotile asbestos can be used safely with appropriate precautions, users are hoping to find better alternatives.

However, substitutes that are technically equivalent to asbestos also tend to have similar physical properties. That means they're also fibrous, and may pose the same threats to health.

In fact, because of the long latency between exposure and the development of health problems, there is no scientific proof that new alternatives are any safer.