

WHY
so much emotion?



Asbestos THE Saga

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THE Asbestos Saga

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Throughout the whole world, very few natural or synthetic products cause as much debate as the use of asbestos. The major characteristic of this debate is the strength used by the supporters and the detractors to face each other. For many years now we alas witness a war, sometimes based on scientific or technical facts but, most of the time, this crusade is attributable to media tactics to support its position which hides commercial interests. Too often, without scientific or technical arguments, the asbestos detractors simply play with people' emotions.

Since the asbestos debate touches workers and population's health and security, it is then not unusual to hear about drastic rulings. As an example, let's think about the actual ruling concerning major stakes of the hour.

Dosage and latency, the forgotten

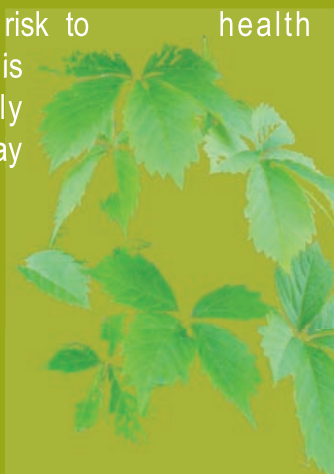
First, facts are irrefutable: asbestos exploitation – without distinguishing the fibres (chrysotile and amphiboles) – took its rise in the middle of the 20th century. During this era, protection measures and appropriate work practices for employees, ensuring them a healthy working environment, were practically nonexistent. The employees extracting and transforming the fibre, installing and maintaining products containing asbestos were then exposed, for many years, to high dust concentration and this, without appropriate respiratory protection.

Inhaled in great quantity over long period of time, asbestos fibres cumulate in the lungs and exceed the natural capacity of the body to eliminate them. Then follows a gradual diminution of the correct action of the lungs. This phenomenon is called asbestosis. It might eventually provoke lung cancer or mesothelioma – another kind of cancer generally associated with asbestos. However, this process extends over many years

(sometimes up to 40 years): this is called the latency period of the disease.

This is, in particular, because of the latency period that it is still possible today to diagnose new cases of disease and this, is in spite of all the improvements concerning the exposure of workers to fibres in the workplace. Alarming reports of the rise of diseases linked to asbestos have triggered intense controversy in Europe, especially in northern countries which, before the 1980's, were heavy users of friable asbestos insulation.

In a nutshell, here is the genesis of the polemic concerning the usage of all kinds of asbestos fibres, including the one that is not an excess of risk to health when it is responsibly used, say chrysotile.



A little bit of science

Recent scientific studies have brought to light many nuances and, consequently, the understanding of the mechanism that provoke respiratory diseases after the inhalation of natural or synthetic fibres

These data, then again fundamental, are very often ignored and not included in the debate created by the asbestos detractors.

Today, if one says that one fiber kills, this person is only confirming his great ignorance of recent scientific studies... or has other motivations to say so.

Two fundamental facts... but so often ignored...

The word asbestos is a commercial term to indicate any fibrous mineral with a fibrous form.

There are two families of asbestos: chrysotile (white asbestos) and the amphiboles.

Except for sharing the same commercial term – asbestos - these two groups have completely different chemical composition, therefore, different effects on the human body.

There is an overwhelming number of published data showing that the mortality experience of workers handling amphiboles is much more severe than that of workers exposed to chrysotile only.

Moreover, studies confirm that very few cases of mesothelioma have been reliably attributed to chrysotile – despite past massive and prolonged exposures – but that they are rather linked to exposure to amphibole fibres.

There is more scientific evidence showing that asbestos induced-lung cancer, like asbestosis, is a threshold phenomenon. Low exposures to pure chrysotile do not present a detectable risk to health. Since total dose over time decides the likelihood of disease occurrence and progression, studies suggest that the risk of an adverse outcome may be low if even any high exposures experienced were of short duration.

Arguments presented by anti-asbestos activists : What are they defending?

Their claims...

The dangers of asbestos are widely known and its effects on health have been documented since the beginning of the 20th century.

Studies show that:

- a) Asbestos, amphiboles as well as chrysotile, is carcinogen for human beings and there is no known exposure threshold;
- b) Chrysotile is associated with asbestosis, lung cancer and mesothelioma, based on the level of exposure;
- c) The risk of developing lung cancer or mesothelioma applies to users of products containing asbestos and to the population exposed to it.

... but reality is

The decision whether to regulate or to ban a product must be based on scientific reality, not on perceptions nor business interests. Some 100 other products and industrial processes are recognized as carcinogens to humans by the World Health Organization, but they are not banned, they are carefully used.

The effects of various asbestos fibres on health are well known and documented. There is scientific consensus on the fact that fibres in the amphiboles group are from 100 to 500 times more harmful to health than chrysotile, particularly for mesothelioma.

The confusion purposely maintained by opponents to safe chrysotile use is due to confusing two families of fibres, without distinction, despite the fact that the type, the geological source, the use and effects on health are radically different.

Concerning the very existence of a threshold, while there is no consensus about the level at which it is established, the scientific community recognizes that this threshold does exist. Cohorts representing tens of thousands of workers exposed only to chrysotile at levels of concentration lower than 2 fibres/cm³ (twice today's permissible level in the workplace) have been studied and clearly do not show an inordinate increase in disease in relation to the general population. Industrial diseases related to the use of asbestos are therefore the result of excessive and prolonged exposure to chrysotile or exposure to amphiboles.

Due to the latency period, cases of cancer or asbestosis observed today result from past working conditions that no longer apply.

Their claims...

The International Agency for Research on Cancer (IARC - WHO) has recognized asbestos as a type 1 carcinogen.

Its use must therefore be prohibited.

All types of asbestos are dangerous—this is why the distinction between chrysotile and amphiboles is purely semantic.

... but reality is

Because all types of asbestos were used incorrectly in the past, we know that chrysotile and amphiboles have been classified as category 1 carcinogens (proven carcinogenic agents), such as cadmium, chromium, nickel compounds, silica, the sun's rays, vinyl chloride, alcoholic beverages, salted fish, tobacco smoke, saw dust, the manufacture and repair of shoes, the manufacture of furniture and cabinets, iron and steel foundries and the rubber industry. The World Health Organization (WHO) classification identifies a substance's hazard, not the risk.

Consequently, a substance classified in group 1 does not mean that we should prohibit its use, only that it should be properly controlled.

First of all, the fact that "chrysotile" asbestos and fibres in the "amphiboles" group are regulated differently is nothing new. This two-pronged approach exists in Convention 162 on the safe use of asbestos issued by the International Labour Organisation in 1986.

Since "asbestos" is a trade name rather than a technical term, it is appropriate that the regulation takes into account the main differences between the types of fibres.

Furthermore, there are many studies and an international consensus that shows that chrysotile fibre (white asbestos) is definitely less dangerous. Two significant scientific events recently confirmed this fact:

- (1) A group of scientists mandated by the Environmental Protection Agency (EPA) unanimously agreed that available studies on epidemiology indicate that the carcinogenic potential of amphibole fibres was one hundred times (100 x) higher than that for chrysotile fibres;
- (2) An important study on the biological persistence of chrysotile in the lung has shown, taking into account the scientific literature to date, that the report on this study provides solid new data that clearly confirm the difference, from an epidemiological point of view, between chrysotile and amphiboles.

This fundamental difference is also recognized by the group of experts brought together by the World Health Organization, who, as early as 1989, recommended, based on scientific data, that chrysotile asbestos should be regulated to 1 fibre per cubic centimetre, while amphiboles should be prohibited.

Their claims...

Because of the latency period, we do not if the controlled use of chrysotile approach actually reduces the number of diseases.

Preventive measures are not sufficient to protect the health of workers.

Workers are often not trained to apply these measures or to implement safe methods.

In the 1970s, the NIOSH (United States) claimed that only a ban on asbestos could ensure complete protection from the carcinogenic effects of this product.

... but reality is

A law adopted by governments takes into account the scientific studies stipulating that for the general population, **the health hazards from high-density products with chrysotile content** (asbestos cement, brakes, plastics, treated fabrics) **are undetectable.**

As for workers, **the law requires users of chrysotile to implement controls** that allow its use while protecting the health and bodily integrity of workers.

By introducing a prohibition on amphiboles, the authorities caused a significant reduction in future cases of mesothelioma, which is imperceptible until after the latency period for those who have been exposed.

Prevention methods were suggested in the late 1970s and integrated into the Code of Practice on asbestos by the International Labor Organization (ILO) in 1984. They provided proof of their applicability and effectiveness.

All construction materials contain elements that are likely to be harmful to the health of workers if used incorrectly. **Workers must make sure they are using the appropriate equipment and recommended work methods, regardless of the materials they use.** This is true for chrysotile, as well as for many other substances that are sometimes more harmful.

The position of the National Institute for Occupational Safety and Health (NIOSH) in the United States has evolved somewhat since that early 1970s when the effects of various types of asbestos on health were not as well documented. During public hearings by the U.S. Congress in July 2001, people of the **Occupational Safety and Health Administration (OSHA) and NIOSH expressed their concern to ban chrysotile** asbestos and stated that the current legislation was the most appropriate to protect workers.

The ILO's Code of Practice calls for **continuing training of workers** and the latest recommendations from this organization, particularly since the adoption of the Code of Practice on the Use of Fibreglass, call for extensive training of workers in all companies.

Their claims...

Safe use is a utopian view for the following reasons:

- a) Anyone can purchase asbestos, including individuals who are not aware of safe working methods;
- b) The general population is exposed to a hazard due to products that contain asbestos;
- c) Applying control measures is impossible.

We must follow the example of the United States and the European Union which have prohibited asbestos.

European scientists have shown that, based on the circumstances, certain exposure levels are sufficiently high to present a risk of developing a disease associated with asbestos.

... but reality is

Chrysotile has not been sold to individuals by producers for a long time. Shipments are only made to responsible companies that have implemented the safe use approach set out in the ILO's Code of Practice. With regard to finished products, it has been demonstrated many times that they do not present an unacceptable level of risks to the general population.

Products manufactured in the last 20 years or so, encapsulate the fibres in solid materials, such as cement or resin.

The conditions described by supporters of a ban, such as Ban Asbestos, have not existed for many years with respect to chrysotile. The conditions they describe as health hazards do however apply to substitute fibres and to many other dangerous products that are unregulated. This is an opinion based on impressions and a reality that no longer exists.

Approximately 60 countries have adopted the principle of controlled use of chrysotile, including U.S.A.

Chrysotile is easy to control, given the limited number of sources of supply, and it can be used safely. Why would this be easier to accomplish with potentially harmful substitute fibres, when they have never been shown to be safer or less harmful than chrysotile and given that they are not always subject to regulation to protect the health of workers?

The European ban was applauded; health issue was not the only motivation. The "established circumstances" to which groups opposing asbestos refer existed in the 1970s. These circumstances resulted in many cases of industrial diseases that are being diagnosed today and that can be attributed to this material. At the time, workers could have been exposed to average concentrations much higher than 20 fibres/cm³.

Today, those who handle chrysotile work in an environment where the measured concentration is less than 1 fibre/cm³. At this level, the health hazard is undetectable.

Their claims...

The entire world is leaning towards a ban. We must follow this trend.

International experts support the ban. As proof, INSERM (France) claims that chrysotile cannot be dissociated as a cause of pleural mesothelioma.

The World Trade Organization (WTO) claimed that no country could claim to have implemented responsible management of the risk of using a dangerous substance without favouring its replacement.

Asbestos is primarily used in countries that have no regulations about its use and it is handled by untrained workers who do not have access to medical examinations.



...but reality is

Those who oppose the use of chrysotile have been very short-sighted in selecting quotations that match their views and objectives, but that do not represent the opinions of experts or international organizations.

The collective expertise of the Institut national de santé et de recherche médicale (INSERM, France) was criticized by peers of holding a political position rather than a scientific position.

As for the WTO's report, panellists were very careful to clarify that the issue to be debated before the panel was a business issue and that no health determination was made, the topic of health being beyond their jurisdiction.

Not less than 29 countries have ratified the ILO Convention 162 concerning safety in the use of chrysotile and more than 50 countries have incorporated its regulations, based on Recommendation 172, into their national laws or regulations.

Since 1986, the Chrysotile Institute, in collaboration with the ILO, has organized seminars and training workshops in many countries to ensure that users of chrysotile fibre have the necessary expertise and equipment to handle it safely.



Their claim...

It is possible to replace asbestos.

...but reality is

Substituting chrysotile by other industrial fibres is technically possible. Since several European countries have demanded imports of products that are free of chrysotile, manufacturers have developed production processes that use one or more alternative products.

First of all, finished products manufactured without chrysotile are more expensive and generally of lower quality than those containing chrysotile and many of them have not been scientifically recognized as less hazardous to health. If the European market can allow itself the luxury of using more expensive, less durable and uncontrolled products, it should be a matter of concern.

But why impose this on other countries?

Several countries like Chile, England, Italy and France, chrysotile free products have been sold using smear campaigns against chrysotile resulting in its prohibition, thereby opening up the market to new products for which many technical problems are surfacing as their use becomes more widespread.

Secondly, the fibres usually used to replace chrysotile, such as cellulose, aramid fibres and ceramic fibre, are more persistent in lung tissue and therefore potentially more hazardous to health.

By prohibiting the use of chrysotile under the pretext of protecting workers, there is a chance of creating the reverse effect by promoting the development of unregulated fibres that are possibly more hazardous to the health of workers.

Their claims...

Countries are responsible for taking all necessary measures to protect the health of workers and the population.

The prohibition of asbestos is one of these imperative measures.

...but reality is

By adopting a law that supports controlled use of chrysotile, the regulatory authorities in the various countries demonstrate their concern for protecting the health and safety of workers, while ensuring that products are available, accessible and affordable to consumers.

Obviously it will soon be necessary to extend the measures adopted for chrysotile to all respirable industrial fibres whose risks (biological persistence) are greater than or equal to chrysotile.

These are true concerns about protecting the health of workers and the population.



Remember

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The most beautiful science is to know how to behave.
Old French Proverb



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