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EUROPEAN PARLIAMENT

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11 January 1982

DOCUMENT 1-903/81

REPORT

drawn up on behalf of the Committee on the Environment,  
Public Health and Consumer Protection

on the proposal from the Commission of the European  
Communities to the Council (Doc. 1-47/80) for a  
directive amending for the fifth time Directive  
76/769/EEC on the approximation of the laws, regulations  
and administrative provisions of the Member States  
relating to restrictions on the marketing and use of  
certain dangerous substances and preparations

Rapporteur: Mrs U. SCHLEICHER



By letter of 21 March 1980 the Council of the European Communities requested the European Parliament to deliver an opinion on the proposal from the Commission of the European Communities to the Council for a directive amending for the fifth time Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations.

By letter of 25 March 1980 the President of the European Parliament referred this proposal to the Committee on the Environment, Public Health and Consumer Protection which appointed Mrs U. SCHLEICHER rapporteur on 30 May 1981.

The committee considered the proposal at its meetings of 26 September 1980, 19 March 1981, 19 and 26 October 1981, and at its meeting of 3 December 1981 adopted the motion for a resolution by 11 votes to 3 with 8 abstentions.

Present: Mr Johnson, acting chairman; Mr Alber, vice-chairman, Mrs Weber, vice-chairman; Mrs Schleicher, rapporteur; Mr Adam (deputizing for Mr Horgan), Mr Bombard, Mr Del Duca (deputizing for Mrs Lenz-Cornette), Mrs Ewing (deputizing for Mr Remilly), Mr Forth (deputizing for Mr Sherlock), Mr Ghergo, Miss Hooper, Mrs Krouwel-Vlam, Mr Marck (deputizing for Mrs Maij-Weggen), Mr Mertens, Mr Muntingh, Mr Provan (deputizing for Sir Peter Vanneck), Mrs Pruvot, Mr Rogers (deputizing for Mr Lyng), Mrs Scrivener, Mrs Seibel-Emmerling, Mrs Spaak and Mr Verroken.

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The Committee on the Environment, Public Health and Consumer Protection hereby submits to the European Parliament the following amendments and motion for a resolution, together with explanatory statement:

Amendments of the Committee on the Environment, Public Health and Consumer Protection

Text proposed by the Commission of the European Communities<sup>1</sup>

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AMENDMENT No. 1

tabled by the Committee on the Environment, Public Health and Consumer Protection

Report : SCHLEICHER - Doc. 1-903/81  
DANGEROUS SUBSTANCES

Proposal for a directive - Doc. 1-47/80

Amend ARTICLE 1, paragraph 5.1. to read:

Article 1

The following point is hereby added to the Annex to Directive 76/769/EEC:

5. Asbestos fibres

5.1. Crocidolite, CAS No. 12001-28-4 (blue asbestos)

The placing on the market and the use of these fibres or of products containing them is prohibited.

(rest deleted)

Article 1

The following point is hereby added to the Annex to Directive 76/769/EEC:

5. Asbestos fibres

5.1. Crocidolite, CAS No. 12001-28-4 (blue asbestos)

The placing on the market and the use of these fibres or of products containing them is prohibited.

(However, their placing on the market and use for the following purposes shall be authorized:

- (a) the manufacture of asbestos cement pipes,
- (b) the manufacture of acid-resisting seals, gaskets and gland packings,

(provided that the harmful release of fibres is prevented.

<sup>1</sup> OJ No. C 78, 28.3.1980, p. 10

AMENDMENT No. 2

tabled by the Committee on the Environment, Public Health and Consumer Protection

Report : SCHLEICHER - Doc. 1-903/81  
DANGEROUS SUBSTANCES

Proposal for a directive - Doc. 1-47/80

Amend ARTICLE 1, paragraph 5.2. to read:

5.2. Other asbestos fibres:

Chrysotile, CAS No. 12001-29-5  
(white asbestos)  
Amosite, CAS No. 12172-73-5  
Anthophyllite, CAS No. 17068-78-9  
Actinolite, CAS No. 13768-00-8  
Tremolite, CAS No. 14567-73-8

5.2. Other asbestos fibres:

Chrysotile, CAS No. 12001-29-5  
(white asbestos)  
Amosite, CAS No. 12172-73-5  
Anthophyllite, CAS No. 17068-78-9  
Actinolite, CAS No. 13768-00-8  
Tremolite, CAS No. 14567-73-8

The placing on the market, importation into the Community and the use of these fibres or of products containing them are prohibited in respect of:

- (a) thermal and acoustic insulation products and fire-proof materials, other than individual and special industrial protective articles
- (b) filters for liquids, other than for pyrogenic separation
- (c) paints
- (d) mortars and fillers
- (e) plastic coatings
- (f) domestic appliances
- (g) roadway surfacing

In all cases (a) to (g):

unless the harmful release of fibres is prevented. A harmful release of fibres occurs where, in the course of the normal use of these fibres or products containing them the release of respirable asbestos fibres is in excess of 1 fibre/ml to be measured in accordance with test procedures yet to be defined by the Commission;

- (h) toys
- (i) decorative materials
- (j) substances applied by spraying
- (k) fillers and powders for use by the public

The placing on the market and the use of these fibres or of products containing them is authorized. However, their placing on the market and use for the following purposes shall be prohibited:

- (a) thermal and acoustic insulation
- (b) the filtering of air
- (c) roadway surfacing

unless the harmful release of fibres is prevented.

AMENDMENT No. 3

tabled by the Committee on the Environment, Public Health and Consumer Protection

Report : SCHLEICHER - Doc. 1-903/81  
DANGEROUS SUBSTANCES

Proposal for a directive - Doc. 1-47/80

Amend ARTICLE 1, paragraph 5.3. to read:

- 5.3. Without prejudice to point 5.2., 5.3. The placing on the market and the use of asbestos containing products is prohibited when these are used solely for decorative purposes.
- the placing on the market and importation into the Community of products containing asbestos fibres shall be authorized only if the products bear a label indicating the dangers associated with them.

AMENDMENT No. 4

tabled by the Committee on the Environment, Public Health and Consumer Protection

Report : SCHLEICHER - Doc. 1-903/81

DANGEROUS SUBSTANCES

Proposal for a directive - Doc. 1-47/80

Add a new paragraph 5.4. to ARTICLE 1 to read:

5.4. A list of substitutes shall be drawn up; where safe substitutes are available, they must be used; research on new substitutes shall be stepped up.

NEW



A

MOTION FOR A  
RESOLUTION

embodying the opinion of the European Parliament on the proposal from the Commission of the European Communities to the Council for a directive amending for the fifth time Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations

The European Parliament,

- having regard to the proposal from the Commission to the Council (COM(79) 419 final)<sup>1</sup>,
  - having been consulted by the Council (Doc. 1-47/80),
  - having regard to its resolutions of 16.12.77 on the health hazards of asbestos<sup>2</sup> and of 11.5.1979 on environmental carcinogens<sup>3</sup>, in which attention is drawn to the health hazards involved in the processing of asbestos,
  - having regard to the reports by the Commission of the European Communities, the Scientific Committee for Foodstuffs and the Economic and Social Committee, and the research reports published in Europe and the United States which demonstrate the hazards of fine asbestos dust of specific dimensions, but, in view of the complex technical factors involved, do not yet enable any definite conclusions to be drawn,
  - having regard to the report by the Committee on the Environment, Public Health and Consumer Protection (Doc. 1-903/81),
1. Supports, as a precautionary measure, the Commission's proposed subdivision of asbestos fibres according to their presumed degree of danger (blue and white asbestos) as the basis for the proposal for a directive;
  2. Considers that, in the light of current evidence showing blue asbestos to be the most dangerous type of asbestos and believing that in respect of all its current applications safer substitutes do exist, a complete ban on the use of crocidolite is both justified and desirable and calls on the Commission to amend its proposal accordingly;

<sup>1</sup> OJ No. C 78, 28.3.1980, p. 10

<sup>2</sup> OJ No. C 6, 9.1.1978, p. 138 et seq. (Own-initiative report by Mr EVANS, Doc. 344/77)

<sup>3</sup> OJ No. C 140, 5.6.1979, p. 175 et seq. (Own-initiative report by Mr JAHN, Doc. 99/79)

3. Urges the Commission to revise the list of prohibited uses for the types of asbestos (excluding crocidolite) which are generally authorized, on the basis of the amendment to Article 1, paragraph 5.2. and to add to this list a definition of 'harmful release';
4. Is of the opinion that this directive must also provide for the marking of asbestos products that may give rise to health hazards;
5. Considers that steps should be taken at a Community level to promote the harmonization of the test and measuring procedures for detecting the harmful release of fibres and to introduce appropriate monitoring methods; takes the view, moreover, that when these test and measuring procedures are available, the list of prohibited uses should be revised to take into account the aspect of 'harmful release';
6. Believes that for certain uses and special products, some of which play life-saving roles, there is still no substitute for asbestos, and that a general ban on asbestos would therefore not be justified at present;
7. Reiterates its request to the Commission to promote research into substitutes for asbestos with the specific objective of ensuring that these substitute fibres do not themselves give rise to health hazards similar to or different from those caused by asbestos;
8. Requests the Commission to take steps to ensure that suitable and safe substitutes for asbestos, where they are available, are actually used in all Member States;
9. Believes also that the Community should initiate and support scientific research into special processes to eliminate the carcinogenic effect of asbestos fibres of specific dimensions;
10. Emphasizes once again the need to eliminate as far as possible the risk of cancer; recommends therefore that the Community should initiate and support scientific research into ways of realistically assessing the degree of risk represented by various carcinogens, to serve as a basis for decisions on the necessary preventive and safety measures;
11. Approves the proposal for a directive, subject to the amendments proposed by it, and requests the Commission to embody these amendments in its proposal, pursuant to the second paragraph of Article 149 of the EEC Treaty.

B

EXPLANATORY STATEMENT

I. INTRODUCTION - GENERAL REMARKS:

1. Asbestos has been used on an increasing scale over the last 60 years. There are now some 3,000 known applications for asbestos. Asbestos dust is produced both in the mining of asbestos and in the manufacture and processing of products containing asbestos. Unlike asbestos in its mineral form, this fine asbestos dust is harmful to health and can, depending on the concentration and duration of exposure, cause a variety of illnesses.

2. The following illnesses have been attributed to fine asbestos dust:

- (a) Asbestosis, a scarring of the lung tissue caused by deposits of asbestos dust in the lungs,
- (b) Lung cancer in conjunction with asbestosis, smokers being exposed to a much higher risk than non-smokers,
- (c) Mesothelioma, a rare form of cancer occurring in the pleura or the peritoneum,
- (d) In individual cases of cervical cancer and cancer of the stomach or colon, links have been suspected with heavy and prolonged exposure to fine asbestos dust.

3. Scientists now take the view that it is the fibrous character of asbestos which makes it pathogenic. The term 'fine fibrous dust' is used to describe inhalable particles of up to 200  $\mu\text{m}$  and with a maximum diameter of 3 $\mu\text{m}$ . Fibres found in lungs are, however, usually less than 100  $\mu\text{m}$  in length and much thinner than 3  $\mu\text{m}$ . Many are, in fact, so fine that they can only be detected by the use of an electron microscope. Asbestos dust fibres under 5  $\mu\text{m}$  in length and less than 3 $\mu\text{m}$  in diameter, with a length to diameter ratio of at least 3:1, are regarded as carcinogenic. Scientific opinion at present considers there to be a risk of cancer from any other fine mineral dusts consisting of fibres more than 5  $\mu\text{m}$  in length and less than 1  $\mu\text{m}$  in diameter.

4. The dose-frequency relationship between fine asbestos dust intake and tumour formation is now recognized. While asbestosis only occurs after very prolonged exposure to fine asbestos dust (20 to 40 years), it seems that cancer can occur not only after long term exposure, but also, especially in the case of mesothelioma, a long time after a relatively short (about one month) but concentrated exposure to fine asbestos dust.

5. The public hearing held by the Committee on the Environment in 1978 and the own-initiative report by that committee on environmental carcinogens (Jahn report, Doc. 99/79) have shown the difficulty of making categorical

statements on this subject. Both in the USA and in Europe intensive research in this field is still under way. Many cases can be ascribed to heavy exposure to asbestos dating back at least 15 and usually between 20 and 40 years. Decades therefore elapsed before the hazards of fine asbestos dust were clearly recognized and the necessary consequences drawn.

## II. COMMENTS ON THE INDIVIDUAL PARAGRAPHS OF THE MOTION FOR A RESOLUTION:

1.1. The following forms of asbestos are processed:

crocidolite (blue asbestos), chrysotile (white asbestos), amosite, antophyllite, actinolite and tremolite.

Chrysotile accounts for about 95% of the market. It was and still is assumed that crocidolite (blue asbestos) is especially hazardous. In the light of scientific research this distinction between more or less hazardous types of asbestos fibre now appears questionable. At the beginning of 1980 during the sittings of working group I of the Commission's Advisory Committee on Safety, Hygiene and Health at Work, it was stated by experts from several European countries that crocidolite is no more hazardous than other forms of asbestos because the critical factor is not the weight but the number of fibres in a given quantity of asbestos. The assumption that blue asbestos is more hazardous rests on the fact that the brittleness of its fibres makes it more likely than the other forms of asbestos to disintegrate during processing. The few scientifically based surveys in this field have failed to establish any variations in frequency of disease. In the USA no distinction is made between blue and white asbestos. On the other hand, some research findings point to the significance of blue asbestos in the occurrence of mesothelioma.

1.2. The committee was unable to agree whether current scientific findings indicate that blue asbestos is more dangerous than other types of asbestos. The rapporteur and a minority on the committee took the view that scientists had hitherto failed to provide conclusive evidence on this issue. This view was not shared by a majority of the committee, for whom it had clearly been demonstrated that blue asbestos was the most dangerous type.

2. Blue asbestos accounts for no more than 3 to 5% of the market. In the opinion of experts on the subject, its use remains indispensable in those areas where it is still permitted under the Commission proposal. This is considered to apply in particular to large-diameter pipes, where blue asbestos is added both to achieve the required static strength for use under ground, and for better hardening properties. Without it - it is claimed - there would be a risk of deformation. On this basis the rapporteur and a minority on the committee believed that there was as yet no satisfactory substitute for blue asbestos in the manufacture of certain products (such as large-diameter pipes and acid-resistant seals, gaskets and packings under thermal loading). Here too a majority on the committee

disagreed with the rapporteur and took the view, as reflected in the amended motion for a resolution (paragraph 2), that there were safer alternatives to blue asbestos for all current applications.

3.1. The committee believes that the list of prohibited applications for all other forms of asbestos needs revision. As the proposal for a directive is meant to cover the do-it-yourself market as well as industry, it should also prohibit fillers for spraying and spraying itself. This method of application has proved very hazardous, as large amounts of fine asbestos dust are released and inhaled. It was widely used in the USA during the war for insulation in ship-building, and has since been widely used for the fire protection of steel frames in the construction industry. It is now generally banned.

3.2. While on the one hand the hazardous nature of fine asbestos dust of specific dimensions is undisputed, all experts repeatedly stress the insignificance of the amounts of fine asbestos dust released where the asbestos is firmly bonded into another substance. Even when such products are manufactured and processed, the amounts of dust released are small. This is also true of demolition work if properly carried out. The heat generated in braking from high speeds ensures that fine asbestos dust released is amorphous, thus eliminating the hazard. Dust released by weathering of asbestos panels is also minute. Scientific investigation has shown that even among workers in an open-cast asbestos mine, where the fibres lie exposed to the air, higher incidence of disease has not been ascertained.

3.3. The Commission should bear these facts in mind when drawing up the list of prohibited applications. Conversely, where equally good substitute fibres exist, which have been proved to be harmless, the applications in question should be included in the list. This would seem justified in the case of light insulating materials and fire, thermal, acoustic and damp insulation materials, paints, mortars and fillers.

3.4. Point 5.3 of the proposal for a directive (decorative materials) should also be included in the list. The committee further believes that this list of prohibited applications should not be too detailed. With many products the problem is that substitutes already exist, e.g. in the case of fillers containing asbestos for the do-it-yourself market, or packing cord for certain applications. In others, e.g. insulation of machinery, especially in the presence of heavy vibrations and high temperatures, in military vehicles for example, there is as yet no substitute for the same product, for example packing cord. The same is true of acoustic and fire insulation in machine rooms, and of stuffing box packings and acid-resistant seals for pipe and shaft bushings.

3.5. The use of asbestos fibres for such applications and in such products containing them must therefore be controlled and authorized via the permissive clauses. It is therefore most important that the Commission should add a definition of 'harmful release'.

3.6. The list of prohibited applications should be revised in the light of methods yet to be developed for measuring harmful release. The justification for this is even more apparent given that processes ('asbestos dispersion' methods) have already been developed which allow reductions in levels by several orders of magnitude, in both manufacturing and use.

4. As the European Parliament has stated in the past, it believes that products containing asbestos should be marked, hence the amendment inserting a new 5.3. Of course marking makes sense only if the improper use of the article containing asbestos might give rise to a health hazard. It would be absurd to label every aircraft or car 'contains asbestos'. A car itself uses asbestos products for sealing or friction applications in about 16 areas apart from brake pads or linings. Scientific opinion holds that in the vast majority of cases these parts containing asbestos are not worn in such a way as to release asbestos fibres. Sweden has therefore removed these applications from its prohibited list.

5.1. Present methods for measuring fine asbestos dust apply only at the work place. But if this directive is to be effective, measurements must be made of the harmful release of fine asbestos dust from products.

5.2. The Commission has told the committee that such a procedure exists, having been developed by an institute in Holland, but it is only applicable to the asbestos cement industry. Asbestos cement production in the major processing countries in the European Community accounts for about 70% of total asbestos output in tonnage, about 50% in terms of value added, but only one third of the workforce. The other two-thirds are therefore employed in the rest of the asbestos industry, for which tests and measuring methods must therefore also be developed. In some areas, e.g. asbestos fabrics and insulating materials, solutions already seem close to hand.

6.1. The many applications - about 3,000, as we have already seen - and the many excellent technical properties of asbestos, such as its resistance to combustion, heat, acids and micro-organisms, its high electrical resistance and its resistance to mechanical wear, mean that asbestos is still irreplaceable in many areas, especially where high temperatures will be encountered and great resistance is required. Where its most outstanding properties are required, there is still no substitute for asbestos.

6.2. Examples:

Cylinder head gaskets in engines,  
Seals and packings for chemical plant, (pumps, seals for items of equipment where chemical and thermal resistance is required simultaneously),  
Clutch plates and brake drums,  
Electrolysis diaphragms for the production of hydrogen and oxygen, in metallurgy and for the hardening of fats and fertilizer manufacture,

Diaphragms for 'clean' energy sources (batteries),  
Thermal insulation under extreme conditions,  
Asbestos cement for applications combining high mechanical loading and  
weathering,  
Pistons for compressors where high temperatures are encountered,  
Rocket launching pad insulation,  
Guide segments for deep-drilling oil rigs,  
Insulation and clutch parts in mechanical engineering,  
Fire protection in aircraft manufacture,  
Fire resistant asbestos suits for lifesaving.

7.1. The question of substitutes for asbestos has received special attention for some time, in view of the known hazards of fine asbestos dust. Fibres are being produced not only from natural rock but also from glass, ceramics, slag, etc. In addition to these 'natural' mineral fibres, purely synthetic fibres are also being considered as substitutes. While there is some evidence for the harmlessness of the purely synthetic fibres (which cannot, however, be used as substitutes in all applications), the natural mineral fibres have been shown by animal experiments to produce tumours just as asbestos does. Working with glass fibre has also been shown to produce irritation of the bronchial tubes and allergies. The problem is that the natural mineral fibres must also be of specific dimensions if they are to offer similar properties to asbestos. There can be no certainty that they will produce tumours in man, but as a matter of prudence they must be expected to do so.

7.2. There is therefore a two-fold objective for research; first to find substitutes for asbestos and secondly to make sure they are not equally hazardous to health. A different substitute material has to be developed or discovered for nearly every application of asbestos, and frequently only a combination of several basic substitute materials will suffice to reproduce just one property of asbestos.

7.3. There is another practical problem: to produce these substitute fibres several raw materials, intermediate products, and special manufacturing processes may have to be used. One of these primary products or its manufacture may turn out to be hazardous, and the primary products itself may in time turn out to be a health hazard. Examples: Acrylonitrile as a primary product for PAN (polyacrylonitrile fibres) used as substitutes for asbestos fibres and the Kevlar yarn used as a direct substitute for asbestos yarn in protective suits and frequently as a substitute fabric in mixtures with traditional materials. Another possibility is that the product itself, manufactured from substitutes for asbestos, may be dangerous because it turns out to be unsuitable for the intended application.

7.4. Even the Commission concedes that there is not so much experience of natural mineral fibres and synthetic fibres as of asbestos itself. Epidemiological experience is particularly limited. Surely the intention cannot be to replace a natural product like asbestos, occurring naturally in the air, the hazards of which we have gradually learnt to identify, assess and counter, by fibres involving similar or even completely different risks. This aspect of asbestos substitutes deserves particular attention in the research effort.

7.5. The rivalry between asbestos and its potential substitutes is not simply the result of the dust problems associated with asbestos. For example, protective clothing has always been made from fibres other than asbestos. However, when the full range of the physical and chemical properties of asbestos is required in the interests of safety, products containing asbestos are still essential.

7.6. Restrictions on the use of asbestos must not be allowed to force manufacturers to turn to other substances and products liable to give rise to new and as yet unknown health hazards and/or risks of failure. Nor can it be a solution for some countries - including Member States of the European Community - to prohibit the use of asbestos, only to be obliged to import essential products. This is certainly a clear indication that in many cases asbestos remains essential.

8. The committee is strongly in favour of substitutes where they are available and present no hazard to health. However the rapporteur shares the concern of some members of the committee at the failure to make clear who is to decide whether a substitute is more suitable and safer, and is actually to be used. She requests the Commission to come forward with solutions to this problem.

9. For some time a number of scientists have been considering the possibility of reducing the carcinogenic effect of fine asbestos dust by special treatment of the asbestos fibres, following up the findings of animal experiments that have shown that processed asbestos, e.g. in the form of fine asbestos cement dust, is far less carcinogenic than fine dust from untreated asbestos. Scientific advance here could also make it easier to eliminate the uncertainty over the health hazards caused by substitute fibres.

10.1. Scientists believe that if the present rules are observed, asbestosis can largely be eliminated. In the present state of knowledge it is impossible to set limit values to exclude the risk of cancer. Many of the cases occurring today may be traced back to exposure twenty or thirty years ago, when little or nothing was being done to combat dust, and dust levels at the work place were far higher than today. The effectiveness of the measures that have been adopted since will take just as long to evaluate.



10.2. An intensification of research into carcinogens in general and into the carcinogenic effect of asbestos could help prevent any repetition of the miscalculations that occurred over asbestos. If the carcinogenic nature of fine asbestos dust was recognized too late and underestimated at first, we are now faced by an exaggeration of the dangers, which is unjustifiably alarming the general public.

10.3. Asbestos in mineral form is widely distributed over the earth's surface. As a result of natural weathering, minimal asbestos dust levels are nearly always present in the air, regardless of whether asbestos is being manufactured or processed in the vicinity. It is therefore impossible for asbestos to be completely eliminated from our environment.

