

*Rex
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QUEBEC ASBESTOS MINING ASSOCIATION

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*Fred - This may be
of interest*

② R S Smith

February 8, 1973.

Mr. Rex. S. Smith,
Manager - Technical Services,
Whittaker, Clark & Daniels Inc.,
1000 Coolidge Street,
South Plainfield, N.J. 07080,
U.S.A.

Dear Mr. Smith:

Thank you for your letter of February 5.

I have pleasure in attaching a copy of Asbestos and Your Health. Should you require an additional quantity, we will be happy to make this available to you at CAN\$0.15 per copy, plus postage.

With many thanks for your interest,

Sincerely yours,

[Signature]

John Gossip,
Director of Information
Services.

JG/acg
1402

PLAINTIFF'S
EXHIBIT
WCD-54

ASBESTOS AND YOUR HEALTH

The
questions
people
are
asking
— and the
answers

What is Asbestos?

Asbestos is a mineral that is found in many different forms. These forms are known as asbestos minerals. They are found in many different parts of the world, including in the United States. Asbestos is a naturally occurring mineral that is found in many different parts of the world, including in the United States. Asbestos is a naturally occurring mineral that is found in many different parts of the world, including in the United States.

Who uses chrysotile asbestos?

Chrysotile is the most common form of asbestos. It is found in many different parts of the world, including in the United States. Chrysotile is used in many different products, including in the construction industry. Chrysotile is used in many different products, including in the construction industry. Chrysotile is used in many different products, including in the construction industry.

What makes chrysotile asbestos essential?

Chrysotile is essential because it is the most common form of asbestos. It is found in many different parts of the world, including in the United States. Chrysotile is used in many different products, including in the construction industry. Chrysotile is used in many different products, including in the construction industry.

Does chrysotile asbestos present a risk to the general public?

Chrysotile asbestos is a naturally occurring mineral fibre which is found in many parts of the world. It is a member of the asbestos family and is one of the most common types of asbestos. It is found in many parts of the world and is used in many products. It is a naturally occurring mineral fibre which is found in many parts of the world. It is a member of the asbestos family and is one of the most common types of asbestos. It is found in many parts of the world and is used in many products. It is a naturally occurring mineral fibre which is found in many parts of the world. It is a member of the asbestos family and is one of the most common types of asbestos. It is found in many parts of the world and is used in many products.

Does asbestos fibre present a health hazard?

Asbestos fibres are known to be a health hazard. They are found in many parts of the world and are used in many products. They are a naturally occurring mineral fibre which is found in many parts of the world. They are a member of the asbestos family and are one of the most common types of asbestos. They are found in many parts of the world and are used in many products. They are a naturally occurring mineral fibre which is found in many parts of the world. They are a member of the asbestos family and are one of the most common types of asbestos. They are found in many parts of the world and are used in many products. They are a naturally occurring mineral fibre which is found in many parts of the world. They are a member of the asbestos family and are one of the most common types of asbestos. They are found in many parts of the world and are used in many products.

Is asbestos a major air pollutant?

Asbestos is a naturally occurring mineral fibre which is found in many parts of the world. It is a member of the asbestos family and is one of the most common types of asbestos. It is found in many parts of the world and is used in many products. It is a naturally occurring mineral fibre which is found in many parts of the world. It is a member of the asbestos family and is one of the most common types of asbestos. It is found in many parts of the world and is used in many products. It is a naturally occurring mineral fibre which is found in many parts of the world. It is a member of the asbestos family and is one of the most common types of asbestos. It is found in many parts of the world and is used in many products. It is a naturally occurring mineral fibre which is found in many parts of the world. It is a member of the asbestos family and is one of the most common types of asbestos. It is found in many parts of the world and is used in many products.

Do brake linings emit asbestos into the air?

Asbestos is a naturally occurring mineral. It is found in many parts of the world. Asbestos is used in many products, including brake linings. When brake linings are worn, they can release asbestos fibers into the air. These fibers can be inhaled and cause health problems.

Does the use of asbestos cause disease in the general public?

Asbestos is a naturally occurring mineral. It is found in many parts of the world. Asbestos is used in many products, including brake linings. When brake linings are worn, they can release asbestos fibers into the air. These fibers can be inhaled and cause health problems.

Can a little bit of asbestos kill you?

Asbestos is a naturally occurring mineral. It is found in many parts of the world. Asbestos is used in many products, including brake linings. When brake linings are worn, they can release asbestos fibers into the air. These fibers can be inhaled and cause health problems.

Once asbestos enters the lung, does all of it remain there forever?

Asbestos is a naturally occurring mineral. It is found in many parts of the world. Asbestos is used in many products, including brake linings. When brake linings are worn, they can release asbestos fibers into the air. These fibers can be inhaled and cause health problems.

Should the use of chrysotile asbestos be banned?

Chrysotile is a type of asbestos. It is found in many parts of the world. Chrysotile is used in many products, including brake linings. When brake linings are worn, they can release chrysotile fibers into the air. These fibers can be inhaled and cause health problems.

To what extent is chrysotile asbestos an occupational health problem?

Chrysotile is a type of asbestos. It is found in many parts of the world. Chrysotile is used in many products, including brake linings. When brake linings are worn, they can release chrysotile fibers into the air. These fibers can be inhaled and cause health problems.

Can chrysotile asbestos be safely used in the workplace?

Chrysotile is a type of asbestos. It is found in many parts of the world. Chrysotile is used in many products, including brake linings. When brake linings are worn, they can release chrysotile fibers into the air. These fibers can be inhaled and cause health problems.

Shouldn't substitutes for asbestos be used whenever possible?

Not enough is known about the potential health hazards of all currently available asbestos substitutes to recommend their use as a substitute for asbestos. The use of substitutes should be based on the knowledge of the health hazards of the substitute and the health hazards of the asbestos it is intended to replace. The health hazards of the substitute should be known, and the health hazards of the asbestos should be known, before a substitute can be recommended.

What is industry doing about the problem?

Industry is doing a great deal to reduce the health hazards of asbestos. The asbestos industry is working to reduce the health hazards of asbestos by developing new asbestos substitutes. The asbestos industry is also working to reduce the health hazards of asbestos by developing new asbestos substitutes. The asbestos industry is also working to reduce the health hazards of asbestos by developing new asbestos substitutes.

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What does this all mean to you?

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ASBESTOS-RELATED RISKS

1. Asbestos-related health risks are directly related to the job setting. It is important to be taken to eliminate these job-related risks.
2. Asbestos-related health risks are generally reduced after the cessation of substantial exposure to asbestos dust for a prolonged period of time.
3. There is at least one evidence that asbestos in the environment is not a health hazard, but that it is a health hazard in the environment.

For Further Information, Write To:

Asbestos Information Service
P.O. Box 1000, Station D, Montreal, Quebec

Full-time employees of the asbestos industry are also working to reduce the health hazards of asbestos by developing new asbestos substitutes.

Safety & Health Bulletin



**NATIONAL
PAINT &
COATINGS
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No. 15
October 30, 1973

**ROUTE TO
Department**

Finance		
Administration		
Sales		
Technical		
Production		

ASBESTOS HANDLING GUIDELINES

Executive Synopsis

This bulletin was developed by the NPCA Occupational Health Task Force to assist in the compliance with Section 1910.93a "Asbestos" of the regulations implementing the Occupational Safety and Health Act. It includes the background and limits imposed by the regulation as well as methods for compliance. These methods, however, are offered as guidelines and each manufacturer should examine carefully his own specific requirements.

ACTION REQUIRED BY YOU - Forward the bulletin to the person or persons responsible for your safety and health operations.

ACTION TAKEN BY NPCA - The NPCA Occupational Health Task Force will continue to monitor OSHA actions on asbestos, and comment when the paint and coatings industry is affected.

OPERATIONS AFFECTED IN YOUR COMPANY - Manufacturing, Safety and Health

STAFF CONTACT AT NPCA - Richard W. Murry, Assistant Technical Director

The Department of Labor under authority of the Occupational Safety and Health Act, promulgated standards and regulations governing the use and handling of Asbestos. The Regulation appears in Part 1910 of the Occupational Safety and Health Standards, Subpart G, Occupational Health and Environmental Control Section 1910.93a, a copy of which is included in this bulletin. It is the responsibility of each employer to become familiar with the standard and devise a compliance plan to suit the needs of his organization, and is vital that specific accountabilities be assigned to competent staff members. If the provisions of the standard are not well understood, then the service of a reliable industrial hygiene consultant should be sought.

DEFINITION

Section 1910.93a presently defines Asbestos to include chrysotile, amosite, crocidolite, tremolite, anthophyllite and actinolite. (Note that talc is possibly covered under this regulation if fibrous, see Table G-3 of the attached regulations.)

Asbestos fibers are fibers longer than five micrometers.

HAZARDS

Asbestosis and lung cancer have long been associated with exposure to Asbestos. Historically, the incidence of these diseases has been significantly higher among asbestos workers than among the general population. It has also been demonstrated that smokers are much more likely to develop Asbestosis than non-smokers.

Principal sources of employee exposure in the coatings manufacturing industry will result from handling Asbestos. Dumping or changing Asbestos into mixing or thinning tanks or ball mills provides the greatest exposure. Employees performing maintenance work such as installing, repairing, or removing of Asbestos insulating materials, transite piping or siding and roofing could also be exposed to airborne Asbestos.

EXPOSURE LIMITS

As of July 7, 1972, Asbestos dust concentrations in air shall not exceed an eight-hour time-weight average of five fibers longer than five microns per cubic centimeter of air. At no time may the concentration exceed a ceiling of ten fibers longer than five microns per cubic centimeter.

The eight-hour time-weighted average is the average concentration occurring over a period of eight continuous hours.

After July 1, 1976, the time-weighted average is reduced from five to two fibers longer than five microns per cubic centimeter.

CONTROL OF ASBESTOS DUSTS

Engineering controls, such as, but not limited to, isolation, enclosure, local exhaust ventilation and dust collection shall be used to meet the permissible exposure limits. Use of respiratory protective equipment may be employed only:

- (a) During time necessary to install engineering controls
- (b) In situations where controls are technically not feasible or insufficient to meet exposure limits
- (c) In emergencies

When using respiratory equipment the employer should document the use and any studies and investigations undertaken. Failure to have this information on file may result in OSHA's refusal to accept the use of protective equipment.

Some references for information on industrial exhaust systems are:

"Industrial Ventilation - A Manual of Recommended Practices"

ANSI Z-9.2 "Fundamentals Governing the Design and Operation of Local Exhaust Systems"

RESPIRATORY EQUIPMENT

1. Mechanical-filter type respirators (Bureau of Mines approved) are required when the time-weighted average or ceiling concentrations are reasonably expected to exceed no more than ten times the limits.
2. Powered-filter type respirators are required when the time-weighted average or ceiling concentrations are reasonably expected to exceed 10 times, but not 100 times, the limits.
3. Atmosphere-supplying respirators (type "C" supplied air or self contained) are required when the time-weighted average or ceiling concentrations are reasonably expected to exceed 100 times the limits. Spraying of Asbestos or demolition or removal of Asbestos Insulation require the use of atmosphere-supplied respirators.
4. The Respirator program shall be established in accordance with the requirements of "ANSI Z88.2-1969, Practice for Respiratory Protection."
5. Each employee who may use a respirator shall be instructed in its use and in testing it for proper fit.

6. Respirators shall be cleaned and disinfected regularly. Those issued for the exclusive use of one worker should be cleaned at least after each day's work.
7. Respirator may be approved by either the National Institute for Occupational Safety and Health or the U. S. Bureau of Mines, for fibrosis and pneumoconiosis producing dusts.

HYGIENE

A changeroom and duplicate lockers must be provided for employees exposed to concentrations which exceed the time-weighted average or the ceiling limit.

Special clothing, such as coveralls, shall be provided for employees exposed to concentrations which exceed the ceiling limit and for employees engaged in spraying Asbestos and the demolition and removal of Asbestos insulation.

Asbestos contaminated clothing to be laundered shall be handled in sealed, labeled bags (see section on Caution Signs and Labels). Persons involved shall be instructed in proper handling.

The employer shall provide a comprehensive medical exam for all employees within 30 days following the first exposure to airborne Asbestos. Followup medical examinations are to be provided at least annually. Exams must include Chest X-rays and a pulmonary function evaluation.

MONITORING

Every place of employment where Asbestos exposures exist are to be sampled to determine the employees' exposure. If exposure limits are exceeded, measures must be initiated to reduce exposure and protect employees so as to comply with the Federal Regulations.

Sampling shall accurately reflect the employee's exposure during his work period and be collected from within the breathing zone of the employees. Environmental monitoring is also required to define areas where asbestos occurs as well as personnel monitoring to determine the eight - hour time-weighted average.

Samples shall be collected on a membrane filter of 0.8 micrometer porosity mounted in an open-faced filter holder.

Samples may be taken with a portable battery-operated air sampler attached to an employee's belt or placed in the work area. The pump should be capable of drawing air through the filter at a constant rate of at least two liters per minute. For some sources of pumps and filters, see the lists under Appendix B.

CAUTION SIGNS AND LABELS

Caution signs shall be posted at all locations where airborne concentrations of Asbestos fibers may be in excess of the established limits. See Fig. 1

Caution labels shall be affixed to all containers of raw materials, scrap, waste, other products containing Asbestos and Asbestos contaminated clothing. See Fig. 2

Note: Caution labels are not required for products where the asbestos fibers have been modified by a bonding agent, coating, binder or any other material so that under reasonable use no airborne concentration in excess of the exposure limits will be released.

EMPLOYEE NOTIFICATION AND RECORD KEEPING

The employer shall notify, in writing, every employee found to have been exposed at any time to airborne concentrations of Asbestos fibers in excess of the exposure limits.

The establishment of a training program to include work practices to minimize exposure would also be in order.

Medical records of employee examinations must be maintained for 20 years.

Records of personnel and environmental monitoring shall be maintained for three years.

Records shall be made available upon request to representatives of OSHA and NIOSH.

Medical records shall be made available, upon the request of an employee or former employee, to his physician.

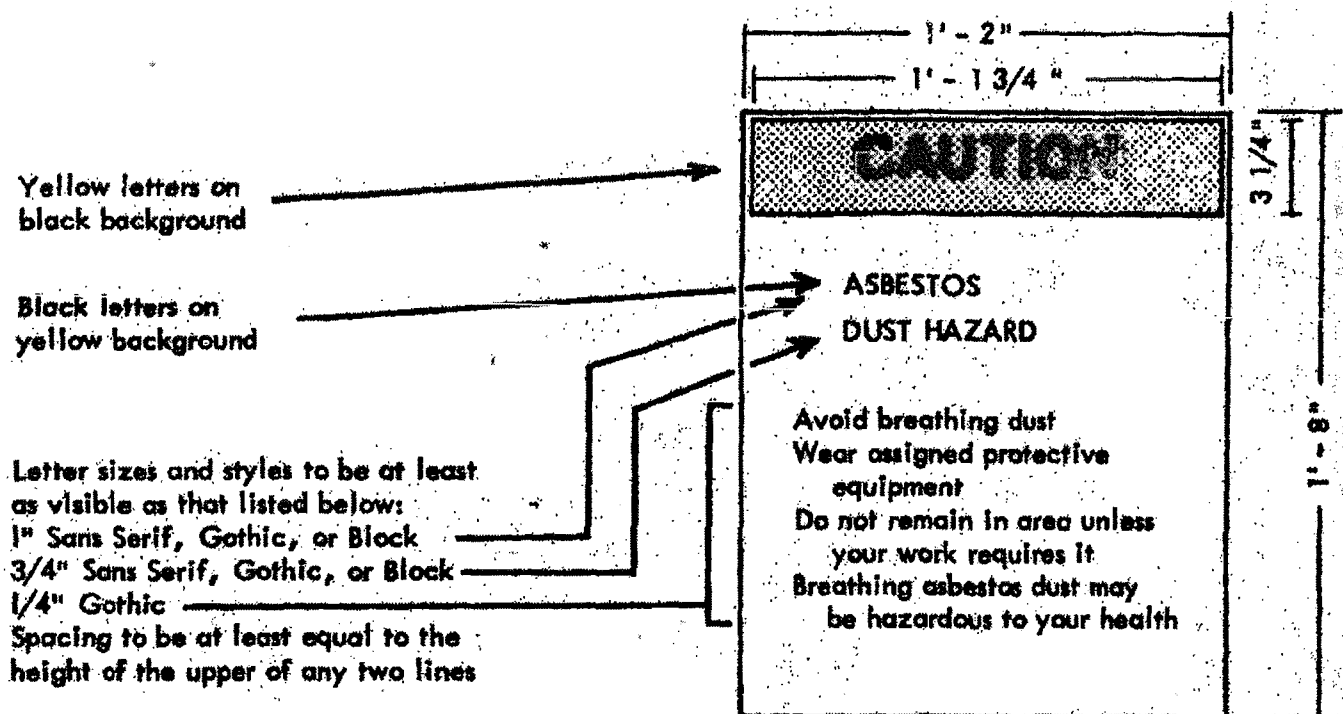


FIGURE 1 - CAUTION SIGN - ASBESTOS DUST
 (Placard for Work Place)

Label size and printing to be readily visible and legible.

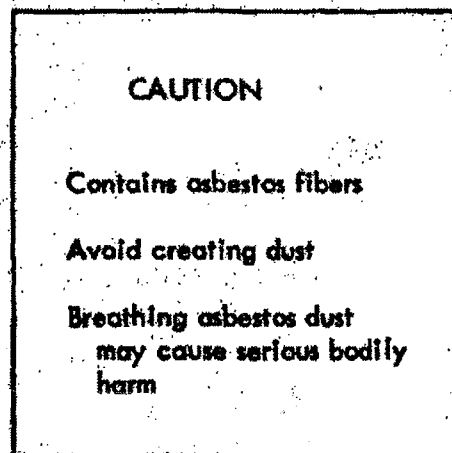


FIGURE 2 -- TYPICAL CAUTION LABEL FOR PACKAGE

REFERENCES

The following are some publications which may be of assistance in the establishment of an Asbestos Handling Program:

1. ANSI Z-9.2-1971, Fundamentals Governing the Design and Operation of Local Exhaust Systems \$ 6.00
2. ANSI Z88.2-1969, Practice for Respiratory Protection \$ 4.50

American National Standards Institute
1430 Broadway
New York, New York 10018
3. Caution: Asbestos Dust... is Hazardous to Your Health

(A worker oriented booklet)

National Institute for Occupational Safety and Health
Room 536, Post Office Building
Fifth and Walnut Streets
Cincinnati, Ohio 45202 (No Charge - Send self addressed mailing label)
4. Criteria for a Recommended Standard... Occupational Exposure to Asbestos

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402 \$ 2.10
5. Design of Industrial Exhaust Systems

4th Edition by Alden and Kane

Industrial Press
200 Madison Avenue
New York, New York 10016 \$ 15.00

6. Industrial Ventilation - A Manual of Recommended Practices

Committee on Industrial Ventilation
P. O. Box 453
Lansing, Michigan 48902 \$ 5.00

7. Occupational Safety and Health Standards
Federal Register, Wednesday, October 18, 1972
Volume 37, Number 202, Part II

Superintendent of Documents
U. S. Government Printing Office
Washington, DC 20402 20¢

8. Plant and Process Ventilation
by W. L. Hemeon

Industrial Press
200 Madison Avenue
New York, New York 10016 \$ 15.00

EQUIPMENT SOURCESAir Sampling Pumps

1. Mine Safety Appliances Company
230 N. Braddock Avenue
Pittsburgh, PA 15208

Trade Name: Gravimetric

2. National Environmental Instruments
P. O. Box 590
Fall River, Mass. 02722

Trade Name: Bendix Micronaire

3. Wilson Casella
P. O. Box 622
Reading, PA 19603

Filters and Refills

1. Gelman
P. O. Box 1448
Ann Arbor, Michigan 48106

Trade Name: Metrical

2. General Electric Company
P. O. Box 846
Pleasanton, California 94566

Trade Name: Nucleopore

3. Millipore Corporation
Bedford, Mass. 01730

Trade Name: Millipore