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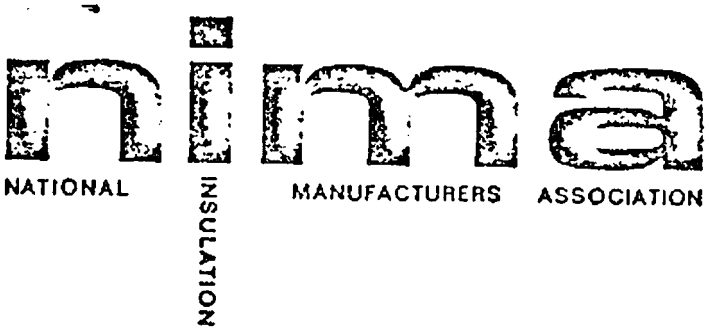
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DOCUMENT DESCRIPTION: Recommended Health Safety Practices for Mineral Fibers

RECOMMENDED HEALTH SAFETY PRACTICES

For Handling And Applying Thermal Insulation Products Containing Mineral Fibers



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INTRODUCTION

Mineral fiber is a generic term and is applied principally to glass wool, rock wool and slag wool. The basic physical structure of each of these materials is a lightweight mass of intermingled mineral fibers processed from a molten state into a fibrous form.

Mineral fiber products are produced in numerous forms for a wide range of uses and applications. Despite the diversity of applications, the health safety practices for handling, fabricating and applying these materials are very similar.

Mineral fiber products will differ primarily in density, rigidity, shape, and fiber dimension, depending upon use and requirements. Products manufactured from coarse fibers may cause some irritation.

Generally these health safety problems can be classified into two major areas:

(1) *Physical contact with mineral fibers.* Contact with mineral fiber particles, as with many other fibers, may result in itching and skin irritation. Particles may enter the eyes particularly during overhead applications.

(2) *Exposure to excessive mineral fiber dusts.* Mineral fiber products when cut or fabricated can produce some dust. Inhalation of excessive quantities of any dust, including mineral fiber dust, may result in some respiratory irritation.

Manufacturers of Thermal Insulation Products containing mineral fiber have for years been taking protective measures to control excessive dust.

The National Insulation Manufacturers Association recommends the following practices for handling and applying thermal insulation products containing mineral fiber to protect the worker.

Insulation contractors and applicators are urged to study these recommended practices carefully and to see that they are observed by all workers handling insulation materials. As with Safety Regulations, it is in the interest of both employer and employee to see that health safety practices are strictly observed.

Prepared By
COMMITTEE ON SAFETY AND HEALTH

NATIONAL INSULATION
NIMA
MANUFACTURERS ASS'N.

An organized housekeeping program should be maintained in all areas and on all operations at all times.

A major source of excessive airborne dust is from loose materials, scrap, and debris distributed throughout the job area and disintegrated by trampling on, running over, etc. Much of the airborne contamination can be eliminated by exercising simple good housekeeping practices.

Specific standards and practices designed for providing safe, clean and orderly working conditions should be defined.

Efficient supervisory control, planning of systematic cleaning plus day to day follow-up are the basic requirements for dust control and health protection.

1 If particles accumulate on exposed skin areas, do not rub or scratch. Remove the particles by washing thoroughly with soap and warm water. If water is not available, use dry wash materials (waterless soap and paper towels).

2 Long-sleeve shirts, long trousers and caps should be worn to cover maximum skin areas to avoid contact with the mineral fibers. Clothing should be loose fitting at collars, wrist bands and waist to eliminate skin irritation.

3 Barrier creams applied to exposed skin areas will provide protection against skin irritation. They should be used prior to handling the material and re-applied according to instructions.

4 Good personal hygiene practices are essential. Thoroughly wash exposed skin areas periodically and shower at end of work day. Change and launder work clothing frequently, separate from other articles.

5 Proper work methods and practices that will eliminate creating excessive dust should be adhered to at all times.

6 Suitable gloves should be worn whenever handling abrasive materials.

7 Mineral fiber slivers that superficially penetrate the skin should be removed by thoroughly washing. Those embedded in the skin should be removed immediately and medical treatment administered.

8 Safety glasses, goggles or face shields should be worn when applying materials overhead or in areas where airborne particles may get into the eyes.

EXPOSURE TO EXCESSIVE MINERAL FIBER DUSTS

1 When mineral fiber materials are machine sawed, die cut, slit, etc., mechanical dust collecting systems adequately designed to remove dust at the source should be installed.

2 Hand cutting, jacket stripping, etc., should be done in a manner that will create minimal airborne dust. Proper methods and tools will help considerably to abate dust.

3 When working in confined spaces, dust collecting systems adequately designed should be provided to remove dust from the source. If conditions prevent collecting dust, use exhaust blowers to provide general room air changes. Avoid exhausting into other work areas. If mechanical exhaust equipment cannot be used to remove excessive dusts, *Respirators should be worn.

4 When applying mineral fiber insulation overhead, workers should be clothed as described on page 5, wear eye protection and *Respirators if excessive dust is generated.

5 When mineral fiber thermal insulations are stripped from piping or other surfaces, the area in which stripping takes place should be confined by means of curtains, portable partitions, etc., to prevent excessive dust concentrations in adjacent areas. All workers in the stripping area engaged in tearing off, handling, cleaning and disposing of material should be clothed as described on page 5, wear eye protection and *Respirators.
Where circumstances permit, materials should be wetted down prior to and during removal. Where applicable, portable mechanical exhaust ventilation should be used to remove airborne dusts from the area.

6 Avoid unnecessary rehandling of scrap by locating disposal equipment as close to working area as possible. Do not permit accumulation of scrap and debris on floor and other surfaces.

* *Bureau of Mines-approved respirators. See page 7.*

RESPIRATORY EQUIPMENT

Only U.S. Bureau of Mines-approved respiratory equipment is recommended for use. Approved respiratory equipment should be used at all operations where dust control is not adequate.

The efficiency and effectiveness of respiratory equipment is dependent upon proper care, cleaning and maintenance. A systematic procedure should be established to assure that this is done.

Lists of currently approved respiratory equipment can be obtained from:

Bureau of Mines
United States Department of the Interior
Nineteenth and E Streets, N.W.
Washington, D.C. 20240

American Industrial Hygiene Association
14125 Prevost
Detroit, Michigan 48227