

OR-0027-0713

ASBESTOS

REPT Z

LATEST REVISIONS: 04/02/92

This information applies to the stated material and may not apply to dilutions or formulations of the material.

CAS NUMBER: 001332-21-4

OTHER IDENTIFIERS: K-028126

SYNONYMS: AMPHIBOLE

CHEMICAL AND PHYSICAL PROPERTIES

These data compiled from various sources and not verified. Additional Information is available through your site's Reactive Chemical Program.

APPEARANCE: fibrous solid in various colors

MOLECULAR WEIGHT: varies

BOILING POINT: 4046 F at 1 atm.

MELTING POINT: 3134 F

VAPOR PRESSURE: none

FLASH POINT: none

FLAMMABILITY LIMITS: noncombustible

STABILITY/REACTIVITY: excellent stability, resistant to acids

POTENTIAL HEALTH EFFECTS

(Revised:03/31/92)

This section includes possible adverse effects which could occur if this material is not handled in the recommended manner.

EYE:

- Solid or dust may cause irritation or corneal injury due to mechanical action.

SKIN:

- Mechanical injury only.
- Skin absorption is unlikely due to physical properties.
- Asbestos fibers may penetrate skin and form wart-like lesions or "corns".

INGESTION:

- Single dose oral LD50 has not been determined.
- Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

ACUTE INHALATION EFFECTS:

Excessive exposure to dust causes chronic inflammations of lung tissue and pleural membranes, as well as cancers, in both man and animals.

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SUBCHRONIC EFFECTS:

- Prolonged exposure to asbestos dust has been found to cause pulmonary fibrosis (asbestosis), which may be disabling and even fatal.

CHRONIC EFFECTS / CARCINOGENICITY:

- Has been shown to cause cancer in humans.
- For hazard communication purposes under OSHA Standard 29 CFR Part 1910.1200, this chemical is listed as a carcinogen by NTP and IARC.

TERATOGENIC EFFECTS:

- Birth defects are unlikely. Exposures having no adverse effects on the mother should have no effect on the fetus.

REPRODUCTIVE EFFECTS:

- In animal studies, has been shown not to interfere with reproduction.

MUTAGENICITY:

- Some forms of asbestos have been reported to induce chromosomal changes in tissue culture and/or fruit flies.

EXPOSURE GUIDELINES

Asbestos (fibers >5 micron): OSHA PEL is 0.2 fibers/cc TWA; 1 fiber/cc for 30-minute short-term exposure. ACGIH TLV is 0.5 fibers amosite/cc, 0.2 fibers crocidolite/cc, 2 fibers chrysotile and other forms/cc; A1a.

- OSHA General Industry Standard 29CFR1910.1001.
- OSHA Construction Standard 29CFR1926.58.

HANDLING PRECAUTIONS AND PROTECTIVE EQUIPMENT (REVISED:04/02/92)

These recommended precautions are intended for use during normal operating conditions; emergency conditions could require additional precautions. (For an explanation of the low, moderate and high potential exposure categories or specific recommendations for your specific operation contact your industrial hygienist.)

EYE

- LOW - Use safety glasses.
- MODERATE - Use safety glasses.
- If there is a potential for exposure to particles which could cause mechanical injury to the eye, wear chemical goggles.

HIGH

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- Use full-face respirator (see inhalation section).

SKIN

- LOW - No precautions other than clean body-covering clothing should be needed.
- MODERATE -
 - Use disposable protective clothing including full-body suit, gloves and booties.
- HIGH -
 - Use disposable protective clothing including full-body suit, gloves, and booties.

INHALATION

- LOW - Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator.
- MODERATE - Use an approved air-purifying respirator.
- HIGH -
 - Use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material.
 - See OSHA standards for more specific respirator requirements.

INGESTION

- Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

VENTILATION

- See OSHA standards for specific ventilation requirements.

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NOTES:

In the U.S., occupational exposure to asbestos is regulated under 29CFR1910.1001(General Industry) and 29CFR1926.58(Construction). Refer to these regulations for details of required ventilation and enclosures.

PROTECTIVE EQUIPMENT INFORMATION

- Use disposable protective clothing.
- OSHA standards require high-efficiency filters for airborne concentrations not in excess of 10 times the PEL. At higher concentrations, positive-pressure supplied-air is required. See standard for details.

EMERGENCY TREATMENT AND MEDICAL NOTES Revised:04/01/92

EYE

- Flush eyes with plenty of water; mechanical effects only.

SKIN

- Wash off in flowing water or shower.

INGESTION

- No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

INHALATION

- No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

NOTES TO PHYSICIAN:

- Although asbestos can be handled properly by the use of suitable protective equipment, exposures are difficult to control. Selikoff in Hiatt, et al., 1977, Origins of Human Cancer, Proliferation, Vol. 4, Cold Spring Harbor Laboratory, NY

END OF REPORT; FOR ADDITIONAL INFORMATION CONTACT:

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