

Material Safety Data Sheet



Calidria Corporation requests that users of "Calidria" Asbestos study this data sheet to become aware of the product's hazards, and promote safe handling of the product by making this information available to its employees, agents, and contractors. If the

material is resold, Calidria Corporation requests that the purchaser be furnished a copy of this data sheet and advised to provide the information herein to its employees, agents and contractors.

SECTION I PRODUCT IDENTIFICATION	
Product Name: CALIDRIA® ASBESTOS.	C.A.S. Numbers: 1332-21-4, 1309-38-2
Chemical/Alloy Name: Chrysotile Asbestos.	Formula/Composition: $Mg_6(OH)_8Si_4O_{10} \cdot Fe_3O_4$
Synonyms: Asbestos, White Asbestos, Hydrated Magnesium Silicate.	

SECTION II PHYSICAL DATA	
Sizes: 3/8" pellets to powder.	Solubility in Water: Very slightly soluble.
Specific Gravity: 2.45 approximately. ($H_2O=1$).	Melting Point: °F (°C) Dehydrates above 1112 (600).
Odor: None.	Boiling Point: °F (°C) Not applicable.
Appearance: White fibrous solid or pellets.	Vapor Pressure: Not applicable.
Bulk Density: 15-45 lb/ft ³ , as packaged. (Depends on product form.)	Percent Volatile: Absorbed H_2O 1-4% by weight. Structural H_2O ~13% by weight.
Molecular Weight: Not applicable.	Evaporation Rate: Not applicable.

<u>SECTION III</u>		<u>HAZARDOUS INGREDIENTS</u>	
Material or Component (CAS #)	Weight %	PEL Data (TWA Unless Noted)	
Chrysotile Asbestos (1332-21-4)	95-98%	2 fibers/cc longer than 5 μ	(1)(2)(3)(5)
		10 fibers/cc longer than 5 μ , ceiling	(1)(2)(3)(5)
		0.1 fibers/cc longer than 5 μ	(4)
		0.2-0.5 fibers/cc longer than 5 μ	(1) (Proposed)
Magnetite Fe ₃ O ₄ (1309-38-2)	0.5-2	5 mg/cu m respirable dust	(1)(2)(5)
		15 mg/cu m total dust	(1)
		10 mg/cu m total dust	(2)(3)
References: 1 OSHA Standard 1910.1001 2 MSHA Standard 3 Current ACGIH 4 NIOSH Recommendation 5 Calidria Internal Standard			

Emergency H.E.L.P. Telephone: 304-744-3487

Calidria Corporation • P.O. Box K, King City, California • 93930

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SECTION IV HEALTH HAZARD DATA

ACUTE EFFECTS OF OVEREXPOSURE

Route of Exposure:

- Inhalation: Any dust (including asbestos) which is inhaled in substantial amounts, may irritate the respiratory tract. Extreme exposures can overwhelm the normal respiratory defense mechanisms and result in temporary difficulty in breathing.
- Skin Contact: Asbestos splinters may penetrate the skin and cause asbestos "corns."
- Skin Absorption: Not applicable.
- Eye Contact: May cause irritation and abrasions.
- Ingestion: No known effects.

CHRONIC EFFECTS OF OVEREXPOSURE

Route of Exposure:

- Inhalation: Overexposure to Chrysotile Asbestos has caused damage to lungs (asbestosis), lung cancer and mesothelioma of the pleura and peritoneum. Symptoms, which are usually not manifested until 15-20 years after exposure, include labored breathing, chest pains, weakness, and chest tightness. Pleural thickening, plaques and effusion are nondisabling conditions, seen separately or together, that have been associated with prolonged asbestos exposure. The risk of lung cancer is greatly increased for those who smoke cigarettes regularly in addition to having asbestos exposures.
- Skin Contact: Not applicable. 61920V
- Skin Absorption: Not applicable.
- Eye Contact: Same as acute effects. Usually reversible on removal from exposure.
- Ingestion: Some studies indicate that asbestos overexposure is implicated as a cause of gastro-intestinal and laryngeal cancers, but the evidence is conflicting.

EMERGENCY AND FIRST AID PROCEDURES

Route of Exposure:

- Inhalation: No acute toxicity: Remove to fresh air. If breathing is difficult, oxygen may be administered. If breathing has stopped, administer artificial respiration. Call a physician.
- Skin Contact: Remove asbestos slivers promptly. If "asbestos corn" develops, surgical removal may be required.
- Eye Contact: Irrigate gently with water for 15 minutes. Refer to ophthalmologist to rule out possibility of damage to cornea or eyeball by fibers.
- Ingestion: None indicated.

NOTES TO PHYSICIAN

A medical surveillance program must be established for asbestos-exposed persons in accordance with the requirements of the Occupational Safety and Health Administration's standard for Asbestos (29 CFR Part 1910.1001).

<u>SECTION V</u> <u>FIRE AND EXPLOSION DATA</u>

Combustibility: Not combustible. Flammable Limits: Not applicable.
Flash Point (Test Method): Not applicable. Autoignition Temperature: Not applicable.
Explosion Tendency: Not applicable.
Extinguishing Media: Use media appropriate for surrounding material in fire situation.
Special Fire-Fighting Procedures: Avoid media and procedures that cause airborne dust. Personnel involved in fire-fighting should use NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.
Unusual Fire and Explosive Hazard: See above.

<u>SECTION VI</u> <u>REACTIVITY DATA</u>
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Stability: Stable (Temperatures in excess of 1112 °F (600 °C) cause loss of bound water).
Conditions to Avoid: None.
Hazardous Decomposition Products: None.
Material to Avoid: None.

<u>SECTION VII</u> <u>SPILL, LEAK, AND DISPOSAL INFORMATION</u>

Steps to be Taken if Material is Spilled or Released: Avoid breathing dust. Notify Safety personnel of spill. Permit only trained clean-up personnel in the spill area. Use wet methods or approved vacuum cleaning system to pick up spilled materials. Use water or other dust suppressants where sweeping is unavoidable. Do not stir up dust. Clean-up personnel should wear approved respirators and protective clothing. Waste and contaminated protective clothing must be placed in dust-tight containers and be properly labeled for disposal.

Neutralizing Agents: Not applicable.

Waste Disposal Method: Bags, friable asbestos, waste and scrap material should be disposed of in a manner which will avoid airborne concentrations of asbestos, such as the use of dust-tight trash bags or containers. Such containers should be labeled in accordance with 40 CFR 61.20. Asbestos is also classified as a hazardous material under CWA 307(a) and has a reportable quantity of one pound. Deposit waste containers in a secured landfill in accordance with Federal, State, and local regulations.
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<u>SECTION VIII</u> <u>SPECIAL PROTECTION INFORMATION</u>

Ventilation: Provide adequate exhaust ventilation and capture filtration to remove asbestos particulate from the workplace and minimize its dispersion into the environment. Isolate work areas and post signs where asbestos contamination may exceed PEL. Hand- or power-operated tools which may release asbestos in excess of the PEL must be equipped with local exhaust systems.
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SECTION VIIISPECIAL PROTECTION INFORMATION (Continued)**Personal Protective Equipment:**

Respiratory Protection (Type): Where asbestos exposure in excess of the permissible limits is anticipated, wear a NIOSH/MSHA-approved respirator; a reusable or single-use air purifying respirator up to 10 times the PEL: a powered air purifying respirator up to 100 times the PEL: a continuous-flow or pressure-demand Type C supplied air respirator for greater than 100 times the PEL.

Eye Protection: Goggles are recommended. Follow Safety Rules.

Gloves/Clothing: Gloves are recommended during handling.

Other: For concentrations in excess of the ceiling limit special clothing, such as coveralls, whole-body clothing, head coverings, gloves, and foot coverings are required under CFR 1910.1001.

SECTION IXSPECIAL PRECAUTIONS**Precautionary Statements:**WARNINGCANCER HAZARD

Breathing asbestos dust can cause lung damage and cancer. The risk of lung cancer is greatly increased for smokers.

Do not create or breathe dust.

Do not dry-sweep or use air hose for cleaning.

Do not take protective equipment or clothing home.

Do follow recommended work practices.

Do wear approved respiratory protection and protective clothing as required by applicable regulations.

Do use vacuum or wet cleaning methods.

Do dispose of dust, friable waste materials and contaminated protective equipment in dust-tight containers.

FOR INDUSTRIAL USE ONLY

Precautions for Handling and Storage: Store asbestos in closed containers (dust-tight) in a clean, dry, secure area. Protect containers from damage. Do not open containers in a manner that can release dust without providing proper enclosure or control measures. Use dust suppression control measures at all stages of asbestos handling, use and disposal. Follow good housekeeping practices to prevent accumulation of asbestos-containing dusts. Avoid inhalation of asbestos.

Other Precautions:**Material Listed as Carcinogen in:**

National Toxicology Program Annual Report (NTP): Known carcinogen.

International Agency for Research on Cancer (IARC): Group I - Carcinogenic to humans.

OSHA 29 CFR Part 1910, Subpart Z: Occupational Exposure to Asbestos, Notice of Proposed Rulemaking, F.R. Vol. 49 No. 70, p. 14116 et seq. Tues., Apr. 10, 1984.

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Effective Date: December 31, 1984.

Calidria Corporation believes that the data herein are current as of the effective date of this data sheet, and that the opinions herein are those of qualified experts. Since the product and the information herein will be used outside the control of Calidria Corporation, it is the user's responsibility to establish conditions for safe use of the product. The data herein relates only to the product of Calidria Corporation and may not be applicable for products of other manufacturers.



INTERNAL
CORRESPONDENCE

UNION CARBIDE CORPORATION PO BOX 16000 ROCKY RIVER OH 44116
BATTERY PRODUCTS DIVISION

M. R. Huffman
Corporate Applied Toxicology
Danbury P-2

DATE April 23, 1986
TO: Mr. D. R. Crowell Employee Relations

FROM: Mr. D. R. Crowell

N. R. Armitage - Rocky River
A. M. Nash - Rocky River
C. M. Langkau - Technology
L. Harris - Technology

SUBJECT: Material Safety Data Sheets

Dear Marvin:

Please find enclosed sets of worksheets on the following chemicals:

- 1) Nickel Hydroxide,
- 2) Cadmium Hydroxide,
- 3) Cadmium Sponge (Cadmium Metal), ✓
- 4) Zinc Sulfate,
- 5) Cadmium Sulfate,
- 6) Sodium Nitrate,
- 7) Asbestos. ✓

As a matter of explanation, several of our facilities have asbestos containing items for which we would like to provide an MSDS. In most of these, the vendor either no longer exists or no longer manufactures asbestos. In all cases, asbestos has not been shipped (or received by us) after November 25, 1985.

As I understand the procedure, you will provide information for Worksheet V - Health Hazard Data. I note that our worksheet has erroneously omitted "Medical Conditions Aggravated by Overexposure" -- I assume that you will also provide that information.

I have made arrangements with D. R. Crowell of the Law Department to provide a legal review. Could you please forward the worksheet sets to him subsequent to your contribution?

Thank you very much for your assistance.

Very truly yours,

Clyde V. McClung
C. V. McClung

CVM/1w

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Enclosures

AU2515

From the Desk of:

T. GUY FORTNEY, M.D.

N-2568, Danbury, CT

Telephone (203) 794-4677

Section # of the
talidomide MSA on
asbestos can be used
as it had input from
the prom corp. Toxicology
and Dr. H. C. Farnsworth.

TGF

MPH

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