

Grades : 550 LF, LJ
 880 LAH, LFH, LJH
 970 LA, LF, LJ, LAH, LFH, LJH, LKH
 971 LAH, LFH
 1530 LA, LF, LJ, LAR
 1535 LK, GC
 Rollboard 1/8, 1/10, 1/16".

Date Revised: May, 1998

I. PRODUCT IDENTIFICATION

Trade Name: LYTHERM® Ceramic Fiber Papers.
 Chemical Name: Alumina silica.
 Manufacturer: Lydall Technical Papers
 P.O. Box 1960
 Rochester, NH 03866
 Telephone: 1-603-332-4600/4605

II. PRODUCT INGREDIENTS

INGREDIENT NAME	CAS NUMBER	%	PEL AND TLV (except as noted)
Acrylic latex	NA	0 - 12	
Ceramic fiber	142844-00-6	88 - 100	0.5 fiber/cc recommended exposure guideline 1 fiber/cc OSHA Proposed Std. 5 mg/cu. m. OSHA respirable dust. 15 mg/cu. m. OSHA Total dust. 3 mg/cu.m. (TWA) ACGIH* for Particulates Not Otherwise Classified (respirable particles).
Crystalline silica (cristobalite) will form after this product has been in service at temperatures greater than 1000° C.	14464-46-1	< 20	0.05 mg/cu. m. (TWA) ACGIH

* American Conference of Governmental Industrial Hygenists.
 NA: Not Applicable

III. PHYSICAL DATA

Appearance and Odor: White paper. No odor.

Water Solubility (%): Insoluble.

Density: 7.5 to 10.5 lbs/cu. ft.

IV. FIRE AND EXPLOSION DATA

Flash Point: Unknown. The acrylic latex in this product will burn.

Extinguishing Media: Water, carbon dioxide, foam, dry chemical, Halon.

Unusual Fire or Explosion Hazards: None.

Special Fire-Fighting Procedures: None.

V. HEALTH HAZARDS

A. Summary/Risks

Summary: Ceramic fibers used in manufacturing this product are under investigation as a possible animal carcinogen. Two categories of studies on laboratory animals, breathing high concentrations and artificial exposure (implantation), have reported tumors. No data from human epidemiological studies are available. Based on animal studies the International Association for Research on Cancer (IARC) has classified ceramic fibers as a group 2B substance, possibly carcinogenic to humans. This product as sold will not spontaneously generate any significant emissions of ceramic fiber dust. After this product has been in service at high temperatures (> 1000° C), ceramic fibers can transform into crystalline silica. The IARC has placed crystalline silica in group 1, carcinogenic to humans.

Medical conditions which may be aggravated: Pre-existing upper respiratory and lung diseases may be aggravated by dust.

Target Organs: Skin, eyes, lungs.

Acute Health Effects: Mechanical irritation of respiratory system, skin, and eyes.

Chronic Health Effects: Exposure to "after service" dust containing cristobalite may cause lung damage such as silicosis.

Primary Entry Route(s): Inhalation, eye and skin contact.

B. Signs/Symptoms of Overexposure

Inhalation: Overexposure to dust may cause irritation or soreness in the throat and nose.

Skin Contact: Irritation or rash.

Eyes: Irritation or inflammation of the eyes.

Ingestion: May cause irritation to the gastro-intestinal tract.

C. First Aid/Emergency Procedures

Inhalation: Remove to fresh air. Drink water to clear throat. Blow nose to evacuate fibers.

Skin Contact: Wash with soap and water.

Ingestion: Do not induce vomiting.

Eyes: Flush with clean water for 15 minutes.

CONSULT A PHYSICIAN IF ANY SYMPTOMS PERSIST.

VI. REACTIVITY DATA

Chemical Incompatibilities: Hydrofluoric acid and strong alkalis.

Conditions to Avoid: None in designed use.

Hazardous Decomposition Products: See Section II

VII. SPILL OR LEAK PROCEDURES

Procedures for Spill/Leak: Vacuum dust and debris with a cleaner equipped with a HEPA filter.

Waste Management: This product is not listed as a hazardous waste nor does it exhibit any characteristics of a hazardous waste.

VIII. SPECIAL PROTECTION INFORMATION

HMIS rating: Health = 1 Flammability = 1 Reactivity = 0
Personal Protection = E

Goggles: If processing or handling this material creates excessive dust, goggles and face shield are recommended.

Gloves: Use barrier gloves if handling produces skin irritation.

Respiration: LYTHERM AS SOLD:

Less than 0.5 fiber/cc, use 3M 9900 or equivalent.

< 10 fibers/cc, use MSA COMFO Half-Mask (or equivalent) with HEPA filters.

< 50 fibers/cc, use MSA ULTRA-TWIN (or equivalent) with HEPA filters.

> 50 fibers/cc, use NIOSH approved full face respirator with positive-pressure supplied air.

AFTER SERVICE AT TEMPS. > 1800° F:

< 0.25 mg/cu. m, use MSA COMFO Half-Mask (or equivalent) with HEPA filters.

< 1.25 mg/cu. m, use MSA ULTRA-TWIN (or equivalent) with HEPA filters.

> 1.25 mg/cu. m, use NIOSH approved full face respirator with positive-pressure air supply.

Ventilation: Ventilate to minimize airborne fibers.

Other: Wash hands after handling. Wash contaminated clothing separately. Disposable coveralls are recommended if excessive dusting occurs.

IX. SPECIAL PRECAUTIONS

Special Handling/Storage: Keep this material dry.

Special Workplace Engineering Controls: Ventilate to minimize airborne dust.

X. REGULATORY

SARA TITLE III: This product does not contain any substances reportable under SARA Title III, Sections 302, 304, and 313.

TSCA INVENTORY: All substances contained in this product are listed in the Toxic Substances Control Act (TSCA) Chemical Inventory. Refractory ceramic fiber is subject to the TSCA Export Notification Requirements, Section 12(b), and must be reported to the US EPA when shipped out of the United States.

CALIFORNIA Prop. 65:

WARNING: This product contains ceramic fiber, a chemical known to the State of California to cause cancer.

WARNING: After service at temperatures $> 1000^{\circ} \text{C}$, this product may form crystalline silica, a chemical known to the State of California to cause cancer.

DOT CLASS: Not regulated.

CANADA DOMESTIC SUBSTANCE LIST: Loose refractory ceramic fiber is a class D-2.A controlled product under Canada WHMIS regulations based on the IARC classification of 2B for man-made vitreous fiber.

Prepared/Revised By: Ed Minerowicz

Title: Process Control Mgr.

As of the date of preparation of this document, the foregoing information is believed to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given. When an individual or company processes, repackages, or incorporates these products into an article, it is the individual's/company's responsibility to convey all health, safety, and environmental information to the receiver, and to ship with the proper warning labels (see Section X above).