MATERIAL SAFETY DATA SHEET

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FFIL . LAB (TG-2D) YOU GENERAL CHEMICALS MSDS ID: 83334

Replaces (None) Printed 5/15/96

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

ICI Americas Inc. Concord Plaza, 3411 Silverside Rd. P.O. Box 15391 Wilmington, Delaware 19850

ICI Operator (24 hr.): (302) 887-3000 Medical Emergency (24 hr.): (800) 228-5635 Extension 181 Chemical Emergency (24 hr.) Involving Transportation Spills, Leaks, Fires, Accidents: (800) 424-9300

Material name: SAFFIL LAB (TG-2D)

Hazard summary (as defined by OSHA Hazard Comm. Std., 29 CFR 1910.1200):

Physical hazards: None Health hazards: Inhalation (TLV)

Read the entire MSDS for a more thorough evaluation of the hazards.

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

学等于国际基础是否的的 INGREDIENTS Alumina (CAS 1344-28-1)

OSHA PEL >95 10 mg/m3 (total dust) 5 mg/m3 (resp. fraction)

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications.

SECTION 3 PHYSICAL DATA

Appearance and odor: White odorless fibers

Melting point: >3632° F, 2000° C Vapor pressure (mm Hg at 20° C): Not applicable

Vapor density (air = 1): Not applicable

Solubility in water: Insoluble

pH: Not applicable Specific gravity: 3.3 % Volatile by volume:

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash point: Not applicable Autoignition temperature: Not applicable Flammable limits (STP): Not applicable

Extinguishing media:

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SECTION 4 FIRE AND EXPLOSION HAZARD DATA (Cont.)

Not applicable. Use media suitable for surrounding fire.

Special fire fighting protective equipment: Self-contained breathing apparatus with full facepiece and protective clothing if involved in a fire of other materials.

Unusual fire and explosion hazards: None known.

SECTION 5 REACTIVITY DATA

Stability:

Stable under normal conditions.

Incompatibility: None known.

Hazardous decomposition products: None known.

Hazardous polymerization: will not occur.

SECTION 6 HEALTH HAZARD ASSESSMENT

Extensive toxicity test data are available on this specific fibrous product; this health hazard assessment is based on the results of those tests which occur in the scientific literature.

Ingestion:

The acute oral LD50 in rat is above 5,000 mg/kg. Relative to other materials, a single dose of this product is practically nontoxic by ingestion. A lifetime feeding study in rats has produced no evidence of any adverse effects at levels up to 2.5% in the diet.

Eve contact:

Mechanical irritation can result after contact with this material.

Skin contact:

This material is a mild irritant in rat dermal irritation tests. Practical experience has shown the product to be mildly irritating in susceptible individuals.

Skin absorption:

This product will not be absorbed through human skin.

Inhalation:

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SECTION 6 HEALTH HAZARD ASSESSMENT (Cont.)

Temporary mechanical irritation of mucous membranes of the upper respiratory tract may develop following exposure to this fibrous material. Lifetime rat inhalation studies at the maximum concentrations achievable show no evidence of lung cancer, lung fibrosis or any other adverse effect, apart from a minimal pulmonary response typical of that of a "nuisance particulate."

*** Other effects of overexposure:

'Saffil' fiber was administered to rats in intraperitoneal, intratracheal and intrapleural studies and all showed negative results. An international reference standard asbestos was used as a positive control and behaved as predicted in all of these studies. This comprehensive package of toxicological studies indicates that 'Saffil' fiber showed no fibrogenic, carcinogenic nor other significant toxicological effects when exposure occurs by relevant routes (i.e., by inhalation or oral ingestion) or when introduced artificially into the lung in large quantities by injection.

Despite this evidence, the International Agency for Cancer Research (IARC) has placed 'Saffil' into a broad group called ceramic fibers which they have classified as "possibly carcinogenic to humans." The State of California has adopted IARC's definition of ceramic fiber under California's Proposition 65 so 'Saffil' is covered by these regulations.

First aid procedures:

Skin: Wash material off of the skin with plenty of soap and water. redness, itching, or a burning sensation develops, get medical attention.

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

Ingestion: Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

Inhalation: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

SECTION 7 SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled:
Wear respiratory protection during cleanup. Sweep up and recover or
mix material with a moist absorbent and shovel into a chemical waste
container. Wash residue from spill area with water containing
detergent and flush to a sewer serviced by a wastewater treatment

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SECTION 7 SPILL OR THEAK PROCEDURES (Cont.)

facility.

Disposal method:

Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

SECTION 8 SPECIAL PROTECTION INFORMATION

TLV* or suggested control value:

The OSHA PEL and ACGIH TLV for alumina is 10 mg/m3 (total dust). OSHA also lists a PEL of 5 mg/m3 for the respirable fraction.

Ventilation:

If needed, use local exhaust to minimize exposures.

Respiratory protection:

If needed, use MSHA-NIOSH approved respirator for dusts, mists and fumes whose TLV is greater than 0.05 mg/m3.

Protective clothing:

Impervious gloves and apron. Use loose fitting clothes with long sleeves to minimize skin irritation. Work clothing should be washed separately.

Eye protection:

Safety glasses with side shields.

Other protective equipment:

Eyewash station in work area.

SECTION 9 SPECIAL PRECAUTIONS OR OTHER COMMENTS

Special precautions or other comments: Avoid breathing dusts.

SECTION 10 REGULATORY INFORMATION

TSCA (Toxic Substances Control Act) Regulations, 40 CFR 710: All ingredients are on the TSCA Chemical Substance Inventory.

CERCLA and SARA Regulations (40 CFR 355, 370, 372): Section 313 Supplier Notification. This product contains the

following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

100% aluminum oxide

*** Other Determined Regulations:

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SECTION 10 REGULATORY INFORMATION (Cont.)

California Proposition 65: WARNING. This product is classified by the State of California as a ceramic fiber. Ceramic fibers are known to the State of California to cause cancer.

The information herein is given in good faith but no warranty, expressed or implied, is made.

***This line or section contains revisions or new statements since the last issue date.