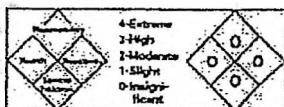


FILE NAME: Marley (MAR)

DATE: 1985 Apr 9

DOC#: MAR010

DOCUMENT DESCRIPTION: Material Safety Data Sheet from Johns
Manville



NFPA FIRE HAZARD SYMBOLS
See NFPA 704 for detailed explanation.

MATERIAL SAFETY DATA SHEET

No.: 1030 Rev. No.: 2
Date Prepared: 04/09/85

Manville

I. PRODUCT IDENTIFICATION

Trade Name(s): FLAT TRANSITE
Generic Name: ASBESTOS CEMENT BOARD
Chemical Name:

CAS #: NA
Formula: MIXTURE

Manufacturer: MANVILLE PRODUCTS CORP.
Address: P.O. BOX 3108
City: DENVER

State: CO Zip: 80217

Telephone: (303) 878-4900
Emergency:

II. PRODUCT INGREDIENTS

INGREDIENT NAME	CAS NUMBER	%	PEL and TLV (except as noted)
CHRYSOTILE ASBESTOS FIBER	1332-21-4	40	2 f/cc
PORTLAND CEMENT	65997-15-1	60	5 mg/m ³ (RESPIRABLE DUST)

CUTTING, DRILLING, OR OTHERWISE ABRADING THIS PRODUCT WILL RELEASE ASBESTOS FIBER - SEE HEALTH HAZARD INFORMATION BELOW.

III. PHYSICAL DATA

Appearance and Odor: GRAY SOLID SHEET - NO ODOR.

Boiling Point: NA
Vapor Pressure: NA
Water Solubility (%): NEGLIGIBLE
Vapor Density (Air=1): NA

Evaporation Rate (NA) = 1 : NA
Specific Gravity (water = 1) : 1.6
Melting Point: NA
% Volatile by Volume: 0

IV. FIRE AND EXPLOSION DATA

Flash Point (Method): NONFLAMMABLE
Flammable Limits: LEL: NA % UEL: NA %
Extinguishing Media: NA
Unusual Fire or Explosion Hazards: NONE

NFPA Flammable/Combustible Liquid Classification: NA
Auto-Ignition Temperature: NA

Special Fire-Fighting Procedures: NONE

V. HEALTH HAZARDS - Summary/Risks

Summary: EXCESSIVE EXPOSURE TO HIGH CONCENTRATIONS OF AIRBORNE ASBESTOS FIBERS CAN CAUSE CHRONIC PULMONARY DISEASE.
THIS SUBSTANCE OR MIXTURE IS CONSIDERED A KNOWN HUMAN CARCINOGEN BY NTP, IARC AND OSHA.

Medical conditions which may be aggravated: PRE-EXISTING UPPER RESPIRATORY AND LUNG DISEASE SUCH AS BUT NOT LIMITED TO BRONCHITIS, EMPHYSEMA, AND ASTHMA.
Target Organ(s): RESPIRATORY AND PULMONARY SYSTEM.
Acute Health Effects: THERE ARE NO ACUTE SIGNS OR SYMPTOMS ASSOCIATED WITH ASBESTOS.

Chronic Health Effects: THE DISEASE ASSOCIATED WITH OVEREXPOSURE ARE CHRONIC, GENERALLY TAKING FROM 10 TO 40 YEARS TO BECOME APPARENT.

Primary Entry Route(s): INHALATION.

V. HEALTH HAZARDS B. Signs/Symptoms of Overexposure

Inhalation: EXCESSIVE EXPOSURE TO HIGH CONCENTRATIONS OF AIRBORNE ASBESTOS FIBER CAN CAUSE CHRONIC PULMONARY DISEASE AND CANCER.

Skin Contact: FIBERS CAN BECOME IMBEDDED IN SKIN AND IN SOME CASES RESULT IN ASBESTOS "CORNS".

Skin Absorption: NONE

Ingestion: CURRENT STUDIES ESTABLISH NO RELATIONSHIP BETWEEN GI DISEASES AND THE INGESTION OF ASBESTOS FIBERS AS CURRENTLY FOUND IN ENVIRONMENT AND OCCUPATIONAL SETTINGS.

Eyes: AS WITH ANY DUST, EXCESSIVE EXPOSURES CAN CAUSE TRANSIENT EXPOSURE.

V. HEALTH HAZARDS C. First Aid/Emergency Procedures

Inhalation: REMOVE TO FRESH AIR.

Skin Contact: WASH OR SHOWER THOROUGHLY USING SOAP AND WARM WATER.

Skin Absorption: NA

Ingestion: NA

Eyes: FLUSH WITH COPIOUS QUANTITIES OF WATER.

VI. REACTIVITY DATA

MATERIAL IS STABLE.

HAZARDOUS POLYMERIZATION CANNOT OCCUR.

Chemical Incompatibilities: NONE KNOWN

Conditions to Avoid: NONE IN DESIGNED USE.

Hazardous Decomposition Products: NONE

VII. SPILL OR LEAK PROCEDURES

Procedures for Spill/Leak: VACUUM CLEAN SPILLAGE AND DUST CREATED DURING FABRICATION. IF SWEEPING IS NECESSARY WET DOWN SPILLAGE. USE RESPIRATORY PROTECTION AS REQUIRED.

Waste Management: DUST OR SCRAP CREATED DURING FABRICATION OR DEMOLITION MUST BE DISPOSED ACCORDING TO NESHAP (40 CFR 61, SUBPART M). STATE AND LOCAL REGULATIONS MAY ALSO APPLY.

VIII. SPECIAL PROTECTION INFORMATION

Goggles: RECOMMENDED WHEN USING POWER CUTTING TOOLS.

Gloves: NOT NORMALLY REQUIRED.

Respirator: USE APPROVED RESPIRATOR, SUCH AS 3M MODEL 9900 OR EQUIVALENT FOR PROTECTION AGAINST PNEUMOCONIOSIS PRODUCING DUST.

Ventilation: CONTROL WITH MECHANICAL DUST COLLECTION EQUIPMENT TO WITHIN TLV. (SEE AMERICAN NATIONAL STANDARDS INSTITUTE BOOKLET, 29.2, 1971).

Other: USE SPECIAL CLOTHING AS REQUIRED BY OSHA STANDARD FOR EXPOSURE TO ASBESTOS DUST 29 CFR 1910.1001(d).

Special Considerations for repair/maintenance of contaminated equipment: USE ALL PROPER PROTECTIVE EQUIPMENT WHEN POSSIBILITY OF EXPOSURE TO ASBESTOS DUSTS EXISTS.

IX. SPECIAL PRECAUTIONS

Storage Segregation Hazard Classes: CARCINOGEN.

*** ALWAYS SEGREGATE MATERIALS BY MAJOR HAZARD CLASS ***

Special Handling/Storage: STORE FLAT.

Other: SMOKING GREATLY INCREASES THE CHANCE FOR ASBESTOS-RELATED LUNG DISEASE. IF YOU WORK WITH ASBESTOS DO NOT SMOKE.

Prepared/Revised by: RONALD L. BATTLES

Title: MANAGER, PRODUCT SAFETY

As of the date of preparation of this document the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.

MATERIAL SAFETY DATA SHEET

MSDS NUMBER

PRODUCT IDENTIFICATION

TRADE NAME CORRUGATED BOARD AND/OR TRAFFORD TILE	GENERIC NAME CEMENT-ASBESTOS BOARD
MANUFACTURER'S NAME TURNERS BUILDING PRODUCTS LTD.	CAS NUMBER
ADDRESS (STREET) 33778 FIRST AVENUE	PHONE NUMBER (604) 826-1181 or (604) 462-8241
CITY MISSION	PROVINCE B. C., CANADA
POSTAL CODE V2V 1H6	CHEMICAL STRUCTURE

I - PRODUCT INGREDIENTS

MATERIAL	CAS NUMBER	%	TLV
Chrysotile Asbestos Fiber	1332-21-2	15	2 1/2 cc
Portland Cement	65997-15-1	65	
Inert mineral fillers		20	

II - PHYSICAL DATA

BOILING POINT N/A	SPECIFIC GRAVITY 1.6
SOLUBILITY IN WATER Negligible	PERCENT VOLATILE
APPEARANCE AND ODOR Solid grey sheet - no odor	

III - FIRE AND EXPLOSION DATA

FLASH POINT Non-flammable	FLAMMABLE LIMITS	LEL	UEL
EXTINGUISHING MEDIA N/A			
SPECIAL FIREFIGHTING PROCEDURES None			
UNUSUAL FIRE OR EXPLOSION HAZARDS None			

IV - HEALTH HAZARD INFORMATION

HAZARD BY ROUTES OF EXPOSURE (Indicate chronic or acute)
INHALATION excessive exposure to high concentrations of airborne asbestos fiber which may be released by high-speed cutting or abrading, can cause chronic pulmonary disease and cancer
INGESTION Based on current studies there is no established relationship between gastro-intestinal diseases and the ingestion of the quantities of asbestos fiber found in environmental and current occupational situations.
EYE As with any dust, excessive exposures can cause transient irritation.
SKIN CONTACT None Known
SKIN ABSORPTION None
SIGNS AND SYMPTOMS ASSOCIATED WITH EXPOSURE OVER TLV None

There are no acute signs or symptoms associated with asbestos. The diseases associated with overexposure are chronic, generally taking from 10 to 20 years to become apparent.

V - HEALTH HAZARD INFORMATION (continued)

FIRST AID

INHALATION

Leave contaminated area and do not smoke.

INGESTION

N/A

EYE CONTACT

Flush with copious quantities of water.

SKIN CONTACT

Wash or shower after work.

SKIN ABSORPTION

N/A

VI - CONDITIONS FOR SAFE USE (when over TLV)

RESPIRATORY PROTECTION

Use respirators approved for protection against pneumoconiosis-producing dust.

EYE PROTECTION

Goggles are recommended when using power cutting tools.

PROTECTIVE GLOVES

Not normally required.

OTHER PROTECTIVE CLOTHING/EQUIPMENT

Use special clothing as required by OSHA Standard or Exposure to Asbestos Dust 29 CFR 1910.1001(d).

VENTILATION REQUIREMENTS: Control with mechanical dust collection equipment to within TLV. [See American National Standards Institute booklet, Z9.2 - 1971.]

VII - REACTIVITY DATA

IS MATERIAL STABLE?

YES

WILL HAZARDOUS POLYMERIZATION OCCUR?

NO

INCOMPATIBILITY

N/A

CONDITIONS TO AVOID

N/A

HAZARDOUS DECOMPOSITION PRODUCTS

NONE

VIII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED: Remove dust from slow cutting with vacuum cleaner, or wet down the dust and remove by sweeping. If high-speed cutting or abrasion has been used, wear approved respiratory equipment.

WASTE DISPOSAL METHOD

Use plastic or other impermeable bags.

LABELING REQUIRED?

No.

DOT REGULATED?

DOT NUMBER

RCRA REGULATED?

No.

RCRA NUMBER

IX - SPECIAL PRECAUTIONS

SPECIAL PRECAUTIONS FOR HANDLING AND STORAGE

OTHER PRECAUTIONS

Smoking greatly increases the chance for asbestos-related lung disease. If you work with asbestos, DO NOT SMOKE.

PREPARED BY

WILLIAM ALDRIDGE

DATE

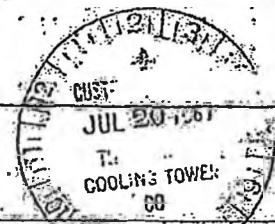
15 JULY 83

TITLE

PRESIDENT

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, THE MANUFACTURER TAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

Ref. CBF / 8-24-85 DB PRODUCT IDENTIFICATION		ATI CODE ABM-84		COMPANY ATLAS BUILDING MATERIALS A Division of ATLAS TURNER INC 5600 Hochelaga MONTREAL H1N 1W1	
TRADE NAME		GENERIC NAME Asbestos Cement Board			
CHEMICAL FORMULA C3S-7C23-3C 3A-2C 4AF		ISSUED DATE 10.11.84		REVISED DATE 10.11.84	
INGREDIENTS					
MATERIAL OR COMPONENT		C.A.S. #		WT %	
CHRYSTOLE ASBESTOS FIBER		1332-21-4		13.4	
PORTLAND CEMENT		65997-15-1		86.6	
				PERMISSIBLE AIR CONCENTRATION 0.2F/CC	
2. PHYSICAL DATA					
BOILING POINT NOT APPLICABLE			SPECIFIC GRAVITY 1.52		
SOLUBILITY IN WATER SOLID SHEET - GREY COLOUR - NO ODOR			PERCENT VOLATILE		
APPEARANCE AND ODOR					
3. FIRE AND EXPLOSION DATA					
FLASH POINT NON FLAMMABLE			EXTINGUISHING MEDIA N/A		
SPECIAL FIREFIGHTING PROCEDURES NONE			UNUSUAL FIRE OR EXPLOSION HAZARDS NONE		
4. HEALTH HAZARD INFORMATION					
INHALATION IF FIRST AID IS REQUIRED FOR INHALATION. SHOULD CHRONIC EXPOSURE DEVELOP, CONSULT A PHYSICIAN. AVOID INHALATION OF TOBACCO SMOKE.					
GESTION THERE IS NO EVIDENCE OF HEALTH RISK FROM SWALLOWING ASBESTOS FIBERS.					
IN ABSORPTION DERMATITIS MAY RESULT FROM EXPOSURE TO CEMENT DUST.			SKIN CONTACT PRACTICE GOOD HOUSE-KEEPING PROCEDURES AND WASH THOROUGHLY.		
5. CONDITIONS FOR SAFE USE					
RESPIRATORY PROTECTION A NIOSH/MSHA APPROVED RESPIRATOR IS REQUIRED WHEN THE PERMISSIBLE EXPOSURE LEVEL IS EXCEEDED.					
EYE PROTECTION - SAFETY GLASSES ARE RECOMMENDED SHOULD THERE BE A POSSIBILITY OF GETTING DUST PARTICLES IN THE EYES.					
PROTECTIVE GLOVES - NOT NORMALLY REQUIRED.					
OTHER PROTECTIVE CLOTHING/EQUIPMENT - FOLLOW OSHA STANDARDS 29 CFR 1910-1001(d) WHEN CEILING EXPOSURE LEVEL IS EXCEEDED.					
VENTILATION REQUIREMENTS - CONTROL WITH MECHANICAL DUST COLLECTION EQUIPMENT (SEE AMERICAN NATIONAL STANDARDS INSTITUTE BOOKLET Z9-Z-1971)					
PRECAUTIONS TO BE TAKEN IF MATERIAL IS BROKEN OR CRUSHED - WET DOWN BEFORE HANDLING & BAGGING. DISPOSAL BY COMPLYING WITH FEDERAL, STATE & LOCAL DISPOSAL OR DISCHARGE LAWS.					



PRECAUTIONS FOR HANDLING & STORAGE

SHOULD BE STORED ANYWHERE - WILL NOT RELEASE FIBERS INTO THE ENVIRONMENT.

OTHER PRECAUTIONS WHEN CUTTING AC SHEETS IT IS RECOMMENDED TO USE CIRCULAR SAWS WITH A SLOW RPM & EQUIPPED WITH A FILTER SUCTION SYSTEM.

ADDITIONAL INFORMATION

PREPARED BY

JACK COOMBS-PAYAC

DATE

22-1-85

TITLE

DIRECTOR OF HEALTH
HEALTH - INDUSTRY & ENVIRONMENT

THIS MATERIAL SAFETY DATA SHEET IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION. WHILE THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE BELIEVED TO BE ACCURATE AS OF THE DATE HEREOF, THE MANUFACTURER MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

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