

MATERIAL SAFETY DATA SHEET

MC-X-01046

MSDS NUMBER

4339

PRODUCT IDENTIFICATION

TRADE NAME MARIMET	GENERIC NAME Calcium silicate/asbestos board
MANUFACTURER'S NAME Manville Products Corporation	CAS NUMBER
ADDRESS (STREET) P. O. Box 5108	PHONE NUMBER 303/978-3120
CITY Denver	STATE Colorado
ZIP 80217	CHEMICAL STRUCTURE

I • PRODUCT INGREDIENTS

MATERIAL	CAS NUMBER	%	TLV
Amosite asbestos fiber (encapsulated)	1332-21-4	40	2 f/cc
Calcium Silicate		60	5 mg/m ³
			respirable dust
Cutting, drilling or otherwise abraiding this product will release asbestos fiber -- see health hazard information below.			

II • PHYSICAL DATA

BOILING POINT NA	SPECIFIC GRAVITY 0.6
SOLUBILITY IN WATER Negligible	PERCENT VOLATILE
APPEARANCE AND ODOR Solid brownish sheet - no odor	

III • FIRE AND EXPLOSION DATA

FLASH POINT Nonflammable	FLAMMABLE LIMITS	LEL	UEL
EXTINGUISHING MEDIA NA			
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 can cause chronic pulmonary disease and cancer. Product is a known human carcinogen.

INGESTION Based on current studies, there is no established relationship between gastrointestinal 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

Fibers can become imbedded in skin and in some cases result in asbestos "cor"

SKIN ABSORPTION

None

SIGNS AND SYMPTOMS ASSOCIATED WITH EXPOSURE OVER TLV

There are no acute signs or symptoms associated with asbestos. The di

associated with overexposure are chronic, generally taking from 10

years to become apparent.

HEALTH HAZARD INFORMATION CONTINUED

V • HEALTH HAZARD INFORMATION (Continued)

FIRST AID

INHALATION

Remove to fresh air. Avoid inhalation of tobacco smoke.

INGESTION

N/A

EYE CONTACT

Flush with copious quantities of water.

SKIN CONTACT

Wash or shower thoroughly using soap and warm water.

SKIN ABSORPTION

N/A

VI • CONDITIONS FOR SAFE USE (When over TLV)

RESPIRATORY PROTECTION

Use respirators approved for protection against pneumoconiosis-producing dusts

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 for 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

No

VIII • SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED Vacuum clean spillage and dust created during fabrication. If sweeping is necessary, wet down spillage.

Use approved respiratory equipment when required.

WASTE DISPOSAL METHOD

LABELING REQUIRED?

No

DOT REGULATED?

DOT NUMBER

RCRA REGULATED?

RCRA NUMBER

IX • SPECIAL PRECAUTIONS

SPECIAL PRECAUTIONS FOR HANDLING AND STORAGE

Store flat.

OTHER PRECAUTIONS

Smoking greatly increases the chance for asbestos-related lung disease.

If you work with asbestos, DO NOT SMOKE.

PREPARED BY

Kenneth A. Roberts

DATE

5/4/83

TITLE

Mgr., Environmental Services

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.

MATERIAL SAFETY DATA SHEET

MC-X-01046

MSDS NUMBER

IP 0960

PRODUCT IDENTIFICATION

TRADE NAME ASBESTOS EBONY		GENERIC NAME Asphalt saturated asbestos cement sheet	
MANUFACTURER'S NAME Manville Products Corporation		CAS NUMBER	
ADDRESS (STREET) P. O. Box 5108		PHONE NUMBER (303) 978-3120	
CITY Denver	STATE Colorado	ZIP 80217	CHEMICAL STRUCTURE

I . PRODUCT INGREDIENTS

MATERIAL	CAS NUMBER	%	TLV
Chrysotile asbestos fiber (encapsulated)	1332-21-4	35	2 f/cc
Portland cement	65997-15-1	20	
Asphalt	8052-42-4	45	
Cutting, drilling, or otherwise abraiding this product will release asbestos fiber -- see health hazard information below.			

II . PHYSICAL DATA

BOILING POINT N/A	SPECIFIC GRAVITY 1.8
SOLUBILITY IN WATER Negligible	PERCENT VOLATILE
APPEARANCE AND ODOR Dark brown sheet - slight asphaltic odor.	

III . FIRE AND EXPLOSION DATA

FLASH POINT Nonflammable	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 or airborne asbestos fiber can cause chronic pulmonary disease and cancer. Product is a known human carcinogen.

INGESTION Based on current studies, there is no established relationship between gastrointestinal 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 Fibers can become imbedded in skin and in some cases result in asbestos "corns."

SKIN ABSORPTION None

SIGNS AND SYMPTOMS ASSOCIATED WITH EXPOSURE OVER TLV
There are no acute signs or symptoms associated with asbestos. The disease associated with overexposure are chronic, generally taking from 10 to 40 years to become apparent.

HEALTH HAZARD INFORMATION CONTINUED ON BACK

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	See Section II
EFFECTS OF OVEREXPOSURE	Overexposure to excessive concentrations of asbestos fiber may cause pulmonary disease.
EMERGENCY AND FIRST AID PROCEDURES	Avoid breathing excessive dust when cutting, drilling & sanding.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Vacuum clean loose dust and chips. If sweeping is necessary, use dust suppressant.
WASTE DISPOSAL METHOD	Comply with all applicable local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		
NIOSH approved for protection against pneumoconiosis-producing dusts.		
VENTILATION	LOCAL EXHAUST Control dust generated by fabricating operations to within TLV by use of mechanical	SPECIAL
	MECHANICAL (General)	OTHER exhaust ventilation systems.
PROTECTIVE GLOVES	EYE PROTECTION Recommended during fabricating operations	
OTHER PROTECTIVE EQUIPMENT		

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Maintain good housekeeping practices. Vacuum clean or wet down waste when cleaning.
OTHER PRECAUTIONS	

MATERIAL SAFETY DATA SHEET

MC-X-01015

MSOS NUMBER

IP 1030/CP 4230

PRODUCT IDENTIFICATION

TRADE NAME
Flat TRANSITE

GENERIC NAME
Asbestos Cement Board

MANUFACTURER'S NAME
Manville Products Corporation

CAS NUMBER

ADDRESS (STREET)
P. O. Box 5108

PHONE NUMBER
(303) 978-3120

CITY
Denver

STATE
Colorado

ZIP
80217

CHEMICAL STRUCTURE

I. PRODUCT INGREDIENTS

MATERIAL	CAS NUMBER	%	TLV
Chrysotile asbestos fiber (encapsulated)	1332-21-4	40	12 f/cc
Portland cement	65997-15-1	60	
Cutting, drilling, or otherwise abraiding this product will release asbestos fiber -- see health hazard information below.			

II. PHYSICAL DATA

BOILING POINT
N/A

SPECIFIC GRAVITY
1.6

SOLUBILITY IN WATER
Negligible

PERCENT VOLATILE

APPEARANCE AND ODOR
Solid gray sheet - no odor

III. FIRE AND EXPLOSION DATA

FLASH POINT
Nonflammable

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 can cause chronic pulmonary disease and cancer. Product is a known human carcinogen.

INGESTION Based on current studies there is no established relationship between gastrointestinal 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 Fibers can become imbedded in skin and in some cases result in asbestos "corns."

SKIN ABSORPTION
None

SIGNS AND SYMPTOMS ASSOCIATED WITH EXPOSURE OVER TLV
There are no acute signs or symptoms associated with asbestos. The disease associated with overexposure are chronic, generally taking from 10 to 40 years to become apparent.

HEALTH HAZARD INFORMATION CONTINUED ON BACK

V • HEALTH HAZARD INFORMATION (Continued)

FIRST AID

INHALATION

Remove to fresh air. Avoid inhalation of tobacco smoke.

INGESTION

N

EYE CONTACT

Flush with copious quantities of water.

SKIN CONTACT

Wash or shower thoroughly using soap and warm water.

SKIN ABSORPTION

N/A

VI • CONDITIONS FOR SAFE USE (When over TLV)

RESPIRATORY PROTECTION

Use respirators approved for protection against pneumoconiosis-producing dusts

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 for 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

HAZ DUS DECOMPOSITION PRODUCTS

None

VIII • SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED Vacuum clean spillage and dust created during fabrication. If sweeping is necessary, wet down spillage.

Use approved respiratory equipment when required.

WASTE DISPOSAL METHOD

LABELING REQUIRED?

No

DOT REGULATED?

DOT NUMBER

RCRA REGULATED?

RCRA NUMBER

IX • SPECIAL PRECAUTIONS

SPECIAL PRECAUTIONS FOR HANDLING AND STORAGE

Store flat.

OTHER PRECAUTIONS

Smoking greatly increases the chance for asbestos-related lung disease.

If you work with asbestos, DO NOT SMOKE.

REPORTED BY

Ker. ch A. Roberts

DATE

5/4/83

TITLE

Mgr., Environmental Services

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.

MATERIAL SAFETY DATA SHEET

MC-X-0115

MSDS NUMBER

IP 1030/CP.4230

REV 1

PRODUCT IDENTIFICATION

S/C 15301A

TRADE NAME Flat TRANSITE		GENERIC NAME Asbestos Cement Board	
MANUFACTURER'S NAME Manville Products Corporation		CAS NUMBER SECTION IX	
ADDRESS (STREET) P. O. Box 5108		PHONE NUMBER (303) 978-3120	
CITY Denver	STATE Colorado	ZIP 80217	CHEMICAL STRUCTURE

I • PRODUCT INGREDIENTS

MATERIAL	CAS NUMBER	%	TLV
Chrysotile asbestos fiber (encapsulated)	1332-21-4	40	12 f/cc
Portland cement	65997-15-1	60	
Cutting, drilling, or otherwise abraiding this product will release asbestos fiber -- see health hazard information below.			

II • PHYSICAL DATA

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

III • FIRE AND EXPLOSION DATA

FLASH POINT Nonflammable	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 can cause chronic pulmonary disease and cancer. Product is a known human carcinogen.

INGESTION Based on current studies, there is no established relationship between gastrointestinal 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 Fibers can become imbedded in skin and in some cases result in asbestos "corns."

SKIN ABSORPTION None

SIGNS AND SYMPTOMS ASSOCIATED WITH EXPOSURE OVER TLV There are no acute signs or symptoms associated with asbestos. The disease associated with overexposure are chronic, generally taking from 10 to 40 years to become apparent.

HEALTH HAZARD INFORMATION CONTINUED ON BACK

V • HEALTH HAZARD INFORMATION (Continued)

FIRST AID

INHALATION

Remove to fresh air. Avoid inhalation of tobacco smoke.

IF INGESTION

NA

EYE CONTACT

Flush with copious quantities of water.

SKIN CONTACT

Wash or shower thoroughly using soap and warm water.

SKIN ABSORPTION

NA

VI • CONDITIONS FOR SAFE USE (When over TLV)

RESPIRATORY PROTECTION

Use respirators approved for protection against pneumoconiosis-producing dusts.

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 for 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

NA

CONDITIONS TO AVOID

NA

HAZARDOUS DECOMPOSITION PRODUCTS

None

VIII • SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED Vacuum clean spillage and dust created during fabrication. If sweeping is necessary, wet down spillage.

Use approved respiratory equipment when required.

WASTE DISPOSAL METHOD

LABELING REQUIRED?

No

DOT REGULATED?

DOT NUMBER

RCRA REGULATED?

RCRA NUMBER

IX • SPECIAL PRECAUTIONS

SPECIAL PRECAUTIONS FOR HANDLING AND STORAGE

Store flat.

OTHER PRECAUTIONS

Smoking greatly increases the chance for asbestos-related lung disease.

If you work with asbestos, DO NOT SMOKE.

PREPARED BY

nneth A. Roberts

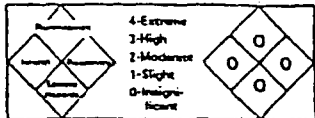
DATE

8/27/84

TITLE

Mgr., Environmental Services

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.



NFPA FIRE HAZARD SYMBOL
See NFPA 704 for detailed explanation.

MATERIAL SAFETY DATA SHEET

No.: C960 Rev. No.: 1
Date Prepared: 06/24/85

Manville

RECEIVED
OCT 15 1985

RED SEAL ELECT

I. PRODUCT IDENTIFICATION

Trade Name(s): ASBESTOS EBONY
Generic Name: ASBESTOS CEMENT BOARD
Chemical Name: MIXTURE

CAS #: NONE ASSIGNED
Formula: MIXTURE

Manufacturer: MANVILLE PRODUCTS CORP.
Address: P.O. BOX 5108
City: DENVER

State: CO Zip: 80217

Telephone: (303) 978-3120
Emergency:

II. PRODUCT INGREDIENTS

INGREDIENT NAME	CAS NUMBER	%	PERMISSIBLE EXPOSURE LIMIT
CHRYCOTILE ASBESTOS FIBER	1332-21-4	35	2F/CC
PORTLAND CEMENT	65997-15-1	20	
ASPHALT	8052-42-4	45	

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

III. PHYSICAL DATA

Appearance and Odor: DARK BROWN TO BLACK SHEET - SLIGHT ASPHALTIC ODOR.

Boiling Point: NA
Vapor Pressure: NA
Water Solubility (%): NIL
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 PRODUCT IS CONSIDERED A KNOWN HUMAN CARCINOGEN BY NTP, IARC AND OSHA.

Medical conditions which may be aggravated: PRE-EXISTING UPPER RESPIRATORY AND LUNG DISEASES 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 OVEREXPOSURES 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 FIBERS 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 IRRITATION.

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 DUSTS CREATED DURING FABRICATION. IF SWEEPING IS NECESSARY WET DOWN DUSTS. USE RESPIRATORY PROTECTION AS REQUIRED.

Waste Management: DUSTS OR SCRAPS 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: GOGGLES OR SAFETY GLASSES ARE 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 DUSTS.

Ventilation: CONTROL WITH MECHANICAL DUST COLLECTION EQUIPMENT TO WITHIN PEL/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

Special Workplace Engineering Controls: USE DUST COLLECTION SYSTEM WHENEVER POSSIBILITY OF CREATING ASBESTOS DUST EXISTS.

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

Prepared/Revised by: KENNETH A. ROBERTS

Title: MGR., ENVIRONMENTAL SERVICES

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 laws. However, no warranty or representation with respect to such information is intended or given.

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form OSHA-20
Rev. May 77

MATERIAL SAFETY DATA SHEET

S/C 15303A Ser 1

SECTION I

Ajax Magnethermic Corporation
1745 Overland Avenue, N.E.
Warren, OH 44482

EMERGENCY TELEPHONE NO.
M-1 303/979-1000 Ext. 3119

CHEMICAL NAME AND SYNONYMS

Asbestos Board

TRADE NAME AND SYNONYMS

MILLBOARD 106

CHEMICAL FAMILY

FORMULA

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES

Chrysotile asbestos fiber	70	*
Calcium Oxide	5	mg/m ³
Sodium Silicate	5	-

*For TLV, see attached Federal Register of 6/7/72

SECTION III - PHYSICAL DATA

MELTING POINT (°F)		SPECIFIC GRAVITY (H ₂ O = 1)	1.9
VAPOR PRESSURE (mm Hg)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR = 1)		EVAPORATION RATE (H ₂ O = 1)	
SOLUBILITY IN WATER	Slight		
APPEARANCE AND ODOR	Gray solid board - no odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	NA	FLAMMABLE LIMITS	Let	Uel
EXTINGUISHING MEDIA	NA			
SPECIAL FIRE FIGHTING PROCEDURES				
UNUSUAL FIRE AND EXPLOSION HAZARDS				

SECTION V - HEALTH HAZARD DATA

See Section II

Overexposure to excessive concentrations of asbestos fiber may cause pulmonary disease.

Avoid breathing excessive dust when cutting, drilling and machining.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled:
Vacuum or wet down waste when cleaning.

Comply with 40 CFR Chapter 1, Part 61

SECTION VIII - SPECIAL PROTECTION INFORMATION

NIOSH approved for protection against pneumoconiosis-producing dusts.	
CONTROL METHOD	by fabricating operations to within TLV by use of mechanical exhaust ventilation systems.
PROTECTIVE CLOTHING	MECHANICAL Exhaust
EYE PROTECTION	

SECTION IX - SPECIAL PRECAUTIONS

Maintain good housekeeping practices.

See caution label.

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

2/27/80

15300A02

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health AdministrationForm Approved
OMB No. 44-R1331

MATERIAL SAFETY DATA SHEET

SECTION I

Ajax Magnethermic Corporation
1745 Overland Avenue, N.E.
Warren, OH 44482

M-1

EMERGENCY TELEPHONE NO.

303/979-1000 Ext. 3119

CHEMICAL NAME AND SYNONYMS

Chrysotile Asbestos Fiber

TRADE NAME AND SYNONYMS

Commercial Grade Asbestos Paper

CHEMICAL FAMILY

FORMULA

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Chrysotile Asbestos Fiber				Approx. 95	*
*For TLV see attached Federal Register of 6/7/72					

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H ₂ O = 1)	2.6
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR = 1)		EVAPORATION RATE (_____ %)	
SOLUBILITY IN WATER			
APPEARANCE AND ODOR Solid material - no odor			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	NA	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	Non-flammable			
SPECIAL FIRE FIGHTING PROCEDURES				
UNUSUAL FIRE AND EXPLOSION HAZARDS				

RECEIVED

-2-

SECTION V - HEALTH HAZARD DATA	
See Section II	
EFFECTS OF OVEREXPOSURE Overexposure to excessive concentrations of asbestos fiber may cause pulmonary disease.	
EMERGENCY AND FIRST AID PROCEDURES	

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) None			
HAZARDOUS DECOMPOSITION PRODUCTS None			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Recommend the use of vacuum cleaning to remove scrap and chips generated by fabricating operations.	
WASTE DISPOSAL METHOD Comply with 40 CFR Chapter 1, Part 61	

SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type) NIOSH approved for protection against pneumoconiosis-producing dusts			
VENTILATION	LOCAL EXHAUST	Recommended at mechanical fabricating operations	SPECIAL
	MECHANICAL (General)		OTHER
PROTECTIVE CLOVES		EYE PROTECTION	
OTHER PROTECTIVE EQUIPMENT			

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Maintain good housekeeping practices.	
OTHER PRECAUTIONS	

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-11187

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME Nicolet, Inc.		EMERGENCY TELEPHONE NO. 215-646-4000
ADDRESS (Number, Street, City, State, and ZIP Code) Wissanickon Ave., Ambler, Pa. 19002		
CHEMICAL NAME AND SYNONYMS		TRADE NAME AND SYNONYMS Asbestos-Cement Board (Monobestos, Ebony, KolorMate, Resistal)
CHEMICAL FAMILY	FORMULA	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS			50% - CHRYSOTILE ASBESTOS - APPROXIMATELY		
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Chrysotile Asbestos					
TWA Limitation - 2 fibers/cc					
Ceiling Limitation - 10 fibers/cc					
Definition of fiber: Greater than 5 microns in length, where the length is at least 3 times the width.					

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O=1)	1.67-1.97
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT. VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ = 1)	
SOLUBILITY IN WATER	N/A		
APPEARANCE AND ODOR Hard smooth cement boards in various colors. No odor.			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Let	Uel
EXTINGUISHING MEDIA			
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	See section II.
EFFECTS OF OVEREXPOSURE Overexposure over a period of years to the dust of this product produced by sanding, drilling, or sawing can increase the risk of developing asbestosis, lung cancer, and mesothelioma. Cigarette smoking is an attributing factor.	
EMERGENCY AND FIRST AID PROCEDURES	

SECTION VI - REACTIVITY DATA N/A			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE		
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR		

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	
WASTE DISPOSAL METHOD Asbestos waste must be collected and disposed of in sealed, impermeable bags or other closed, impermeable containers and labelled as specified in Section 1910.1001 (g)(2)(ii) of the OSH Act.	

SECTION VIII - SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Specify type) Respirator for pneumoconiosis producing dusts approved by U.S. Bureau of Mines or NIOSH.		
VENTILATION	LOCAL EXHAUST By ANSI Z9.2 - 1971 if dust is being created.	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES		EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT Whole body clothing, head coverings, gloves, and foot coverings for employees exposed to concentrations above ceiling limit.		

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING If dust is being created during processing (curing, drilling, etc.) install local exhaust ventilation system and enforce respirator use.	
OTHER PRECAUTIONS Use wet methods whenever practicable and always when sweeping dust.	

15370 C00

MATERIAL SAFETY DATA SHEET

Effective Date: 2-1-84

SECTION I

Ajax Magnethermic Corporation
1745 Overland Avenue, N.E.
Warren, OH 44482

R-1

Emergency Telephone No.
803/744-6261

Chemical Name and Synonyms

Trade Name and Synonyms

10P225 AAA

Product Type

Asbestos Textile

SECTION II - HAZARDOUS INGREDIENTS

Paints, Preservatives, & Solvents	%	TLV (Units)	Alloys and Metallic Coatings	%	TLV (Units)
Pigments			Base Metal		
Catalyst			Alloys		
Vehicle			Metallic Coatings		
Solvents			Filler Metal		
Additives			Plus Coating or Core Flux		
Others			Others		
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES			%	TLV	
Fibrous asbestos			85-92	2f/cc	
Rayon			1-5	NL	
Polyacrylic resin			1-5	NL	

SECTION III - PHYSICAL DATA

Boiling Point (°F.)	N/A	Specific Gravity (H ₂ O = 1)	> 1
Vapor Pressure (mm. Hg.)	N/A	Percent, Volatile By Volume (%)	N/A
Vapor Density (Air = 1)	N/A	Evaporating Rate (= 1)	N/A
Solubility in Water	Negligible		
Appearance and Odor			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	N/A	Flammable Limits	Le	Uel
Extinguishing Media		N/A		
Special Fire Fighting Procedures				
Unusual Fire and Explosion Hazards				

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value See Section II
 Effects of Overexposure If excessive dust is generated, could cause asbestosis and/or cancer.
 Emergency and First Aid Procedures N/A

SECTION VI - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	

Incompatibility (Materials to avoid)
 Hazardous Decomposition Products
 Hazardous May Occur Conditions to Avoid
 Polymerization Will Not Occur X

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled If dust is generated, wet sweep or vacuum.

Waste Disposal Method Dispose of in accordance with 29CFR 1910.1001.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type) If dusty, NIOSH-approved respiration for asbestos.

Ventilation	Local Exhaust	Depends on Usage	Special
	Mechanical (General)		Other

Protective Gloves Eye Protection
 Other Protective Equipment Depends on usage.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing Special labels may be required. See 29 CFR 1910.1001.

Other Precautions Avoid creating dust.

SEC. IV

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form OSHA-208
OHS 101-44-81387

MATERIAL SAFETY DATA SHEET

Required under USOL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME Contact the Rockbestos Company
should additional information be needed.

EMERGENCY TELEPHONE NO.
203 772-2250

ADDRESS (Number, Street, City, State, and ZIP Code)

CHEMICAL NAME AND SYNONYMS
HYDRATED MAGNESIUM SILICATE

TRADE NAME AND SYNONYMS
Asbestos Products

CHEMICAL FAMILY
CHRYSOTILE ASBESTOS

FORMULA
3MgO, 5SiO₂, 2H₂O

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES & SOLVENTS	%	TLV (mg/m ³)	ALLOYS AND METALLIC COATINGS	%	TLV (mg/m ³)
MONOMERS NOT APPLICABLE		NA	BASE METAL		NA
CATALYST		NA	ALLOYS		NA
VEHICLE		NA	METALLIC COATINGS		NA
SOLVENTS		NA	FILLER METAL PLUS COATING OR CORE FLUX		NA
ADDITIVES		NA	OTHERS		NA
OTHERS		NA			
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (mg/m ³)
NONE					

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	NA	SPECIFIC GRAVITY (D ₄ /D ₂₀)	2.4-2.6
VAPOR PRESSURE (mm Hg.)	NA	PERCENT VOLATILE BY VOLUME (%)	NA
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (_____ = 1)	NA
SOLUBILITY IN WATER	INSOLUBLE		
APPEARANCE AND ODOR	WHITE TO GREY - NO ODOR		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (INDICATE TYPE)	NA	FLAMMABLE LIMITS	LS : US
EXTINGUISHING MEDIA	INCOMBUSTIBLE		
SPECIAL FIRE FIGHTING PROCEDURES	INCOMBUSTIBLE		
USUAL FIRE AND EXPLOSION HAZARDS	NONE		

SECTION V - HEALTH HAZARD DATA (OSHA 1910.1001)

THRESHOLD LIMIT VALUE

AIR TIME Weighted Average = 2.0 fibers /cc (5µm /cc, ceiling = 10 f/cc (5µm))

EFFECTS OF OVEREXPOSURE

Increased risk of asbestosis & mesothelioma; also among smokers - increased risk of lung cancer.

EMERGENCY AND FIRST AID PROCEDURES

Does not apply; however, if regular asbestos exposure is to be part of a worker's duties: (1) Encourage workers to stop smoking. (2) Annual pre- & post-employment X-Ray & Pulmonary Testing required. (3) Remove worker from asbestos contact if medical exam indicates initial signs of asbestos related problems

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Hazardous to mix)			
None			
HAZARDOUS DECOMPOSITION PRODUCTS			
None			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Cleanup of spilled material should be performed by either wetting with water or vacuuming with equipment utilizing high efficiency filtration.

WASTE DISPOSAL METHOD

Put waste in sealed impermeable bags or containers, and dispose in landfill approved for asbestos waste disposal (OSHA 1910.1001 (h)(2) & EPA 61.75)

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (OSHA 1910.134) SEE ATTACHED COPY OF OSHA REQUIREMENTS

VENTILATION	LOCAL EXHAUST	SPECIAL
	Capture dust at source; enclose source and put enclosure under negative pressure.	OTHER

PROTECTIVE GLOVES

SEE SECTION IX

EYE PROTECTION

NA

OTHER PROTECTIVE EQUIPMENT

Whole body clothing required when ceiling concentration exceeded

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store and maintain product in a manner that dust will not be generated.

OTHER PRECAUTIONS

Disposable coveralls, hat, & gloves recommended when working for prolonged time with asbestos materials.