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MATERIAL SAFETY DATA SHEET

PREPARED BY: Dr. E.E. Wang

DATE: 1-30-87

SECTION I

Manufacturer's Name, Address, and Phone Number

J-M A/C PIPE CORPORATION

1051 Sperry Road, Stockton, CA 95206

(209) 982-1500

Product Trade Name and Synonyms

TRANSITE Pipe

Chemical Name and Synonyms

Asbestos-Cement Pipe

Chemical Family	Formula
Mineral	N/A

SECTION II: INGREDIENTS

Substance	CAS #	WT. %
Asbestos (Chrysotile) ✱ 8	12001-29-5	11
Asbestos (Crocidolite) ✱ 10	1332-21-4	4
Silica (Crystalline)	14808-60-7	35
Portland Cement	None	50

SECTION III: OCCUPATIONAL EXPOSURE LIMITS

Substance	OSHA's PEL	ACGIH's TLV	Listed as Carcinogen
Asbestos (Chrysotile)	0.2 f/cc	2f/cc	Yes
Asbestos (Crocidolite)	0.2f/cc	0.2f/cc	Yes
Silica (Crystalline) (10* or 30** mg/M^3) / (%SiO_2+2)	Same as PEL		No
Portland Cement	50 mppcf	5* or 10**mg/M^3	No

*As respirable dust; **As total dust

*** Asbestos fibers measured are those longer than 5 micrometers.

Note: PEL and TLV refer to 8-hr. time weighted average

SECTION IV: PHYSICAL DATA

Boiling Point (°F)	N/A	Specific Gravity (H_2O=1)	1.85
Vapor Pressure (mm Hg)	N/A	Percent, Volatile by Volume (%)	N/A
Vapor Density (Air = 1)	N/A	Evaporation Rate (=1)	N/A
Solubility in Water	N/A		

Appearance and Odor: Gravish-white pipe; odorless

SECTION V: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	N/A	Flammable Limits	Lel / Uel
			N/A / N/A

Extinguishing Media: N/A

Special Fire Fighting Procedures: N/A

Unusual Fire and Explosion Hazards: None

SECTION VI: REACTIVITY DATA

Stability		Conditions to Avoid
Stable	Unstable	Power driven saws with abrasive discs should NOT be used for dry cutting or beveling asbestos-cement pipe. Always avoid creating and breathing dust.
X		

Incompatibility (Materials to Avoid): None

Hazardous Decomposition Products: None

Hazardous Polymerization	May Occur		Will Not Occur	X

Conditions to Avoid: N/A

SECTION VII: HEALTH HAZARD DATA (See also Section XI)

Effects of Overexposure

Inhalation of excessive crystalline silica may cause silicosis. Overexposure to airborne asbestos fibers may cause pulmonary diseases (asbestosis, mesothelioma, pleural plaques, and lung cancer). Smoking greatly increases cancer risk from asbestos exposure. The descriptions and symptoms of the above mentioned diseases are given in Section XI.

Emergency and First Aid Procedures

Inhalation: Move person to fresh air.

Eyes: Wash with water for 15 minutes.

Skin: Clean area of contact.

Ingestion: Seek medical attention if necessary.

SECTION VIII: SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled

Pipe fragments and installation debris must be handled in a manner which avoids airborne dispersion of asbestos dust. Use wet or vacuum method for clean-up.

Waste Disposal Method

Comply with all applicable local, state, and federal regulations.

SECTION IX: SPECIAL PROTECTION INFORMATION

Respiratory Protection Not required when recommended work practices are followed.

Ventilation		
	Local Exhaust N/A	Special N/A
	Mechanical N/A	Other N/A

Protective Gloves Not required	**Eye Protection** Not required

Other Protective Equipment Not required when recommended work practices are followed.

SECTION X: SPECIAL PRECAUTIONS (See also Section XII)

Precautions to be Taken in Handling and Storing

Follow "Recommended Work Practices for A/C Pipe" published by A/C Pipe Producers Association.

Other Precautions All tools which may release asbestos fibers in excess of the exposure limits shall be provided with local exhaust ventilation systems.

REMARKS This information is given without warranty, representation, inducement or license of any kind, except that it is accurate to the best of our knowledge or obtained from sources believed by us to be accurate, and we do not assume any legal responsibility for use or reliance upon same.

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SECTION XI

HEALTH HAZARDS - DESCRIPTIONS AND SYMPTOMS

SILICOSIS

A disease due to breathing air containing crystalline silica, characterized anatomically by generalized fibrotic changes and the development of miliary nodulations in both lungs.

The symptoms include gradually increasing difficulty in breathing and non-productive cough, shortness of breath, decreased chest expansion, lessened capacity for work, absence of fever, and increased susceptibility to tuberculosis.

ASBESTOSIS

This is a chronic lung disease in which the lungs become scarred as a result of the biological reaction to inhaled asbestos. Damage to the lungs is irreversible and progressively disabling.

Affected individuals experience shortness of breath on exertion. Examining physicians may note a bluish color of the lips and tongue, an alteration in the nails, and hear crackles at the base of the lungs. The chest x-ray is found to have an increase in the profusion of small irregular opacities and deterioration may be noted in tests of lung function.

Although asbestosis does not necessarily lead to lung cancer, individuals with this disease are at high risk to develop cancer.

Mesothelioma

This is a malignant tumor of the thin membranes lining the chest and abdominal cavities. It is an extremely rare cancer in the general population and is almost invariably associated with asbestos exposure. It is a rapidly progressive disease leading to death within a year or two of appearance.

The first symptom may be shortness of breath or pain in the wall of the chest aggravated by deep breathing or abdominal pain varying from vague discomfort to severe spasms.

Pleural Plaques

The pleura are the membranes lining the chest cavity. Asbestos fibers reaching this cavity may produce scarring of these membranes. This is visible in the chest x-ray as a pleural thickening. If calcium salts become deposited in these areas, then pleural plaques are produced. Pleural thickening is a common complication of pulmonary asbestosis and these x-ray signs are often used as markers of asbestos exposure.

A/C PIPE

Lung Cancer

The symptoms include a cough, or a change in the cough habit, chest pain, and occasionally blood-streaked sputum coughed up from the lungs.

The asbestos-related lung cancer occurs more frequently in the lower lobes. Initial diagnosis is by chest x-ray.

SECTION XII

PRECAUTIONS FOR HANDLING ASBESTOS-CONTAINING PIPES

(Hygienic Practices)

In case of cutting or beveling asbestos-cement pipes, all hand or power-operated tools which may produce or release asbestos fibers should be provided with local exhaust ventilation systems.

Asbestos-containing material should be handled in a wet state sufficient to prevent the emission of airborne fibers.

Workers engaged in the demolition of asbestos-containing pipes should be provided with appropriate respiratory equipment approved by the Bureau of Mines or the National Institute for Occupational Safety and Health and special clothing such as coveralls or similar whole body clothing.

Asbestos-containing waste should be collected and disposed of in sealed impermeable bags, or other closed, impermeable containers.