

MATERIAL SAFETY DATA SHEET

Document	VX MSD 010
Issued	27/03/91
Revision	Date:
5	08/09/2005

COMPANY DETAILS:

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IDENTIFICATION

Product Name: Poly(Vinyl Chloride) (PVC) Pipe, Conduit, Moulded Fittings
 Trade names: Polydex, Vinyl Iron, Supermain, Hydro, Corflo, Ultra-Rib,
 Other Names and variants: Polyvinyl chloride, Unplasticised PVC, unmodified PVC (UPVC, uPVC), modified PVC (MPVC, mPVC), Oriented PVC (OPVC, oPVC, MOPVC) pipes, conduits
 Manufacturer's Product Code: Various
 Dangerous Goods Class and Subsidiary Risk: Not classified as hazardous according to criteria of Worksafe Australia
 Hazchem Code: No Code Allocated
 Poisons Schedule Number: Not Listed
 Use: Water supply, irrigation, sewerage, drainage, gas, industrial process piping, telecommunications and electrical conduit

Physical Description/Properties

Appearance: Opaque rigid solid tubes, diameters from 15 to 400 mm, lengths up to 12 m, various colours, eg white grey, blue, yellow, green, orange, with or without jointing sockets, with or without ribbed/profiled exterior. Various fittings to match, eg. tees, bends reducers, couplings, etc
 Boiling Point/Melting Point: Softening point: >75 °C. Decomposition initiates at approximately 140 °C
 Vapour Pressure: Not Applicable
 Relative density: 1.3-1.6
 Flashpoint: Not Applicable
 Flammability Limits: Combustible, Self Extinguishing.
 Solubility in Water: Insoluble.

Ingredients:

Chemical Name:	CAS Number:	Proportion:
Poly(Vinyl Chloride) Polymer	9002-86-2	70-80 %
Fillers (eg. Calcium carbonate)	471-34-1	3-16%
Lubricants (eg. Polyethylene wax)	Not applicable	0.8-1.6%

Modifiers (eg. Chlorinated polyethylene, acrylics)		0-5%
Stabilisers (eg. stearates and sulphates of calcium zinc and lead)	Not applicable	1.6-4%
Pigments (eg. Titanium Dioxide)	13463-67-	1.2-4%

HEALTH HAZARD INFORMATION

Health Effects

General

There are no significant health hazards associated with PVC pipe products under normal conditions of use or from mechanical working or forming the product. All additives are encapsulated within the polymer matrix and should present no hazard under conditions of normal use and good occupational work practice. For pipes intended for use with potable water, extraction of metals and residual monomer is limited to safe levels by requirements of Australian Standards. Peripheral effects may arise from combustion or misuse. See section PRECAUTIONS FOR USE. No listed carcinogenic, mutagenic or teratogenic effects.

However it is recommended that PVC pipes with lead stabilisation systems not be used for the purpose of storing potable water, (eg. as may be used in campervans or mobile homes), or in systems where water is not continuously or regularly replaced (eg. hydroponic systems where water is continuously recycled). For such applications potable water pipes using calcium-zinc or other non-lead based systems may be used. Refer to our Technical Department for advice.

Acute

Swallowed

There are no known health effects for the ingestion of PVC.

Eye and Skin

Inapplicable to the solid except for mechanical injury. Dust from sawing may affect eyes if not protected. Hydrogen chloride and other fumes emitted during combustion cause irritation to the eyes and skin.

Inhaled

Inapplicable to the solid product Inhalation of combustion products, especially hydrogen chloride, causes irritation of the respiratory tract. Individuals with bronchial asthma and other chronic obstructive respiratory diseases may develop broncho-spasm if exposure is prolonged.

Chronic

Inhalation of PVC dust created by mechanical working has been reported to cause fine nodules visible on chest X-rays. Contact with heavy concentrations of gaseous combustion by-products may result in formation of permanent scar tissue.

First Aid

Swallowed

No harmful effect. No LD50 data is available for product.

Eye and Skin

No special treatment. Treat mechanical injury and dust contact by normal procedures. Gaseous combustion by-products: Irrigate with fresh water, seek medical assistance if effect persists. If molten material contacts skin and adheres, cool quickly with running water DO NOT attempt to remove. Seek medical advice.

Inhaled:

Gaseous combustion by-products: Remove from source of exposure. Seek medical advice.

First Aid Facilities:

No special requirements.

Advice to Doctor:

Treat symptomatically.

PRECAUTIONS FOR USE

Exposure Standards:	No value assigned by National Health and Medical Research Council. A limit of 10 mg/m ³ for nuisance dusts is recommended.
Engineering Controls:	Stability – stable Incompatibility – none
Personal Protection	No special protection required. Gloves are advisable when handling cut ends of pipes. May shatter if impacted under stress, particularly when cold. When working with the product, normal safety glasses are recommended, and dust mask if sawing with abrasive wheel or sanding.
Flammability:	Combustible, self-extinguishing.

SAFE HANDLING INFORMATION

Storage and Transport:	No special requirements. PVC pipe products are not considered hazardous for transportation according to Transport of Goods by Road and Rail Acts.
Handling	Injury can be sustained by rolling of pipes. Unpack crates and bundles on a flat surface, and ensure free stacks are adequately chocked. Do not climb on stacks.
Material Working:	Normal safe practices should be employed when working with the material: a well ventilated area and the use of dust masks and eye protection when cutting. When heating for bending or other forming, use hot water or air with appropriate safeguards. Use of an open flame is inadvisable (see below).
Spills and Disposal:	Spillage – not applicable. Disposal – Recycle where possible. Refer to appropriate environmental protection agency/authority. Normally suitable for disposal as general waste land fill.
Fire/Explosion Hazard:	Combustible, self-extinguishing. No explosion risk. If forced to burn will emit dense acrid fumes containing noxious and toxic compounds including carbon monoxide, carbon dioxide and hydrogen chloride. Carbon dioxide is an asphyxiant. Carbon monoxide is toxic. Hydrogen chloride is highly acidic and a severe irritant in low concentrations. All are potentially lethal in high concentrations with sustained exposure. Hydrogen chloride has a highly detectable pungent odour, and is intolerable in very low concentrations. The risk of exposure to hazardous levels for sustained periods is therefore considered low.
Fire-Fighting Procedures:	Wear fully protective body suit with self-contained breathing apparatus (S.C.B.A) to prevent contact with gases produced during combustion.
Fire Extinguishing Media:	Use water, water fog or foam to extinguish fires. Carbon Dioxide or Dry Chemical are suitable, but are not preferred, as lack of cooling capacity may result in re-ignition.
CONTACT POINT:	The Technical Manager, Technical Services Group Telephone : (02) 9604 2422 E-mail: Techman@vinidex.com.au

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Vinidex Tubemakers Pty Limited cannot anticipate or control all the conditions under which the product may be used, and it remains the responsibility of each user, prior to usage, to review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.