GHS - SAFETY DATA SHEET
PVC PIPE, CONDUIT, MOULDED FITTINGS

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifiers

Trade Names:

Polydex™, Yeloroll, Vinyl Iron™, Supermain®, Vinidex Hydro®, Corflo®, Ultra-Rib™, Vinidex Compakt®

Other names and variants: PVC pipe, conduit and moulded fittings, unplasticised PVC, unmodified PVC (UPVC, uPVC, PVC-U) modified PVC (MPVC, mPVC, PVC-M), oriented PVC (OPVC, oPVC, PVC-O)

1.2 Relevant identified uses

Pipes and fittings for water supply, irrigation, sewerage, drainage, gas, industrial process piping, telecommunications and electrical conduit.
Uses advised against: Designed for described uses only.

1.3 Details of the supplier of the safety data sheet

Company : Vinidex Pty Limited ABN 42 000 664 942
Address : Level 4, 26 College Street,
Darlinghurst, NSW 2010 Australia

Telephone Number : +61 2 8278 0501
E-mail address : info@vinidex.com.au

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Vinidex - 4-26 College St, Darlinghurst, NSW 2010
Ph: 02 8278 0500 (business hours)
Emergency Contact – 131126 Poisons Information Centre.
www.vinidex.com.au

2. HAZARDS IDENTIFICATION

2.1 GHS Classification of substance or mixture

NOT CLASSIFIED AS HAZARDOUS
according to GHS rules and to 'Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice; WorkSafe Australia

2.2 GHS Label Elements

Pictogram : NONE

Signal Word : NONE

Hazard Statement(s) : NONE

Precautionary Statement(s): NONE

2.3 Other hazards
Refer to Section 7 for general precautions for use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance/Product
Manufactured rigid solid tubes of various dimensions for plumbing and water distribution as described in Section 1.

Chemical Composition

CAS Number	Chemical Name/s	Proportion
9002-86-2	Poly(vinyl chloride) polymer	70 – 80%
471-34-1	Calcium carbonate filler	3 – 16%
	Modifiers (chlorinated PE, & Acrylics)	0 - 5%
	Stabiliser & lubricants	1.6 – 6%
13463-67-7	Titanium dioxide	1.2 – 4%

4. FIRST-AID MEASURES

4.1 Description of first aid measures

General Advice
Consult a physician for all exposures except for minor instances. Show this safety data sheet to the doctor in attendance.

If inhaled
There are no known health effects for the ingestion of PVC. Ingestion is unlikely to occur due to the physical size and dimensions of the products. However, small particles may be generated by sawing or mechanically breaking the products or similar means

In case of skin contact
Inapplicable to the solid product except for mechanical injury. Dust/small particles from sawing or other mechanical process may mechanically affect skin if not protected. There have not been reports of skin irritation arising from such dust and small particles. Hydrochloric acid and other fumes emitted during combustion can cause irritation to the skin. Flush with copious quantities of water and treat symptomatically.

In case of eye contact
Inapplicable to the solid product except for mechanical injury. Dust/small particles from sawing or other mechanical process may affect eyes if not protected. Hydrochloric acid and other fumes emitted during combustion can cause irritation to the eyes. Flush with copious quantities of water and treat symptomatically.

If swallowed
Inapplicable to the solid product due to the physical size and dimensions of the products. For inhalation of fumes and gaseous by-products in case of smouldering and fire (hydrochloric acid, carbon monoxide etc.), remove the patient immediately from exposure and seek medical advice. Rinse mouth with water provided patient is conscious. Do **not** induce vomiting. Call for medical attention.

4.2 Most important symptoms and effects, both acute and delayed
No known delayed effects. No data available

4.3 Indication of any immediate medical attention and special treatment needed
No data available.
Notes to doctor: Treat symptomatically. Material does not wet out easily in water and is not soluble in water.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing agents
Water, water-fog or foam to extinguish fire. Carbon dioxide or dry chemical are suitable but are considered not as efficient due to lack of cooling capacity.

5.2 Special hazards arising from the product or its combustion products
Combustible, self-extinguishing. Not an explosion risk. If forced to burn, it will emit dense acrid fumes containing hydrochloric acid (highly acidic and severe irritant), carbon dioxide (asphyxiant), carbon monoxide (toxic) and possibly phosgene (toxic). All are potentially lethal in sustained exposure.

5.3 Advice for firefighters
Wear fully protective body suit with self-contained breathing apparatus (S.C.B.A.) to prevent contact with fumes and gases produced during combustion.

Additional information:
Avoid contact with strong oxidizing agents.

Hazchem Code: None allocated as material is not classified as dangerous goods.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
In case of spills, collect products and bundle or secure safely. If necessary, isolate area to prevent damage to /destruction of products by vehicles etc. Broken parts may be sharp and eye protection and gloves are recommended.
For major spills isolate area as necessary to prevent further damage. Collect products and bundle or secure safely. Evacuate non-essential personnel to safe areas.

6.2 Measures for environmental protection
Prevent further spillage if safe to do so. Products are not environmentally hazardous but could affect waterways due to size and by causing mechanical blockage. Do not allow product parts to enter sewers, surface water or ground water. Inform responsible authorities as required by local and state/national regulations.

6.3 Methods and materials for containment and cleaning up
Isolate area. Pick up mechanically and placing in suitable containers for further use or disposal as waste according to Section 13.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Check security of bundles of pipes before releasing strapping and retaining frames. Injury can be sustained by rolling of pipes.
Unpack crates and bundles on a flat surface and ensure that free stacks are adequately chocked. Do not climb on stacks.
Normal safe practices should be employed when working with the material; a well ventilated area and the use of eye and protection, dust masks and gloves are recommended when sawing, grinding (with abrasive wheel) and handling. When heating for bending or other forming, use hot water or air with appropriate safeguards. Use of an open flame is inadvisable.
Eating, drinking and smoking in work areas is prohibited.
Wash hands after handling product.

7.2 Conditions for safe storage, including any incompatibilities
Store in appropriate areas (outside or in warehouse) in accordance with site safety requirements.
Do not store with strong oxidising agents.

Storage class:
Class according to regulation on flammable liquids: not applicable

7.3 Specific end uses
Apart from the uses mentioned in 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

National Exposure Limits
Please note that there is a mandatory dust level limit of maximum 10mg/m^3 (TWA) legislated for work place environments.

8.2 Exposure Control

Appropriate engineering controls
No exposure controls are necessary as original products are inert and all additives are encapsulated within the polymer matrix and present no hazard under conditions of normal use and good occupational work practice. Handle in accordance with good industrial hygiene and safety practices. Avoid formation of dust when sawing or cutting. Avoid generation of airborne dust. Wash hands before breaks and at the end of the workday.

Personal Protective Equipment
General protective and hygienic measures:
Do not inhale dust in generated from the product. If necessary, wear appropriate respirator with P2 filter.
Wear protective clothing such as overalls and safety shoes.
Wear safety glasses and gloves for protection from mechanical injuries.

Eye protection:
Glasses are recommended in case of accidental knock when handling pipe and especially when working pipes mechanically, sawing etc.

Skin protection:
Protective gloves of strong material to protect against mechanical injury.
Protective clothing such as overalls.

Body protection:
Wear protective clothing such as overalls as well suitable safety boots or other appropriate footwear.

Respiratory protection:
Respiratory protective device with P2 filter is recommended if dust is generated.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance:
Opaque rigid solid tubes with diameters ranging from 15 mm to 400 mm with lengths up to 12 metres. Colour of pipe varies depending upon application e.g. white, grey, blue, yellow, green, and orange. The pipe can be with or without jointing sockets and with or without ribbed or profiled exterior. Products are also various fittings to match e.g. tees, bends reducers, couplings etc.

b)	Odour:	none
c)	Odour threshold:	not determined
d)	Melting point/melting range:	softens at about 75 ^{0}C
e)	Boiling point/boiling range:	not determined
f)	Flammability	will burn only in contact with a flame
g)	Auto ignition temperature:	product is not self-igniting.
h)	Decomposition temperature:	starts decomposing at about 140 ^{0}C
i)	Explosive properties:	not determined
j)	Upper/lower explosion limits:	not determined
k)	Density:	1.3 – 1.6
l)	Water solubility/miscibility:	not soluble/wettable
m)	pH:	not determined
n)	Solvent Content:	Organic solvents: 0.0%
o)	Solids Content**:**	100.0%

9.2 Other safety information

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available. Stable under normal conditions of storage and use.

10.2 Chemical Stability

Stable under recommended storage conditions; will start to decompose (smoulder, burn etc . depending on availability of oxygen/air) if heated to temperatures greater than 140 ^{0}C and maintained at elevated temperatures.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid
Product will start to decompose if maintained at temperatures of above 140 ^{o}C.
Decomposition products are hydrochloric acid, carbon dioxide, carbon monoxides and possibly phosgene**.**

10.5 Incompatible materials
No data available. As major components are organic material, contact with strong oxidizing agents should be avoided.

10.6 Hazardous decomposition products
Other decomposition products – no data available.
In the event of fire: see Section 5.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
The products are inert and insoluble and consist of a fused polymer matrix which also encapsulates all additives.

A**cute toxicity**
No data available.

Skin corrosion/irritant
No data available.

Serious eye damage / eye irritation
No data available.

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Specific target organ toxicity (STOT)-single exposure
No data available.

STOT-repeated exposure
No data available.

Aspiration hazard
No data available.

Information on the likely routes of exposure
No data available.

Symptoms related to the physical, chemical and toxicological characteristics
No data available.

Delayed and immediate effects and also chronic effects from short and long term exposure
No data available.

Numerical measures of toxicity (such as acute toxicity estimates)
No data available.

Interactive effects
No data available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available.

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other adverse effects
No adverse effects on the environment have been reported. The product can be physically removed from waterways by means appropriate to the size of the article. It is recommended that in case of larger spills local environmental agencies are notified – see also Section 13.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Recycle where possible.
Refer to state/territory environmental protection agency/ authority. Normally suitable for disposal as general waste land fill.

Contaminated packaging:
Packaging that has not/cannot be cleaned is to be disposed of in the same manner as the product.

14. TRANSPORT INFORMATION

14.1 UN
ADR/RID Not classified as dangerous goods.

14.2 UN proper shipping name Not classified as dangerous goods.

14.3 Transport hazard class(es) Not classified as dangerous goods.

14.4 Packing Group Not classified as dangerous goods.

14.5 Environmental hazards Not classified as dangerous goods.

14.6 special precautions for user Not classified as dangerous goods.

Transport/Additional information Not classified as dangerous goods.

Hazchem Code: None allocated as material is not classified as dangerous goods.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulation(s) specific for the substance or mixture
There is no safety, health or environmental regulation specific to these products.

Other regulations, limitations and prohibitive regulations: None.

16. OTHER INFORMATION

Classification system
Classification is according to GHS guidelines, ECHA chemicals' classifications and other literature and company data.

Literature references and sources for data
The following sources were used for the compilation of data for this material safety data sheet and were the current versions at the time of writing:
1. ' WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS, SAFE WORK AUSTRALIA'
2. ' PREPARATION OF SAFETY DATA SHEETS FOR HAZARDOUS CHEMICALS –CODE OF PRACTICE, SAFE WORK AUSTRALIA'
3. 'AUSTRALIAN DANGEROUS GOODS CODE'
4. UN globally harmonized system for hazardous chemicals
5. Classifications according to ECHA publication http://echa.europa.eu.

Changes from previous versions of this SDS
Not applicable, 1st issue according to GHS.

Further information
The above information is believed to be correct at the time of writing but does not purport to be all inclusive and shall be used only as a guide. This SDS summarises our best knowledge of the health and safety hazard information of the product and how to handle and use the product safely in the workplace at the date of issue. The user must review this SDS and determine how to use it in his workplace as the conditions of use are beyond the control of Vinidex. If further information or clarification is needed to ensure that an appropriate assessment is made, then the user should contact this company. Our responsibility for the product as sold is subject to our standard terms and conditions.

Department Issuing SDS: **Vinidex** Product Development. Reviewed by Engineering & Technical Services
Contact: Technical Services