Marley Pipe Systems (SA) (Pty) Ltd
Company Registration Number: 2013/170713/07
VAT Registration Number: 4540264027
www.marleypipesystems.co.za

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

1.1 - TRADE NAME: Marley Pipe Systems High Pressure PVC Solvent Cement, Clear, Medium Bodied

SECTION 2 - RISK/HAZARD IDENTIFICATION

Health		Environmental		Physical	
Acute Toxicity:	Category 4	Acute Toxicity:	None Known	Flammable Liquid	Category 2
Skin Irritation:	Category 3	Chronic Toxicity:	None Known		
Skin Sensitization:	NO				
Eye:	Category 2				

GHS LABEL: 

Signal Word:

WHMIS CLASSIFICATION: CLASS B, DIVISION 2
CLASS D, DIVISION 1B

Hazard Statements	Precautionary Statements
H225: Highly flammable liquid and vapor	P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
H319: Causes serious eye irritation	P261: Avoid breathing dust/fume/gas/mist/vapors/spray
H332: Harmful if inhaled	P280: Wear protective gloves/protective clothing/eye protection/face protection
H335: May cause respiratory irritation	P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
H336: May cause drowsiness or dizziness	P403+P233: Store in a well ventilated place. Keep container tightly closed
H351: Suspected of causing cancer	P501: Dispose of contents/container in accordance with local regulation
EUH019: May form explosive peroxides	

SECTION 3 - CHEMICAL COMPOSITION

	CAS#	CONCENTRATION	SYMBOL	R phrases	S phrases	Exposure Limit Value
Polyvinyl Chloride Resin (PVC)	NON/HAZ	15 - 40%	N/A	N/A		N/A
Tetrahydrofuran (THF)**	109-99-9	8 - 20%	F Xi	11-19-36/37	7-16-29-33	200 PPM
Methyl Ethyl Ketone (MEK)	78-93-3	25 - 40%	F Xi	11-36-66-67	2-7-9-16-51	200 PPM
Cyclohexanone	108-94-1	15 -35%	Xn	10-20	7-29	25 PPM Skin
Acetone	67-64-1	3 - 19%	F Xi	11-36-37-38	23-26-33-39	750 PPM

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing. *
Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).
# indicates that this chemical is found on Proposition 65's List of chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION 4 - FIRST AID MEASURES

Contact with eyes: Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.
Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If irritation develops, seek medical advice.
Inhalation: Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
Ingestion: Rinse mouth with water. Give 1 or 2 glasses of water or milk to dilute. Do not induce vomiting. Seek medical advice immediately.

Likely Routes of Exposure: Inhalation, Eye and Skin Contact

Acute symptoms and effects:

Inhalation: Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.
Eye Contact: Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid.
Skin Contact: Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
Ingestion: May cause nausea, vomiting, diarrhea and mental sluggishness.

Chronic (long-term) effects: Category 2 Carcinogen

SECTION 5 - FIREFIGHTING MEASURES

5.1 Suitable Extinguishing Media: -Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.
5.2 Unsuitable Extinguishing Media: -Water spray or stream.
5.3 Exposure Hazards: -Inhalation and dermal contact
5.4 Combustion Products: -Oxides of carbon, hydrogen chloride and smoke
5.5 Protection for Firefighters: -Self-contained breathing apparatus or full-face positive pressure airline masks.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: -Keep away from heat, sparks and open flame.
-Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment.
-Prevent contact with skin or eyes (see section 8).
6.2 Environmental Precautions: -Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.
6.3 Methods for Cleaning up: -Clean up with sand or other inert absorbent material. Transfer to a closable steel vessel (Metal or Polyethylene).
6.4 Materials not to be used for clean up: -Liquid(s)

SECTION 7 - STORAGE AND HANDLING

7.1 Handling: -Avoid breathing of vapor, avoid contact with eyes, skin and clothing.
-Keep away from ignition sources, use only electrically grounded handling equipment and ensure adequate ventilation/fume exhaust hoods.
-Do not eat, drink or smoke while handling.
7.2 Storage: -Store in ventilated room or shade between 5°C and 44°C (40°F-110°F) and away from direct sunlight.
-Keep away from ignition sources and incompatible materials: caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.
-Follow all precautionary information on container label, product bulletins and solvent cementing literature.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

8.1 System Design: If ventilated cabinet, enclosure or fume hood is necessary, average airflow should be at least 100 FPM (50.8cm/sec).
8.2 Monitoring: Maintain breathing zone airborne concentrations below exposure limits (see section 2).
8.3 Personal Protective Equipment (PPE):

-Eye Protection: Avoid contact with eyes, wear splash-proof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields, etc. as may be appropriate for the exposure.

-Skin Protection: Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent immersion. Use of solvent-resistant gloves or solvent-resistant barrier cream should provide adequate protection when normal adhesive application practices and procedures are used for making structural bonds.

-Breathing Protection: Prevent inhalation of the solvents. Use in a well-ventilated room. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above. With normal use, the Exposure Limit Value will not usually be reached. When limits approached, use respiratory protection equipment.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance:	Clear, medium syrupy liquid				
9.2 Odor:	Ethanol				
9.3 pH:	N.AP.				
9.4 Boiling Point:	57°C to 67°C(133°F to 151°F) based on first boiling component				
9.5 Flash Point:	-6°C to -4°C(21°F to 25°F) T.C.C.				
9.6 Auto Flammability:	321°C(609.8°F): THF				
9.7 Vapor Pressure:	143 mm Hg @ 20°C(68°F): THF				
9.8 Solubility:	Solvent portion completely soluble in water. Resin portion separates out.				
9.9 Other Data:	Vapor Density	>2 (Air=1)	Specific Gravity @ 23°C±2°	(73°F±3.6°)Typical 0.920±0.040	
	Evaporation Rate	>1.0 (BUAC=1)	Flammability Limits	LEL: 2%	
	Viscosity	Variable by product	(percent by volume)	UEL: 11.8%	

SECTION 10 - STABILITY AND REACTIVITY

10.1 Stability:	Stable under recommended storage conditions. (See Section 7)
10.2 Conditions to avoid:	Keep away from heat, sparks, open flame and other ignition sources.
Effects:	When forced to burn, this product gives out carbon monoxide, carbon dioxide, hydrogen chloride and smoke.
10.3 Materials to avoid:	Caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers.
10.4 Hazardous decomposition products:	None in normal use. See item 10.2 for reactivity/combustion effects.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Acute symptoms and effects:

Inhalation:	Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passage.
Eye contact:	Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctiva inflammation on contact with the liquid.
Skin contact	Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
Ingestion:	May cause nausea, vomiting, diarrhea and mental sluggishness.
Chronic(long-term) effects:	None known to humans.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Mobility:	In normal use, emission of volatile organic compounds (VOC's) to the air takes place. Typically at a rate of ≤ 510 Grams/Liter.. Minimal other adverse effects include possible ground water contamination from release to soil, sewers, drains or water course.
12.2 Degradability	Biodegradable
12.3 Acournulation	Minimal to none.

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Follow local and national regulations. Consult disposal expert. Can be disposed of by controlled incineration.
Excessive quantities should not be permitted to enter drains, sewers or water courses. Empty containers should be air dried before disposing.

SECTION 14 - TRANSPORT INFORMATION

14.1 UN Number:	UN1133	14.7 ADR/RID CLASSIFICATION:	
14.2 UK Road & Sea Freight (IMO) Classification:	3.2	Class:	3.5c
14.3 Substance Classification Number:		Item number:	
14.4 Class:	3	14.8 ICAO/IATA CLASSIFICATION:	
14.5 Packing Group:	II	Class:	3
14.6 Proper Shipping Name:	Adhesives	Sub-Risk:	None
PGR (if applicable)		Packing Group:	II
		Proper Shipping Name:	Adhesives

SECTION 15 - REGULATORY INFORMATION

15.1 Precautionary Label Information:	Highly Flammable, Irritant	
15.2 Symbols:	F,Xi	
15.3 Risk Phrases:	R-10 Flammable	R-36/37/38 Irritating to eyes, respiratory system and skin.
	R-11 Highly Flammable	R-65 Repeated exposure may cause skin dryness or cracking.
	R-20 Harmful by inhalation	R-67 Vapors may cause drowsiness and dizziness.
15.4 Safety Phrases:	S-2 Keep out of reach of children	S-24/25 Aviod contact with skin and eyes.
	S-7 Keep container tightly closed when not in use	S-29 Do not empty into drains,
	S-9 Keep container in a well-ventilated place.	S-33 Take precautionary measures against static discharges.
	S-16 Keep away from sources of ignition. No smoking.	S-51 Use only in well ventilated areas.

SECTION 16 - OTHER INFORMATION

16.1 Specification Information:

Department issuing data sheet:	G-Good, Research and Development Department
Contact name:	David
E-mail address:	<sales@g-good.com.cn>

16.2 Training necessary:	Yes, training in practices and procedures contained in solvent-cementing literature
16.3 Reissue date/reason for reissue:	SEP 2016 / Change format to conform with GHS requirements
16.4 Intended use of product:	Solvent cements for bonding/cementing PVC plastic pipes and fittings

16.5 This product is intended for use by skilled individual sat their own risks. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.