



### General description

Hydroseal® Canada 45 CALLIBRE CPVC CEMENT is gray, low VOC emissions extra heavy bodied, medium setting, high strength CPVC solvent cement for all classes and schedules of tube and fittings with interference fit, including Schedule 80 through 12 inch diameter. Also recommended for PVC industrial tubing systems for chemical Applications.

### Application

Hydroseal® Canada 45 CALLIBRE CPVC CEMENT is especially formulated for use on industrial tubing systems (CPVC or PVC) requiring chemical resistance to caustics, including hypochlorite solutions, mineral acids, aggressive water and aqueous salt solutions. Approved for use with Corzan™ Industrial Tubing Systems.

Detailed directions on making solvent cemented joints are printed on the container label. An installation DVD/CD covering solvent cementing is available. It not only describes the basic principles of solvent cementing, but also covers the handling, storage and use of our products. It is highly recommended that the installer review the instructions supplied by the tube and fitting manufacturer.

#### Notes:

Hydroseal® Canada solvent cements must never be used in CPVC and PVC systems using or being tested by compressed air or gases; including air-over-water booster.

### Standards and certification listings



- Meets ASTM F 493 Standard.
- Meets SCAQMD Rule 1168/316A.
- Compliant with LEED® (Leadership in Energy and Environmental Design). When using this Hydroseal® Canada low VOC product, credit can be claimed for LEED Green Building Rating System – Indoor Environmental Quality.
- Listed by NSF International for compliance with ASTM F 493, NSF/ANSI Standard 14 for use on potable water, drain, waste, vent and sewer Applications.

### Specifications

Color:	Gray
Resin:	CPVC
Specific Gravity:	0.984 ± 0.04
Brookfield Viscosity:	Minimum 2,000 CP @ 73 ± 2°F (23 ± 1°C)

### Shipping:

**For One Liter and Above**  
Proper Shipping Name: Adhesive  
Hazard Class: 3  
Identification Number: UN 1133  
Packing Group: II  
Label Required: Flammable Liquid

**For Less than One Liter**  
Proper Shipping Name: Consumer Commodity  
Hazard Class: ORM-D

### Shelf life

2 years in tightly sealed containers. The date code of manufacture is stamped on the bottom of the container. Stability of the product is limited by the evaporation of the solvent when the container is opened. Evaporation of solvent will cause the cement to thicken and reduce its effectiveness. Adding of thinners to change viscosity is not recommended and may significantly change the properties of the cement.

### Quality assurance

Hydroseal® Canada 45 CALLIBRE CPVC CEMENT is carefully evaluated to assure that consistent high quality is maintained. Fourier transform infrared spectroscopy, gas chromatography, and additional in depth testing ensures each batch is manufactured to exacting standards. A batch identification code is stamped on each can and assures traceability of all materials and processes used in manufacturing this solvent cement.

### Availability

PART	SIZE	CPVC	45 CALLIBRE				
			DESCRIPTION	COLOR	CARTON	N.W(KGS)	G.W (KGS)
0601.845G.0120	4 oz	45 CALLIBRE	GREY	24	2.40	3.60	0.29
0601.845G.0250	8 oz			24	4.80	7.20	0.41
0601.845G.0500	16 oz			12	5.40	6.60	0.42
0601.845G.1000	32 oz			12	10.20	13.20	0.78

# ACCESSORIES

## SAFETY DATA SHEET - CPVC 45 CALIBRE FOR CPVC PLASTIC TUBE

SECTION

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** CPVC 45 Callibre for CPVC Plastic Tube  
**PRODUCT USE:** Low VOC Solvent Cement for CPVC Plastic Tube  
**SUPPLIER:**  
**MANUFACTURER:** HYDROSEAL CANADA INCORPORATED  
 108 West 13th Street, Wilmington, New Castle, Delaware - 19801  
 United States of America. Phone: +1-302-298-0822, Fax: +1-302-298-0824  
**EMERGENCY:** Transportation: CHEMTEL Tel. 800.255-3924, 813-248-0585 (International) **Medical:** Tel. 800.451.8346, 760.602.8703 3E Company (International)

### SECTION 2 - HAZARDS IDENTIFICATION

#### GHS CLASSIFICATION:

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 2B				

**GHS LABEL:**   OR   **Signal Word:** Danger **WHMIS CLASSIFICATION:** CLASS B, DIVISION 2

Hazard Statements	Precautionary Statements
H225: Highly flammable liquid and vapor H319: Causes serious eye irritation H335: May cause respiratory irritation H336: May cause drowsiness or dizziness EUH019: May form explosive peroxides	P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking P261: Avoid breathing dust/fume/gas/mist/vapors/spray P280: Wear protective gloves/protective clothing/eye protection/face protection P337+P313: Get medical advice/attention P403+P233: Store in a well ventilated place. Keep container tightly closed P501: Dispose of contents/container in accordance with local regulation

### SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

	CAS#	EINECS #	REACH Pre-registration Number	CONCENTRATION % by Weight
Tetrahydrofuran (THF)	109-99-9	203-726-8	05-2116297729-22-0000	40 - 70
Methyl Ethyl Ketone (MEK)	78-93-3	201-159-0	05-2116297728-24-0000	2 - 15
Cyclohexanone	108-94-1	203-631-1	05-2116297718-25-0000	5 - 20

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 Reporting 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.

### SECTION 5 - FIREFIGHTING MEASURES

		HMIS	NFPA	0-Minimal	
<b>Suitable Extinguishing Media:</b> Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.		Health	2	2	1-Slight
<b>Unsuitable Extinguishing Media:</b> Water spray or stream.		Flammability	3	3	2-Moderate
<b>Exposure Hazards:</b> Inhalation and dermal contact		Reactivity	0	0	3-Serious
<b>Combustion Products:</b> Oxides of carbon, hydrogen chloride and smoke		PPE	B		4-Severe
<b>Protection for Firefighters:</b> Self-contained breathing apparatus or full-face positive pressure airline masks.					

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**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).  
**Environmental Precautions:** Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.  
**Methods for Cleaning up:** Clean up with sand or other inert absorbent material. Transfer to a closable steel vessel.  
**Materials not to be used for clean up:** Aluminum or plastic containers

### SECTION 7 - HANDLING AND STORAGE

**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.  
**Storage:** Store in ventilated room or shade below 33°C (90°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

EXPOSURE LIMITS:	Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
	Tetrahydrofuran (THF)	50 ppm	100 ppm	200 ppm	
	Methyl Ethyl Ketone (MEK)	200 ppm	300 ppm	200 ppm	
	Cyclohexanone	20 ppm	50 ppm	50 ppm	

**Engineering Controls:** Use local exhaust as needed.  
**Monitoring:** Maintain breathing zone airborne concentrations below exposure limits.  
**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.  
**Respiratory 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.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Gray or orange, heavy syrupy liquid	<b>Odor Threshold:</b>	0.88 ppm (Cyclohexanone)
<b>Odor:</b>	Ketone	<b>Boiling Range:</b>	66°C (151°F) to 156°C (313°F)
<b>pH:</b>	Not Applicable	<b>Evaporation Rate:</b>	> 1.0 (BUAC = 1)
<b>Melting/Freezing Point:</b>	-108.5°C (-163.3°F) Based on first melting component: THF	<b>Flammability:</b>	Category 2
<b>Boiling Point:</b>	66°C (151°F) Based on first boiling component: THF	<b>Flammability Limits:</b>	LEL: 1.1% based on Cyclohexanone UEL: 11.8% based on THF
<b>Flash Point:</b>	-20°C (-4°F) T.C.C. based on Acetone	<b>Vapor Pressure:</b>	129 mm Hg @ 20°C (68°F) based on THF
<b>Specific Gravity:</b>	0.984 @ 23°C (73°F)	<b>Vapor Density:</b>	>2.0 (Air = 1)
<b>Solubility:</b>	Solvent portion soluble in water. Resin portion separates out.	<b>Other Data: Viscosity:</b>	Heavy bodied
<b>Partition Coefficient n-octanol/water:</b>	Not Available		
<b>Auto-ignition Temperature:</b>	321°C (610°F) based on THF		
<b>Decomposition Temperature:</b>	Not Applicable		
<b>VOC Content:</b>	When applied as directed, per SCAQMD Rule 1168, Test Method 316A, VOC content is: <= 490 g/l.		

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Stability:</b>	Stable
<b>Hazardous decomposition products:</b>	None in normal use. When forced to burn, this product gives off oxides of carbon, hydrogen chloride and smoke.
<b>Conditions to avoid:</b>	Keep away from heat, sparks, open flame and other ignition sources.
<b>Incompatible Materials:</b>	Oxidizers, strong acids and bases, amines, ammonia

**SECTION 11 - TOXICOLOGICAL INFORMATION**

<b>Likely Routes of Exposure:</b>	Inhalation, Eye and Skin Contact
<b>Acute symptoms and effects:</b>	
<b>Inhalation:</b>	Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.
<b>Eye Contact:</b>	Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid.
<b>Skin Contact:</b>	Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
<b>Ingestion:</b>	May cause nausea, vomiting, diarrhea and mental sluggishness.
<b>Chronic (long-term) effects:</b>	None known to humans
<b>Toxicity:</b>	LD <sub>50</sub>
Tetrahydrofuran (THF)	Oral: 2842 mg/kg (rat)
Methyl Ethyl Ketone (MEK)	Oral: 2737 mg/kg (rat), Dermal: 6480 mg/kg (rabbit)
Cyclohexanone	Oral: 1535 mg/kg (rat), Dermal: 948 mg/kg (rabbit)
	LC <sub>50</sub>
	Inhalation 3 hrs. 21,000 mg/m <sup>3</sup> (rat)
	Inhalation 8 hrs. 23,500 mg/m <sup>3</sup> (rat)
	Inhalation 4 hrs. 8,000 PPM (rat)

Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization to Product	Synergistic Products
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

**SECTION 12 - ECOLOGICAL INFORMATION**

<b>Ecotoxicity:</b>	None Known
<b>Mobility:</b>	In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of <= 490 g/l.
<b>Degradability:</b>	Biodegradable
<b>Bioaccumulation:</b>	Minimal to none.

**SECTION 13 - WASTE DISPOSAL CONSIDERATIONS**

Follow local and national regulations. Consult disposal expert.

**SECTION 14 - TRANSPORT INFORMATION**

<b>Proper Shipping Name:</b>	Adhesives
<b>Hazard Class:</b>	3
<b>Secondary Risk:</b>	None
<b>Identification Number:</b>	UN 1133
<b>Packing Group:</b>	PG II
<b>Label Required:</b>	Class 3 Flammable Liquid
<b>Marine Pollutant:</b>	NO

EXCEPTION for Ground Shipping	
<b>DOT Limited Quantity</b>	Up to 5L per inner packaging, 30 kg gross weight per package.
<b>Consumer Commodity:</b>	Depending on packaging, these quantities may qualify under DOT as "ORM-D".

TDG INFORMATION	
<b>TDG CLASS:</b>	FLAMMABLE LIQUID 3
<b>SHIPPING NAME:</b>	ADHESIVES
<b>UN NUMBER/PACKING GROUP:</b>	UN 1133, PG II

**SECTION 15 - REGULATORY INFORMATION**

<b>Precautionary Label Information:</b>	Highly Flammable, Irritant	Ingredient Listings: USA TSCA, Europe EINECS, Canada DSL, Australia
<b>Symbols:</b>	F, Xi	AICS, Korea ECL/TCCL, Japan MITI (ENCS)
<b>Risk Phrases:</b>	R11: Highly flammable. R36/37: Irritating to eyes and respiratory system.	R66: Repeated exposure may cause skin dryness or cracking. R67: Vapors may cause drowsiness and dizziness.
<b>Safety Phrases:</b>	S2: Keep out of the reach of children. S9: Keep container in a well-ventilated place. S16: Keep away from sources of ignition - No smoking.	S25: Avoid contact with eyes. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S33: Take precautionary measures against static discharges.

**SECTION 16 - OTHER INFORMATION**

<b>Specification Information:</b>		
<b>Department issuing data sheet:</b>	Hydroséal Laboratories	All ingredients are compliant with the requirements of the European Directive on RoHS (Restriction of Hazardous Substances).
<b>E-mail address:</b>	info@hydroséal.ca	
<b>Training necessary:</b>	Yes, training in practices and procedures contained in product literature.	
<b>Reissue date / reason for reissue:</b>	12/14/2011 / Updated GHS Standard Format	
<b>Intended Use of Product:</b>	Solvent Cement for CPVC Plastic Tube	

This product is intended for use by skilled individuals at their own risk. 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.