



State of Illinois
Office of the State Fire Marshal

Checklist for Documenting UST Compatibility

KEEP THIS FORM AT THE FACILITY WITH SUPPORTING DOCUMENTATION.

DO NOT MAIL OR FAX TO OSFM.

Facility where equipment is located:

Facility Number: 2039151
 Facility Owner: Ibrahim Mubarak
 Facility Name: 7-Eleven #32875
 Street Address: 12108 West 159th Street
 City: Homer Glen
 County: Will

UST Information:

Tank ID Number: 5
 Tank Material: Steel _____
 FRP x
 Single Wall _____ or Double Wall x
 Tank Volume: 6,000
 Tank Product: E-85

Complete the checklist below, listing compatibility determination, method used and description. **All answers must be "YES" and supported with a sufficient description or supporting documentation** in order for your UST system to demonstrate compatibility with the blended fuel/biofuel product.

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
	NO	YES		
TANK	NO	YES	B	Xerxes double wall fiberglass tank
PIPING	NO	YES	B	Ameron Double Wall fiberglass pipe, part # 22894386
CONTAINMENT SUMPS	NO	YES	B	Bravo B427X33-26T-22B-PP-SL Bravo dispenser sumps, part #B-1000-HE and part #B1257-S(for diesel satellite dispenser sumps).
PUMPING EQUIPMENT	NO	YES	B	FE Petro submersible pump, part #STPAG150-VL2 Fe Petro submersible pump, part #STP150-VL2

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
RELEASE DETECTION EQUIPMENT	NO	YES	B	Veeder Root tank sump sensor, part #794380-323 and Veeder Root interstitial sensor, part #794380-345, Veeder Root probe, part #846391-407
SPILL PREVENTION EQUIPMENT	NO	YES	B	EBW Defender overspill, part #705556111BLK
OVERFILL PREVENTION EQUIPMENT	NO	YES	B	OPW overfill drop tube, part #71SOM-412C
GASKETS & SEALS	NO	YES		Gasoil
JOINT ADHESIVES	NO	YES	B	Ameron glue, part #80210101 Gasoil, part #GE08

Methods:

- A. Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored.
- B. Equipment or manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the component is compatible with, and be from the equipment or component manufacturer

Note: Owners and operators may find American Petroleum Institute's Recommended Practice 1626, *Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations*, useful in complying with the compatibility requirements.

In order to be in compliance with the 2015 federal UST regulation compatibility requirements for storing biofuels, you must keep documentation of compatibility of the UST system components listed on this page as long as you store the fuel.

For your records, you should update this checklist each time you repair or replace components of your UST system to ensure you have all the required compatibility documentation while storing biofuels.

Checklist Completed By: print name: Warren Cherner date completed: 9-5-18
signature: Warren Cherner position/title: Vice President

Compatible Fuels & Applications

NOV Fiber Glass Systems' Red Thread® IIA and Dualoy piping systems, which includes primary and secondary pipe, primary and secondary fittings, coaxial pipe and adhesives are **UL 971 Listed** for the following fuels:

Type A	Type B
100% Reference Fuel #2 (represents Diesel, per UL)	1% HCl
100% Fuel C (represents Unleaded Gasoline, per UL)	1% Nitric Acid
85% Fuel C / 15% MTBE	Sodium Bicarbonate (pH 10)
85% Fuel C / 15% Methanol	Sodium Hydroxide (pH 12)
70% Fuel C / 30% Ethanol	100% Toluene
100% Methanol	
100% Ethanol	
50% Fuel C / 50% Methanol	
50% Fuel C / 50% Ethanol	
100% Premium Leaded Gasoline	
100% Kerosene	

Fuels not specifically tested or UL971 Listed, but **compatible** with Red Thread IIA and Dualoy piping systems, which includes primary and secondary pipe, primary and secondary fittings, coaxial Dualoy and adhesives are as follows:

- E85 (although E85 is not specifically tested, UL did test E30, E50 and E100)
- Biodiesel (all blends)
- Aviation Gas

The 2005 UL 971 Standard, which became effective July 1, 2005, required testing for the following fuel groups:

MV Fuels - Motor Vehicle

Type A - 100% Ref. Fuel #2, 100% Fuel C, 85% Fuel C/15% MTBE, 85% "C"/15% Methanol, 70% "C"/30% Ethanol
 Type B - 1% HCl, 1% Nitric Acid, Sodium Bicarbonate (pH 10), Sodium Hydroxide (pH 12)

CT Fuels - Concentrated

Type A - 100% Methanol and 100% Ethanol
 Type B - None

HB Fuels - High Blend

Type A - 50% "C"/50% Methanol and 50% "C"/50% Ethanol
 Type B - 100% Toluene

AM Fuels - Aviation and Marine

Type A - 100% Premium Leaded Gas and 100% Kerosene
 Type B - None

The applications identified in the 2005 UL 971 Standard are as follows:

- PC** - Primary Carrier
- SC** - Secondary Containment
- NV** - Normal Vent
- VR** - Vapor Recovery

Red Thread IIA and Dualoy pipe, fittings and adhesives have been tested and UL Listed for all fuels and all applications identified in 2005 UL 971. This includes both the DW Bonded Sump Entry Fitting - termination style, and SW Bonded Sump Entry Fitting.

North America

17115 San Pedro Avenue
 Suite 200
 San Antonio, TX 78232 USA
 Phone: +1 210 477 7500

South America

Estrada de Acesso à Zona
 Industrial Portuária de Suape, s/no.
 Recife, PE, Brazil 55.590-000
 Phone: +55 81 3501 0023

Europe

P.O. Box 6, 4190 CA
 Geldermalsen, The Netherlands
 Phone: +31 345 587 587

Asia Pacific

No. 7A, Tuas Avenue 3
 Jurong, Singapore 639407
 Phone: +65 6861 6118

Middle East

P.O. Box 17324
 Dubai, UAE
 Phone: +971 4881 3566

www.fgspipe.com • fgspipe@nov.com





Sealant Application Guide

This information is provided solely as a guide. Recommendations are based on a wide variety of customer experience. Federal Process suggests that users always test the product for compatibility prior to use.

GASOILA[®]

CHEMICALS

Soft-Set E-Seal Hard Set PLS-2 100 JC-30 NT Fas Seal ATS



- Acids-Dilute
- Acids-Concentrate
- Air-Compressed
- Alcohol
- Aliphatic Solvents
- Aromatic Solvents
- Brine
- Butane
- Caustic-Dilute
- Caustic-Concentrate
- Chlorinated Solvents
- Coal Tar
- Cutting Oils
- Diesel Fuels
- E-10 and E-85 Gas
- Ethanol 100%
- Ethylene Glycol
- Fatty Acids & Liquids
- Freon
- Gasoline
- Glycerine
- Heating Oils
- Helium-Gaseous
- Inert Gases
- Jet Fuel
- Kerosene
- Ketones
- LPG
- Methanol 100%
- Methyl Chloride
- Mineral Oils
- Naphthas
- Natural Gas
- Nitrogen-Gaseous
- Petroleum Solvents
- Propane
- Refrigerants
- Soap-Liquid
- Steam
- Toluene
- Vegetable Oils
- Water-Hot or Cold
- Xylene

	Soft-Set	E-Seal	Hard Set	PLS-2	100	JC-30	NT	Fas Seal ATS
Acids-Dilute	●		●	●	●	●	●	●
Acids-Concentrate	●		●	●	●	●	●	●
Air-Compressed	●		●	●	●	●	●	●
Alcohol	●		●	●	●	●	●	●
Aliphatic Solvents	●		●	●	●	●	●	●
Aromatic Solvents	●	●	●	●	●	●	●	●
Brine	●		●	●	●	●	●	●
Butane	●		●	●	●	●	●	●
Caustic-Dilute	●		●	●	●	●	●	●
Caustic-Concentrate	●		●	●	●	●	●	●
Chlorinated Solvents	●		●	●	●	●	●	●
Coal Tar	●		●	●	●	●	●	●
Cutting Oils	●		●	●	●	●	●	●
Diesel Fuels	●	●	●	●	●	●	●	●
E-10 and E-85 Gas	●	●	●	●	●	●	●	●
Ethanol 100%	●		●	●	●	●	●	●
Ethylene Glycol	●		●	●	●	●	●	●
Fatty Acids & Liquids	●		●	●	●	●	●	●
Freon	●		●	●	●	●	●	●
Gasoline	●	●	●	●	●	●	●	●
Glycerine	●		●	●	●	●	●	●
Heating Oils	●	●	●	●	●	●	●	●
Helium-Gaseous	●		●	●	●	●	●	●
Inert Gases	●		●	●	●	●	●	●
Jet Fuel	●	●	●	●	●	●	●	●
Kerosene	●	●	●	●	●	●	●	●
Ketones	●		●	●	●	●	●	●
LPG	●		●	●	●	●	●	●
Methanol 100%	●		●	●	●	●	●	●
Methyl Chloride	●		●	●	●	●	●	●
Mineral Oils	●	●	●	●	●	●	●	●
Naphthas	●	●	●	●	●	●	●	●
Natural Gas	●		●	●	●	●	●	●
Nitrogen-Gaseous	●		●	●	●	●	●	●
Petroleum Solvents	●	●	●	●	●	●	●	●
Propane	●		●	●	●	●	●	●
Refrigerants	●		●	●	●	●	●	●
Soap-Liquid	●		●	●	●	●	●	●
Steam	●		●	●	●	●	●	●
Toluene	●	●	●	●	●	●	●	●
Vegetable Oils	●		●	●	●	●	●	●
Water-Hot or Cold	●		●	●	●	●	●	●
Xylene	●		●	●	●	●	●	●



S. Bravo Systems, Inc.

2929 Vail Avenue
Commerce, CA 90040
1-800-AT-BRAVO
www.sbravo.com

Wednesday - August 25 - 2010

R3 10.21.13

RE: Bravo Fiberglass Sumps and Alternative fuels

This letter is to certify the compatibility of Bravo (S. Bravo Systems, Inc.) Single and Double Wall Fiberglass Containment Sumps with Alternative Fuels such as Biodiesel and Ethanol blended fuels. It also addresses compatibility with DEF Diesel Exhaust Fluid.

Bravo Fiberglass products are engineered with the same UL Listed materials used in the manufacture and certification of Fiberglass Tanks, matching the UL Standard 1316. Since our Fiberglass containment sumps are Built like a Tank, they can withstand continuous fuel exposure to Biodiesel, Ethanol and Alcohol blends without failure.

All DoubleWall Containment Sumps are engineered to be fully compliant with the California State Water Resource Control Board Assembly Bill AB-2481 for DoubleWall Sumps and Continuous Monitoring Systems.

The following Single and Double Wall Containment Sumps manufactured by Bravo Systems in Commerce, California are compatible with Biodiesel and Ethanol fuel blends up to B100 and E100, respectively.

- > B3XX Series Spill Buckets
- > B4XX Series Tank Sumps & Covers
- > B5XX Series Planter Transition Sumps
- > B6XX Series Walkover Transition Sumps
- > B7XX Series H-20 Rated Transition Sumps
- > B8XX Series Transition Sumps
- > B1XXX Series UDC Sumps
- > B7XXX Series UDC Sumps
- > B8XXX Series UDC Sumps
- > B9XXX Series UDC Sumps

Bravo Systems also certifies that these products are compatible with and approved for use in secondarily containing DEF Diesel Exhaust Fluid.

Each respective Series may be UL Listed in addition to being manufactured of UL recognized materials approved for use in the manufacture of Fiberglass UST tanks. Any other relevant documentation will be located in the documents area of each product's respective webpage.

Please feel free to contact us with any questions you may have at 800-AT-BRAVO.

Additionally, you may find further information at www.sbravo.com.

Sincerely,

Jonathan E. Smith
Director of Brand Management
S. Bravo Systems, Inc.





RCRX.MH6262 Pumps, Power Operated, Flammable Liquid

[Page Bottom](#)

Pumps, Power Operated, Flammable Liquid

[See General Information for Pumps, Power Operated, Flammable Liquid](#)

FRANKLIN FUELING SYSTEMS INC
3760 MARSH RD
MADISON, WI 53718-6900 USA

MH6262

Submersible type transfer pump-motor assembly, Model STP with or without T, with or without AG or AP, with or without F, with or without H, with or without R, with or without V, with or without W, with or without K, with or without M, followed by 33, 75, 150, 200, VS2 or VS4, may be followed by A, B, C or J, followed by -XXX, where X is any numeric character or VL1, VL1.5, VL2 or VL3, followed by two characters. All models have been evaluated for use with gasoline-ethanol blends with concentrations from E0 to E10 (up to E85 for models with suffix AG or AP). Models with AG or AP suffix have also been evaluated for diesel/biodiesel blends with nominal biodiesel concentrations up to 20 percent biodiesel (B20) and biodiesel (B100). Models with suffix VS2 are only for use with Model IST-VFC or MAG-VFC motor controllers. Models with suffix VS4 are only for use with MAG-VFC motor controller.

Model STP with or without AG, F, R, S or T, with or without AG, followed by 3, followed by D, followed by -XXX-XX where X may be any numeric character.

Model STP with or without AG, F, R, S or T, with or without AG, followed by 5, followed by C, D, G, or H, followed by -XXX-XX where X may be any numeric character.

All models have been evaluated for use with gasoline-ethanol blends with concentrations from E0 to E10, 20 percent ETBE or MTBE with 80 percent gasoline, and 17 percent TAME with 83 percent gasoline.

Submersible type transfer pump-motor assembly, Models IST or IST VS4 with or without T, with or without AP, with or without F, with or without R, with or without V, with or without W, with or without K, with or without M, followed by 1, 2, 3, VL1, VL1.5, VL2 or VL3, followed by two characters, Model IST only for use with Model IST-VFC or MagVFC motor controller, Model IST VS4 only for use with Model MagVFC motor controller. IST Models have been evaluated for use with gasoline-alcohol blends with alcohol concentrations from E0 to E85. Also evaluated for diesel/biodiesel blends with nominal biodiesel concentrations up to 20 percent biodiesel (B20), and biodiesel (B100).

Submersible type transfer pump-motor assembly, Models 9000-01, 9000-02. Maximum outlet pressure 50 psi. Models have been evaluated for use with Gasoline/ethanol blends at levels designated as "gasohol" (E10 maximum).

Transfer pump-motor assembly, Model VP500. Maximum outlet pressure 50 psi. Models have been evaluated for use with Gasoline/ethanol blends at levels designated as "gasohol" (E10 maximum).

Model 2000C. Maximum outlet pressure 50 psi. Models have been evaluated for use with Gasoline/ethanol blends at levels designated as "gasohol" (E10 maximum).

Models VP500/C1, VP500/C2. Maximum outlet pressure 50 psi. Models have been evaluated for use with Gasoline/ethanol blends at levels designated as "gasohol" (E10 maximum).

Trademark and/or Tradename: "F. E. Petro", "HEALY"

[Last Updated on 2016-05-30](#)

[Questions?](#)

[Print this page](#)

[Terms of Use](#)

[Page Top](#)

© 2018 UL LLC

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2018 UL LLC".

[Questions?](#)[Print this page](#)[Terms of Use](#)[Page Top](#)

© 2018 UL LLC

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2018 UL LLC".



Veeder-Root
125 Powder Forest Drive
P. O. Box 2003
Simsbury, CT 06070-7684
USA
Phone: (860) 651-2700
Fax: (869) 651-2719

January 13, 2011

Concerned Regulatory Agency

Re: Veeder-Root Compatibility with E85

To whom it may concern:

Veeder-Root TLS branded automatic tank gauging products have UL listings for product safety. The wetted component materials used with the below listed products are deemed by Veeder-Root to be compatible with ethanol 85 applications.

<u>VR Part Number</u>	<u>Description</u>
848480-003	Pressurized Line Leak Detector
846391-4XX, 5XX, 6XX	Mag Plus Probes for Alternative Fluids without water detection
846400-004,304,104	Mag Float Kit (5" cable) for Alternative Fluids 4", 3" & 2" floats
846400-014,314,114	Mag Float Kit (10" cable) for Alternative Fluids 4", 3" & 2" floats
846400-024,324,124	Mag Float Kit (20" cable) for Alternative Fluids 4", 3" & 2" floats
794380-323	Position Sensitive Pan/Sump Sensor
794380-344	MicroSensor
794380-345	Interstitial Solid State Sensor for Fiberglass Tanks
794380-430	Interstitial Sensor for Steel Tanks

The following sensor is exposed to Brine and is not of concern in an E85 application.

794380-301 Hydrostatic Sensor

Please contact Veeder-Root Technical Support at 1-800-323-1799 with further questions.

Regards,

Bob Moss
VP Engineering



September 29, 2011

To Whom It May Concern:

The following summarizes the suitability of Xerxes' UL listed underground storage tanks for the storage of ethanol-blended fuels and biodiesel fuels:

Single-Wall Tanks

- Tanks manufactured prior to February 1981 were not designed for the storage of ethanol-blended fuel. Tanks are compatible with all ASTM biodiesel blends.
- Tanks manufactured from February 1981 through June 2005 are designed for the storage of ethanol fuel up to a 10% blend (E10), as well as all ASTM biodiesel blends.
- Tanks manufactured from July 2005 to date are designed for the storage of ethanol fuel blends up to 100% (E100), as well as all ASTM biodiesel blends.

Double-Wall Tanks

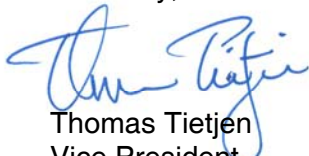
- Tanks manufactured prior to April 1990 were designed for the storage of ethanol fuel up to a 10% blend (E10), as well as all ASTM biodiesel blends.
- Tanks manufactured from April 1990 to date are designed for the storage of ethanol fuel blends up to 100% (E100), as well as all ASTM biodiesel blends.

Additionally, all storage tanks designed for storage of ethanol-blended fuel up to 100%, as noted above, are also UL listed under UL's Standard 1316 for the storage of ethanol fuel blends up to 100% (E100).

This summary is intended to address standard production tanks. Different tank models with an appropriate UL listing and designed for higher levels of ethanol storage were available throughout this period of time. Ethanol blend compatibility for such tanks is based on the design specifics of each tank.

Further information regarding product compatibility can be found in the applicable Xerxes limited warranty.

Sincerely,



Thomas Tietjen
Vice President
Sales & Marketing



Franklin Fueling Systems

May 4, 2018

Subject: Franklin Fueling Overfill Prevention Valve (OPV) and Spill Prevention Equipment Fuel Compatibility

To Whom It May Concern,

This letter affirms that the materials used by Franklin Fueling Systems in the construction of the Overfill Prevention Valve (OPV) and Spill Prevention Equipment listed herein, as of the date of this letter, is compatible with the following fuels as defined by ASTM:

Group 1

- Gasoline (E0 to E10)
- Diesel (B0 to B5)
- Heating Fuels (Kerosene, Fuel Oil)

Group 2

- Mid-level Ethanol Fuel Blends (E11 to E50)
- Ethanol Fuel Blends (E51 to E83*)

*Commercially know as E85

Group 3

- Biodiesel Blends (B5 to B20) and Biodiesel (B100)

Group 4

- Aviation Fuels (AvGas, Jet Fuel)

Overfill Prevention Valves

Model Numbers		Groups
708591901, 708591902, 708592901, 708592902, 708593901, 708593902	Defender Series™ OPVs with standard drop tubes	1
708591921, 708591922, 708592921, 708592922, 708593923, 708593924, 708594901, 708594902	Defender Series™ OPVs, AGB	1, 2, 3, 4
708226901	Defender Series™ Remote fill splice kit	1, 2, 3, 4



Franklin Fueling Systems

Spill Containment

Model Numbers		Groups
702xxxxx, 705xxxxx, 715xxxxx	EBW Series Direct Bury Spill Containers	1
705545xxx, 705555xxx, 705556xxx	Defender Series™ Direct Bury Spill Containers	1, 2, 3, 4
DMP36xxxxxx, DMP42xxxxxx	Defender Series™ Multiports	1, 2, 3, 4
SWF-100-SS, SWV-101-SS	Stainless Steel Swivel Adapters	1, 2, 3**, 4
77720102	4" Top Seal Fill Cap	1, 2, 3
30430103, 30430104	4" Vapor Recovery Cap	1, 2, 3

**B100 not determined on this equipment

Please let me know if there are any other questions of concerns regarding Franklin Fueling Overfill Prevention Valve (OPV) and Spill Prevention Equipment Fuel Compatibility.

Regards,

Nicole Keppy
Franklin Fueling Systems
Product Manager, Service Station Hardware