Biodiesel

Manufacturer's Affirmative Statement of Compatibility
(As required by California Code of Regulations section 2631(k))

Manufacturer(s) (including prior marketed names)	Model	Component Type (i.e. pipe, tank, etc.)	Current UL Standard Listing	Years Manufactured	Sizes	Unique Identifiers for Field Evaluation (i.e. color, material)	Blend Concentration	Supporting Test Data & Documents Attached
Modern Welding Company of CA	Glasteel, GS-10, Double Wall, 110% Containment, Steel / FRP Composite UST	Tank	U.L. 58 U.L. 1746	1991 - Present	520 - 50,000 Gallons	Red FRP Exterior	0 - 100%	Yes
Modern Welding Company of CA	Glasteel, GS-16, Double Wall, Steel / FRP Composite UST	Tank	U.L. 58 U.L. 1746	1991 - Present	520 - 50,000 Gallons	Red FRP Exterior	0 - 100%	Yes
Modern Welding Company of CA	Glasteel, GS-13, FRP Jacketed Steel UST	Tank	U.L. 58 U.L. 1746	1991 - Present	520 - 50,000 Gallons	Red FRP Exterior	0 - 100%	Yes

For **tanks and piping** please list only double wall products

(Insert a company logo below if available)

❖ Please complete and submit form to Cory Hootman of the SWRCB at chootman@waterboards.ca.gov.

4/2012

Biodiesel

Manufacturer's Affirmative Statement of Compatibility
(As required by California Code of Regulations section 2631(k))

Manufacturer: Modern Welding Company of California, Inc.
Corporate Headquarters Address: **Modern Welding Company of California, Inc.**
4141 N. Brawley Avenue
Fresno, CA 93722
Phone: 559-275-9353
Email: bbartlett@modweldco.com

I declare, to the best of my knowledge and belief, that this affirmative statement of compatibility and the information contained herein is true, correct, and complete.

Robert Bartlett
Print Name

Robert Bartlett
Manufacturer's Authorized Signature

Vice President / Plant Manager
Title

5/22/12
Date

❖ Please complete and submit form to Cory Hootman of the SWRCB at chootman@waterboards.ca.gov.

RECEIVED TIME MAR.27. 1:15PM PRINT TIME MAR.27. 1:16PM

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(708) 272-8800
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MCI Mail No. 254-3343
Telex No. 6502543343

Underwriters Laboratories Inc.®

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March 27, 1996

Modern Welding Company, Inc.
Mr. Stephen L. Fort
Box 1450
Owensboro, KY 42302-1450

Our Reference: MH3217

Subject: UL 58 and UL 1746 Listings

Dear Steve:

This responds to your March 27, 1996 fax.

Modern Welding Company has the following UL 58 and 1746 Listed tank constructions:

UL58: Underground Tanks for Flammable Liquids,
Type I Secondary Containment Underground Tanks.
Type II Secondary Containment Underground Tanks.

UL1746: Composite Underground Tank For Flammable Liquids
Type I Secondary Containment Composite Underground Tank for Flammable Liquids.
Type II Secondary Containment Composite Underground Tank for Flammable Liquids.
Jacketed Underground Tank for Flammable Liquids.

Modern has actively participated in building these tank constructions for many years. For example, Modern's UL58 Listing for "Underground Tanks for Flammable Liquids" was established on May 31, 1962. Modern's UL1746 Listing for "Composite Underground Tank for Flammable Liquids" was established on May 28, 1990.

These tanks are intended for installation and use in accordance with the Flammable and Combustible Liquids Code, NFPA 30 and the Standard for the Installation of Oil-Burning Equipment, NFPA 31.

A not-for-profit organization dedicated to public safety and committed to quality service

If you have any questions on this information, please feel free to contact me.

Sincerely,

LISA DEVERA (Ext.43241)
Associate Project Engineer
Engineering Services, 416B

Reviewed by:

THOMAS SKOWERA (Ext. 42086)
Engineering Group Leader
Engineering Services, 416B

The UL report

Modern Welding Company of California, Inc.
4141 N. Brawley Ave
Fresno, CA 93722
Fabricators of Metal Products
559-275-9353; Fax: 559-275-4381

January, 2009

Re: Steel tanks are compatible with ethanol and bio-diesel blended fuels.

To Whom It May Concern:

Modern Welding Company of California, Inc. position on the compatibility of steel aboveground and underground tanks for the storage of ethanol blended fuels (E-10; E-85; or E-100) and bio-diesel blended fuels including ultra low sulfur diesel fuels (B-5, B-10, B-20 or B-100) are as follows.

Modern Welding Company of California, Inc. acknowledges that fuels stored in our aboveground and underground storage tanks should meet the requirements of national quality standards as published by ASTM, The American Society of Testing and Materials.
A few examples are listed below:

- ASTM D6751-08, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (EPA Requirement)
- ASTM D5798, Standard Specification for Fuel Ethanol for Spark Ignition Engines
- ASTM D4806, Standard Specification for Denatured Fuel Ethanol for Blending with Gasoline for Use as Automotive Spark Ignition Engine Fuel
- ASTM D7467, Specification for Diesel Fuel Oil Biodiesel Blend (B6 to B20)
- ASTM D975-08a, Specifications for Diesel Fuel Oils
- ASTM D396-08b, Specifications for Fuel Oils

Modern Welding Company of California, Inc. recognizes the publications issued by the Department of Energy's National Renewable Energy Laboratory and the Office of Scientific and Technical Information, the National Biodiesel Board and the Renewable Fuels Association concerning the storage of ethanol and bio-diesel blended fuels which indicate that steel aboveground or underground tank installations are serviceable for such purpose. Aboveground steel tanks should be secondarily contained and manufactured from low-carbon steel as referenced in the Underwriters Laboratories UL-142 construction standard. Underground steel tanks should be secondarily contained and manufactured from low-carbon steel as referenced in the Underwriters Laboratories UL-58 and UL-1746 standards.

The 2006 International Fire Code, section 3404.2.7, references NFPA 30 for tank design and construction of flammable and combustible liquid storage tanks. The NFPA 30, 2008 edition, section 21.4.1, requires steel tanks use for the storage of all Class I and Class II liquids.

Ethanol Reference

US Department of Energy
Energy Efficiency and Renewable Energy
National Renewable Energy Laboratory
www.eere.energy.gov
Phone: 877-337-3463
http://www.afdc.energy.gov/afdc/pdfs/41853.pdf

Ethanol Reference

Renewable Fuels Association
One Massachusetts Ave. NW, Suite 820
Washington DC 20001
Phone: (202) 289-3835
Fax: (202) 289-7519
Email: info@ethanolrfa.org
Website: www.ethanolrfa.org
http://www.ethanolrfa.org/objects/pdf/newRFA%20Fuel%20Ethanol%20960501.pdf

Biodiesel Reference

U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, TN 37831-0062
Phone: 865.576.8401
Fax: 865.576.5728
http://www.nrel.gov/docs/fy08osti/43672.pdf

National Biodiesel Board Main Office
605 Clark Ave
P.O. Box 104898
Jefferson City, Missouri 65110
PHONE: (573) 635-3893
Toll Free: 1-800-841-5849
FAX: (573) 635-7913
info@biodiesel.org
http://www.nrel.gov/docs/fy08osti/43672.pdf
www.biodiesel.org

Steel Tank Institute
944 Donata Ct.
Lake Zurich, IL 60047
Phone: 847-438-8265
Fax: 847-438-8766
http://www.steeltank.com/Portals/0/PressReleases/04.08-BIODIESEL-STEEL-COMPATIBILITY.pdf
https://www.steeltank.com/LinkClick.aspx?fileticket=DmVUhxGwDVE%3d&tabid=108&mid=502

Inspection and Maintenance Programs

It is important that owners implement a maintenance program for all tanks and associated equipment, including monitoring and removing any water that may accumulate within the tank system. Additionally, tanks owners should consider cleaning existing tanks prior to introducing bio-fuels. Bio-fuels "clean fuels" deteriorate, test outside the parameters of ASTM standards, at much faster rates than traditional crude oil based fuels. Therefore, owners and operators must remain diligent in monitoring fuel quality to protect their customers from "out of spec" fuels that in some cases may exceed maximum fuel storage life. Recommended practices for inspection and maintenance can be obtained from the following sources and those listed earlier:

Petroleum Equipment Institute
P.O. Box 2380
Tulsa, OK 74101
918-494-9696
RP-900-08, "Recommended Practices for the Inspection and Maintenance of UST Systems"
RP-500-05, "Recommended Practices for the Inspection and Maintenance of Motor Fuel Dispensing Equipment"

Inspection and Maintenance Programs

Steel Tank Institute
944 Donata Ct.
Lake Zurich, IL 60047
Phone: 847-438-8265
Fax: 847-438-8766
STI-SP001, Standard for Inspection of Aboveground Storage Tanks
Keeping Water Out of Your Storage System:
https://www.steeltank.com/Portals/0/pubs/KeepingWaterOutofYourStorageSystem_updated%20_2_.pdf
www.steeltank.com

Underwriters Laboratories position on ethanol and biodiesel fuels.

Ethanol
Underwriters Laboratories has published the following statements with regards to E-85 fuels, "UL does not offer a specific certification program that covers E85 for steel, cathodic, composite and coated underground and aboveground storage tanks, but offers a general listing for flammable and combustible liquids that includes high-percentage blend ethanol fuels such as E85. Accepted industry practices have been well established to require regular inspection and maintenance procedures to mitigate the higher potential for degradation associated with higher blend ethanol fuels."
http://www.ul.com/regulators/E85_storage_FAQs.pdf

Biodiesel
Underwriters Laboratories Inc. has announced that products intended to use biodiesel blends up to B5 that are compliant with applicable ASTM International fuel standards will not require special investigation by UL. This is consistent with ASTM standards for heating oil and diesel fuel, which were recently updated to indicate that B5 blends may be considered the same as the conventional petroleum fuels under their scope.
http://www.ul.com/gasandoil/b5.html

Underwriters Laboratories also offers a "UL Consumer Fact Sheet" related to biofuels. UL is in the process of finalizing product safety requirements for equipment specified for use with biodiesel (B100) and biodiesel blends up to B20. At this time there is no specific certification program offered by UL for biodiesel fuels in excess of B5.
http://www.ul.com/regulators/educational/FactSheet_Biofuels.pdf

As the United States implements a new energy independence policy the use of alternative fuels like ethanol and biodiesel will become more widespread. Underwriters Laboratories at this time does not issue specific certification programs addressing each of these new fuels. We therefore must rely on other organizations such as those listed in this letter to address the concerns of fuels use and compatibility.

Modern Welding Company of California, Inc has been manufacturing steel fabricated products for more than 75 years. Modern Welding Company of California, Inc. is a major supplier of steel storage tanks for ethanol and biodiesel production facilities including tanks used in the blending processes of both ethanol and biodiesel fuels. Visit our website at www.modweldco.com for an overview of our steel products and capabilities.

Steel Tank Institute
Steel Plate Fabricators Association

May 19, 2009

Laura Fisher
California State Water Control Board

Re: Biodiesel Storage

Dear Laura:

As per your request, I am attaching a list of steel tank manufacturers that I am aware of that currently sell steel underground tanks in California. I'm still checking to see if there are other tank manufacturers that previously sold USTs in CA.

Steel Tank Institute conducted a cooperative research project with other parties on the compatibility of steel with biodiesel. Steel was tested with various blends of biodiesel ranging from 0 to 100%. The conclusion of the study is that steel is compatible with biodiesel blends and that biodiesel can be stored in any steel storage tank. Please let me know if you would like any additional copies of the study. Copies are also available through the STI website at www.steeltank.com.

Please let me know if you need additional information. Thank you for informing us of this new requirement.

Sincerely,

Lorri Grainawi
Director of Technical Services

Divisions of STI/SPFA **• 944 Donata Court • Lake Zurich, IL 60047 •**
• 847/438-8265 x 244 • Fax: 847/438-8766 • lgrainawi@steeltank.com •
www.steeltank.com

Tank Manufacturers and their tank model numbers

Modern Welding Company
Model 10, Glasteel ACT-100 Type II
Model 16, Glasteel ACT-100 Type I
Model 13, Glasteel II, Jacketed Secondarily Contained Construction

Mosier Brothers
ACT-100
Permatank
Vacuum Double Wall

Perkins Welding
Sti-P3, SW and DW