



Chemistry of Underground Storage Tank (UST) Compatibility with Biofuels

Amber Camarena, Environmental Scientist

Tu-C2

February 27, 2024

26th California Unified Program
Annual Training Conference
February 26-29, 2024



Introduction



➤ Why?

Mission critical

December 31, 2025

Biofuel popularity rising



➤ What?

➤ How?

26th California Unified Program
Annual Training Conference
February 26-29, 2024

Agenda

➤ What?

- Statutes, regulations & violations
- Chemistry of motor vehicle fuels
 - Biofuel benefits and drawbacks
- Biofuel compatibility studies

➤ How?

- Demonstrating compatibility



Definition

“Compatible” –

The ability of two or more

substances to **maintain** their **properties** upon contact with one another for the **design life** of the tank **system**.



California Health and Safety Code (H&SC), div. 20, ch. 6.7, § 25281

Definition

“Biofuel” –

Liquid fuel
produced by
renewable
sources of
biomass.

Algae/
kelp



Crop
waste



Animal waste



Wood



Biomass

Oil-
seed
crops



Municipal
solid waste/
trash



Food waste



www.climatehubs.usda.gov/hubs/international/topic/biomass-energy

Piping Incompatibility



Piping Incompatibility



Piping Incompatibility



Piping Incompatibility



Piping Incompatibility



Piping Incompatibility

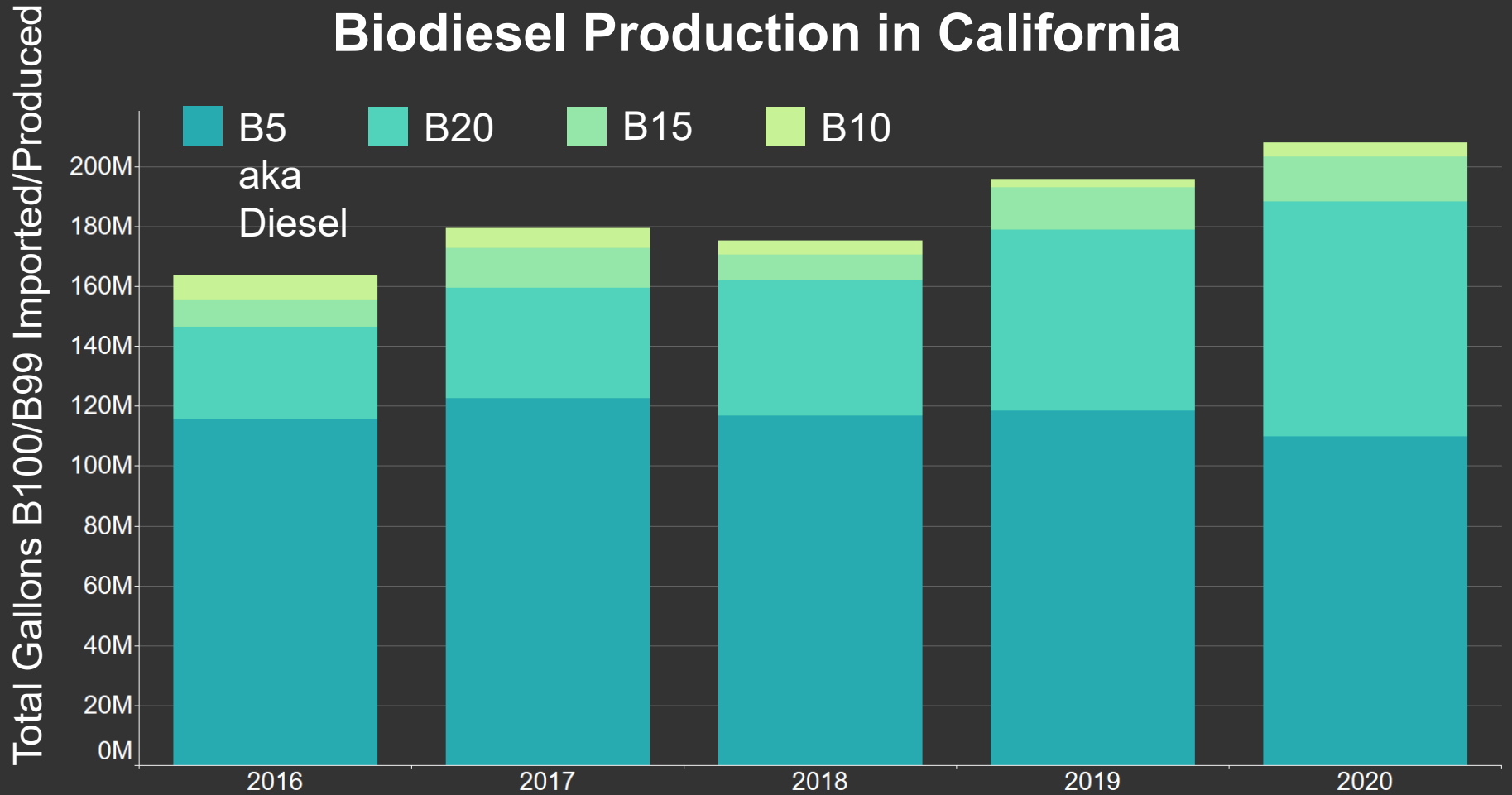


Agenda

➤ Why?

- Biofuel popularity rising
- Compatibility statutes, regulations & violations
- Chemistry of motor vehicle fuels
 - Biofuel benefits and drawbacks
- Biofuel compatibility studies
- Demonstrating compatibility

Biodiesel Production in California



RENEWABLE DIESEL BLEND

RENEWABLE DIESEL BLEND

DCL 1199

Biodiesel Blend

contains biomass-based diesel or biodiesel in quantities between 5 percent and 20 percent

THIS FUEL CONTAINS BIODIESEL. CHECK THE OWNER'S MANUAL OR WITH YOUR ENGINE MANUFACTURER BEFORE USING.

80% Biomass-Based Diesel Blend

contains more than 20 percent biomass-based diesel or biodiesel

Renewable Biodiesel B20

\$ 5.299

Price Per Gallon Including Tax



Gallons

Status 1000

BIODIESEL



20% Biomass-Based Diesel Blend
contains biomass-based diesel or biodiesel in quantities between 5 percent and 20 percent

7



Cash Customer

Sale \$ Gallons

PUMP 1

1. Paying at Pump? Enter Identification On Display Screen
2. Remove Nozzle
3. Select Grade Push Button To Dispense Fuel
4. After Fueling Remove Nozzle To Shut Off Pump

Top To Pay

Push To Speak With Attendant

Biodiesel Blend

THIS FUEL CONTAINS BIODIESEL. CHECK THE OWNER'S MANUAL OR WITH YOUR ENGINE MANUFACTURER BEFORE USING.

80% Biomass-Based Diesel Blend

Renewable Biodiesel B20

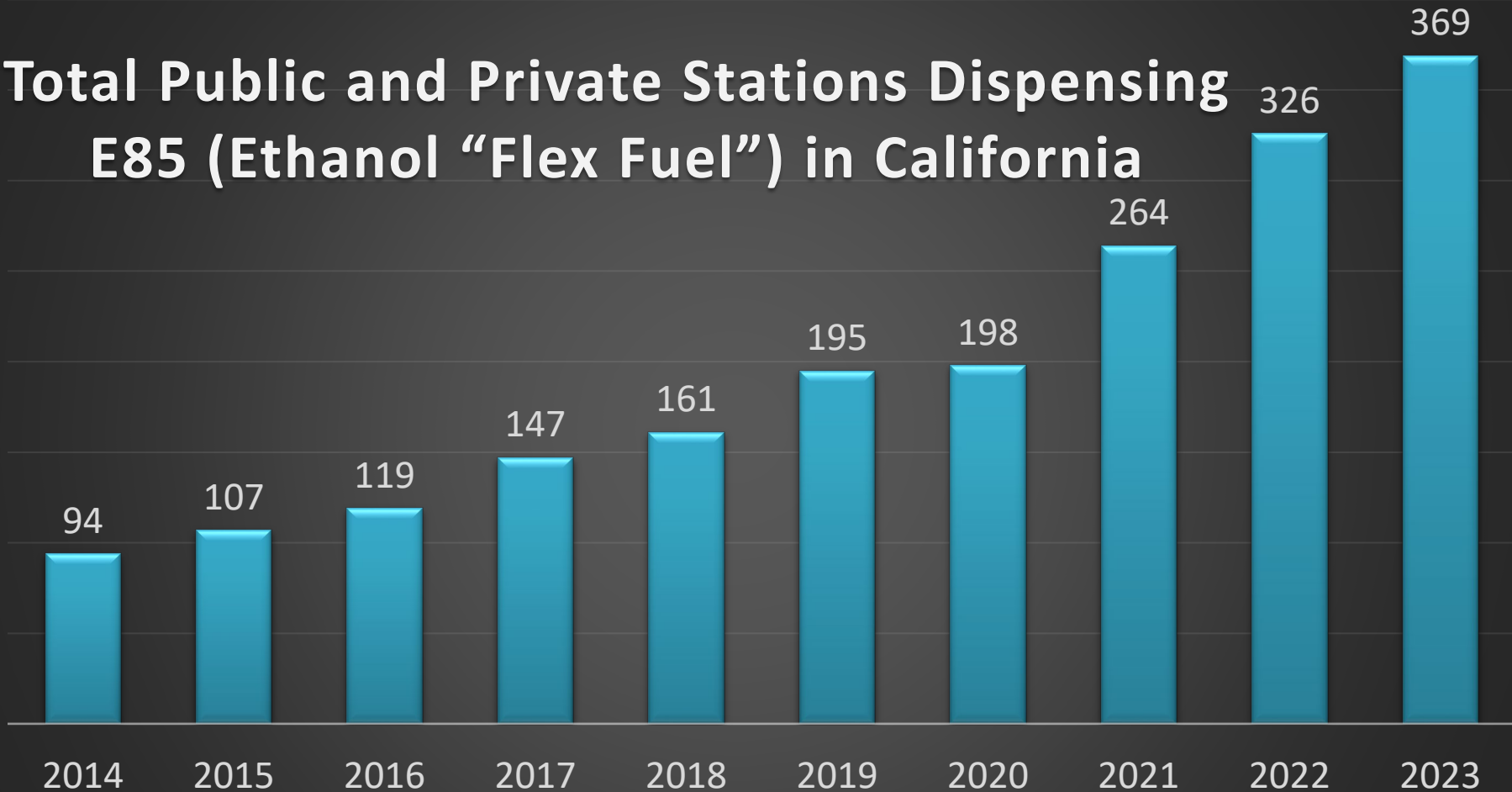
\$ 5.299

B20

20% Biomass-Based Diesel Blend

Total Public and Private Stations Dispensing E85 (Ethanol “Flex Fuel”) in California

STATION COUNT





FlexFuel E85

HIGH PERFORMANCE FUEL

- Increases power & acceleration
- High-octane performance
- Reduces emissions & pollution

Flex Fuel E85 is designed for Flex Fuel vehicles.
Check vehicle compatibility on our site.

Agenda

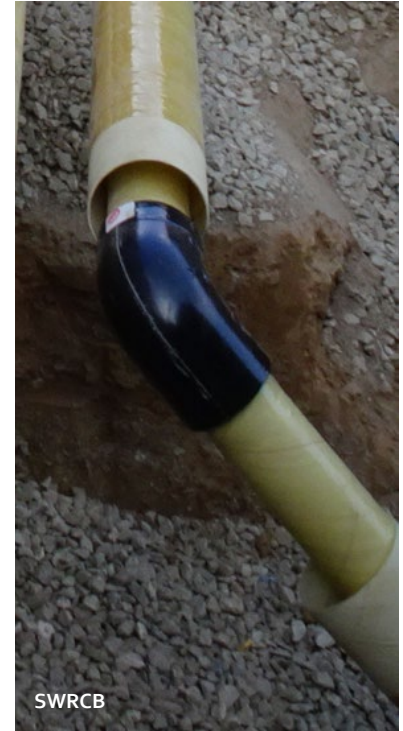
➤ What?

- Biofuel popularity rising
- **Compatibility statutes, regulations & violations**
- Chemistry of motor vehicle fuels
 - Biofuel benefits and drawbacks
- Biofuel compatibility studies
- Demonstrating compatibility

Statutes

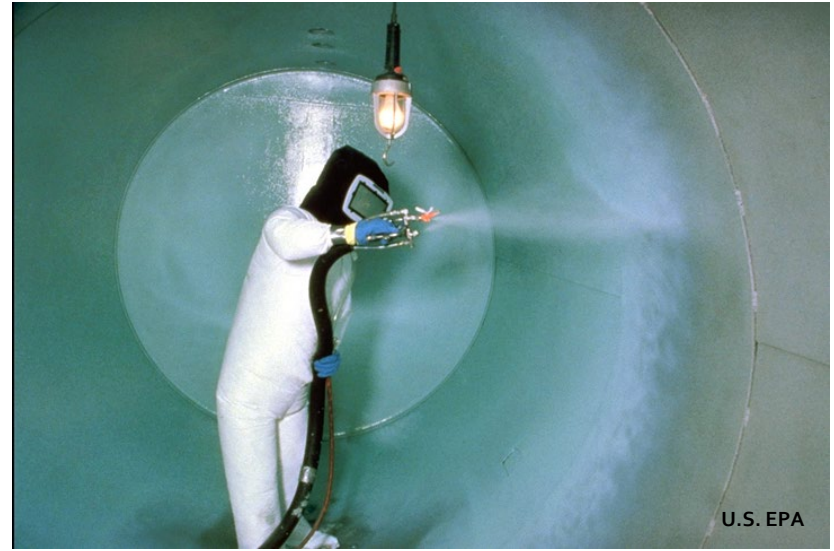
“Primary containment shall be ...
compatible with the substance stored.”

H&SC §§ 25291(a)(1), 25290.2(c)(1), 25290.1(c)(1)



Regulations

§ 2631.1(a): Owners and operators must use a UST system made of or lined with **materials** that are **compatible** with the substance stored.



California Code of Regulations, tit. 23, div. 3, ch. 16
(UST Regulations)

Regulations

§ 2660(m): Materials used in **repairs** and **upgrades** shall be compatible with existing materials and shall not be subject to deterioration...



- UST Regulations

26th California Unified Program
Annual Training Conference
February 26-29, 2024



Violations

- 1. UST Design/Construction – Compatibility:** UST system is not made of or lined with materials that are compatible with the substance stored in the UST system.
- 2. Compatibility records:** Failure to submit and/or maintain documentation regarding compatibility for UST system components.



Agenda

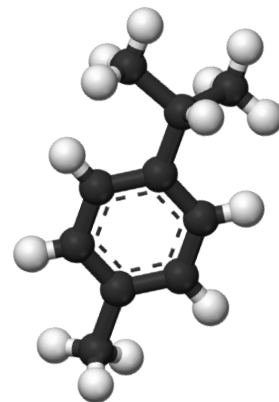
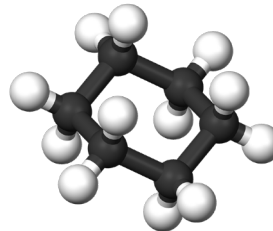
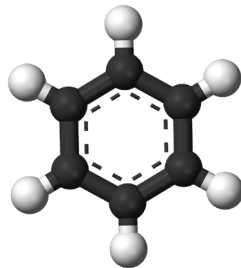
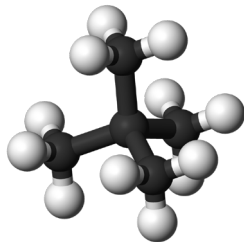
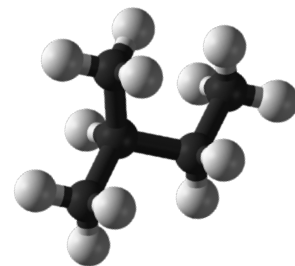
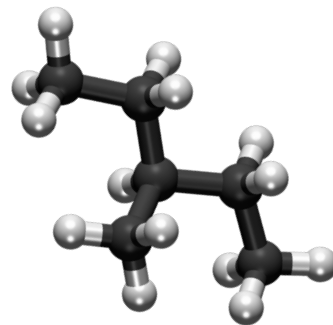
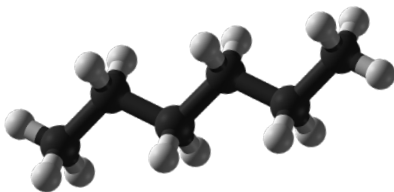
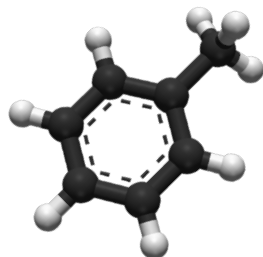
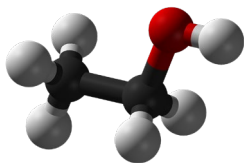
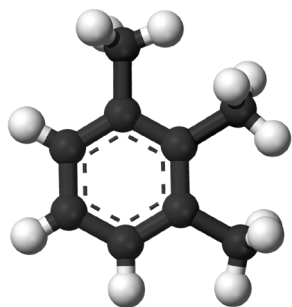
➤ What?

- Biofuel popularity rising
- Compatibility statutes, regulations & violations
- **Chemistry of motor vehicle fuels**
 - Biofuel benefits and drawbacks
- Biofuel compatibility studies
- Demonstrating compatibility

Motor Vehicle Fuel Types

Gasoline

C_4 to C_{12}

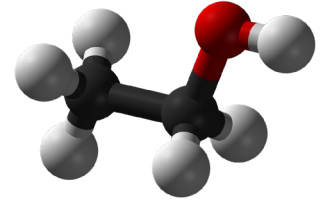


Motor Vehicle Fuel Types

Ethanol Fuel

Made up of gasoline blended with **>10%** denatured ethanol

- **E15**: 10.5-15% ethanol
- **E85** aka flex fuel:
51-83% ethanol

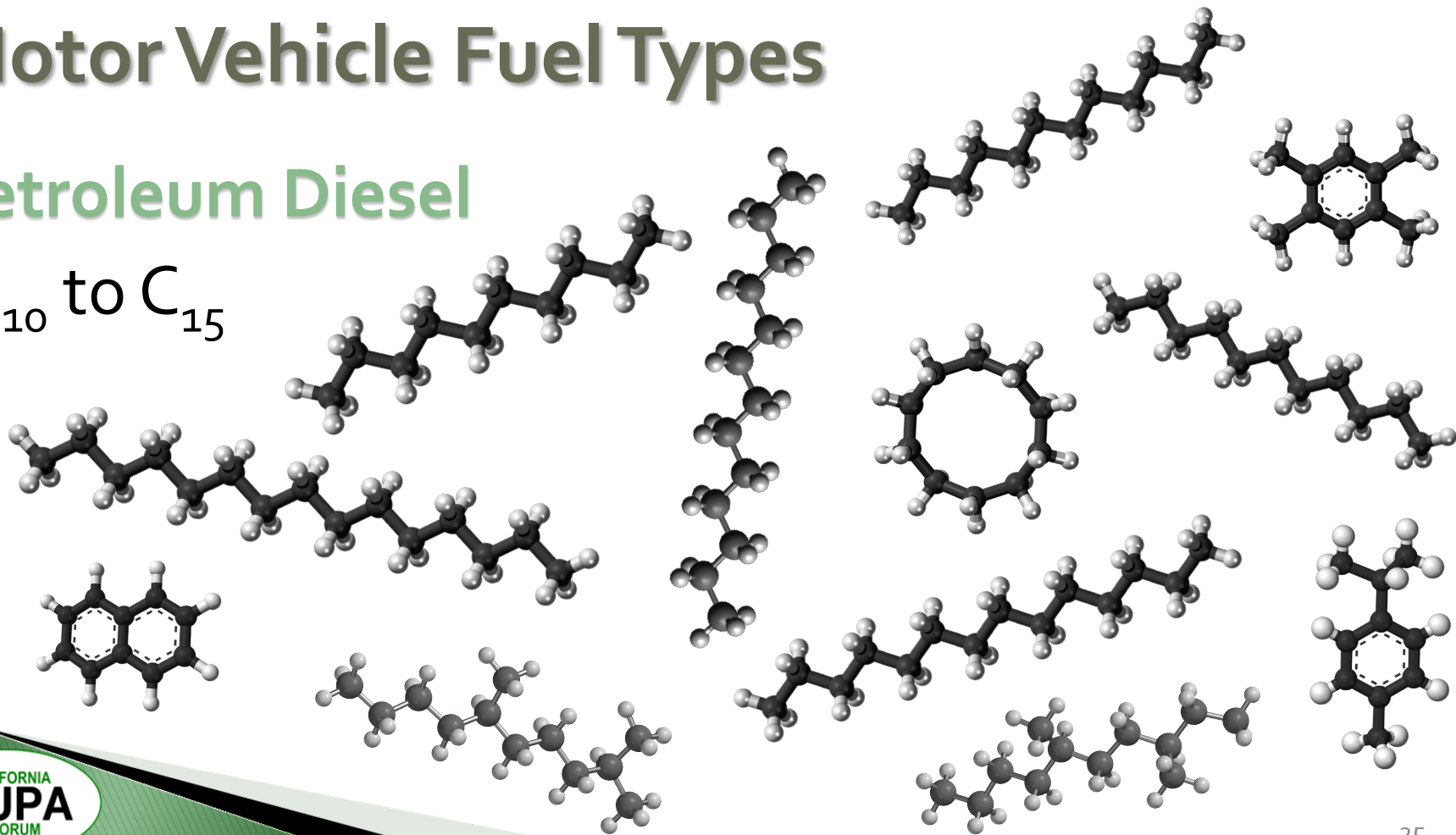


26th California Unified Program
Annual Training Conference
February 26-29, 2024

Motor Vehicle Fuel Types

Petroleum Diesel

C_{10} to C_{15}

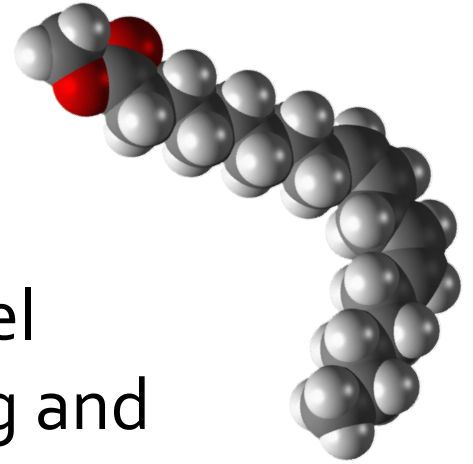


Motor Vehicle Fuel Types

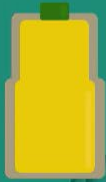
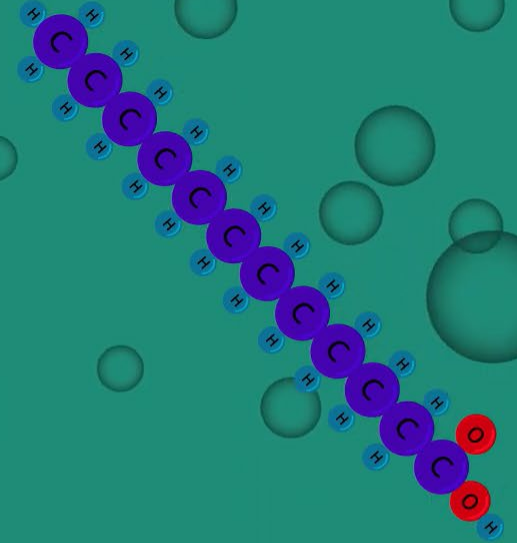
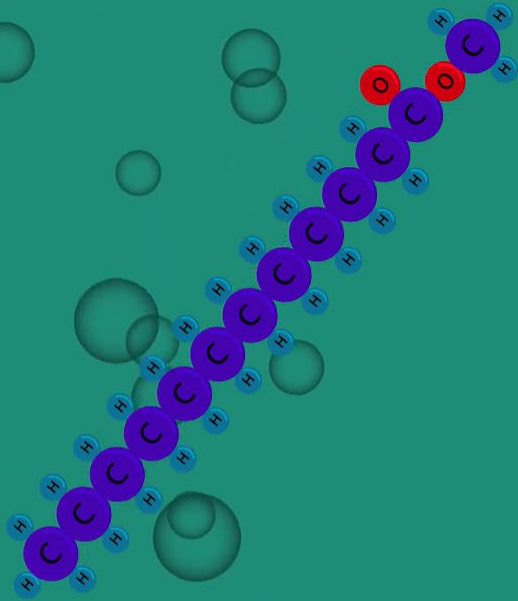
Biodiesel

“Neat biodiesel” or B100 is pure biodiesel meeting the American Society of Testing and Materials International (ASTM) standard D6751

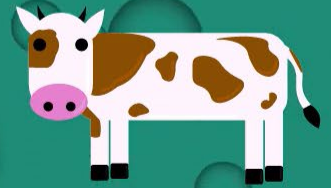
- B5 (regular diesel)
- B6 through B20
 - must meet ASTM standard D7467
 - \leq B20 \approx petrodiesel for compatibility regulatory purposes



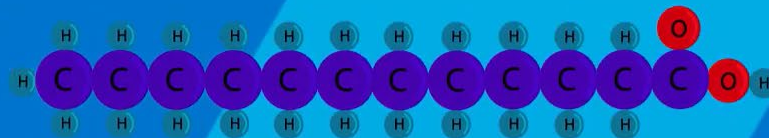
Biodiesel



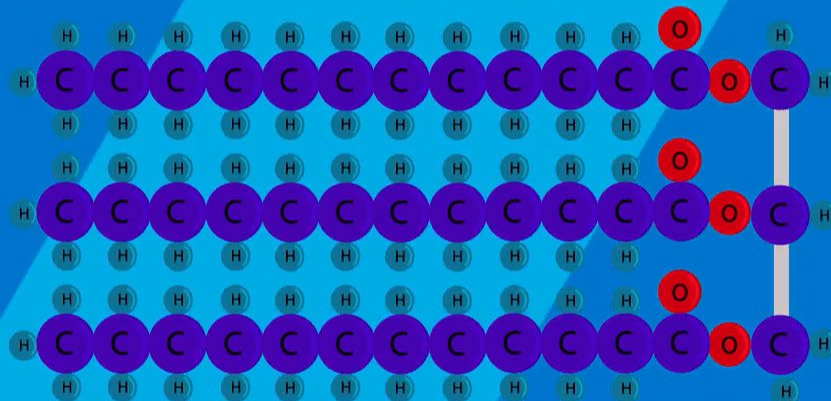
is mono-alkyl esters
of long chain fatty acids
derived from veg oil and animal fats



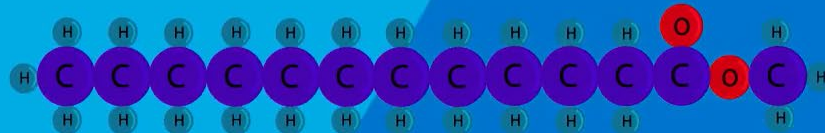
Fatty Acids



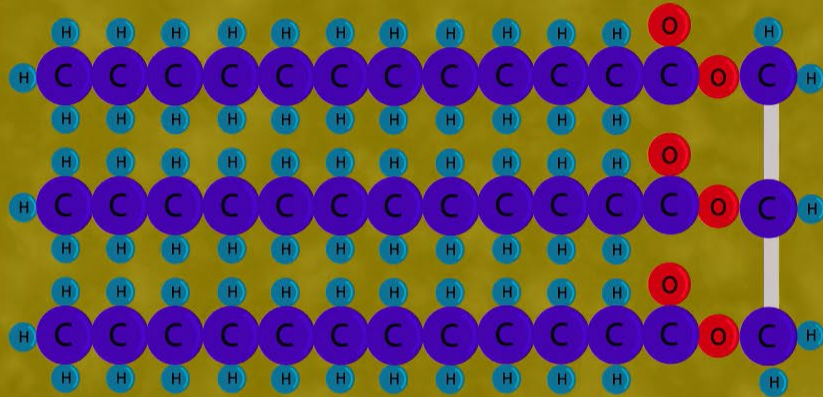
Triglycerides



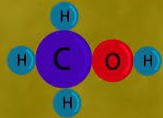
Esters



Transesterification Reaction



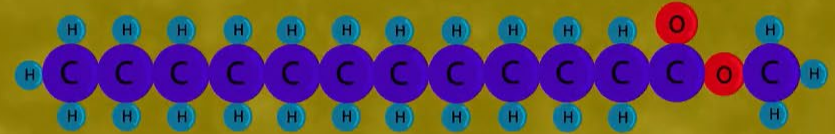
triglycerides



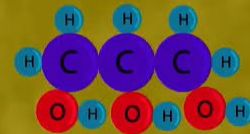
alcohol



catalyst

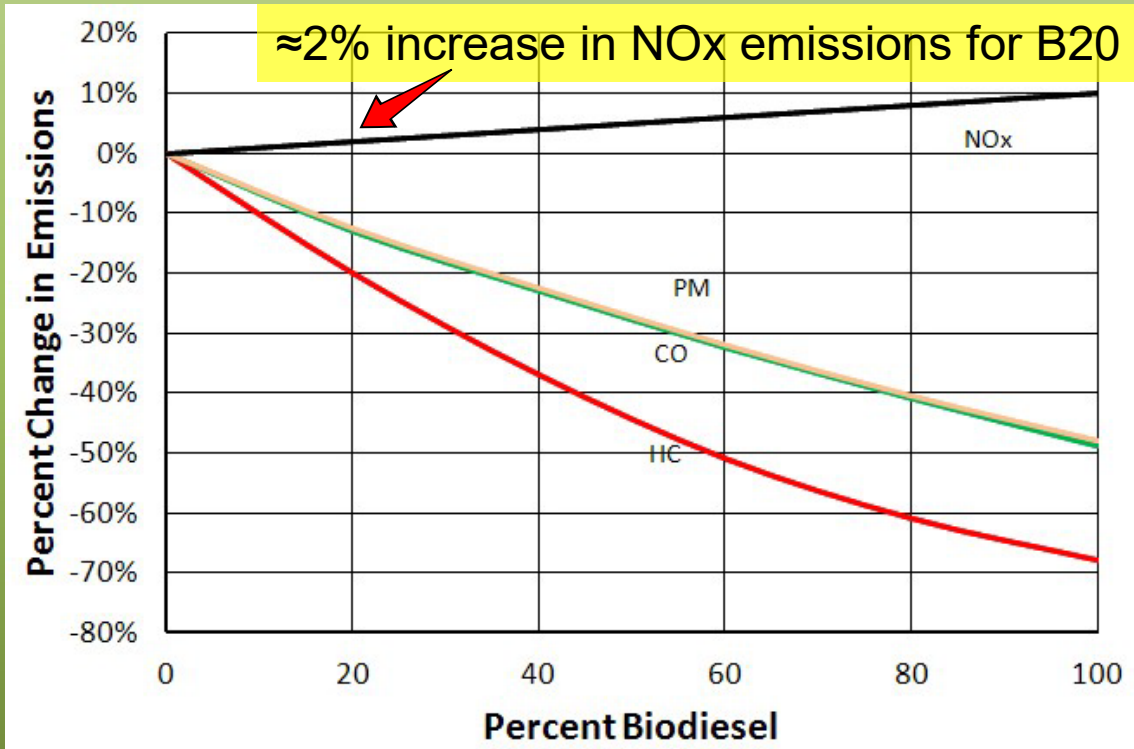


fatty esters



glycerol

Average Emissions Impact of Biodiesel for Heavy-Duty Highway Engines

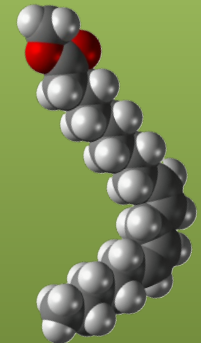


+
Particulate
matter

Carbon
monoxide

Hydrocarbons

-
Nitrogen
oxides



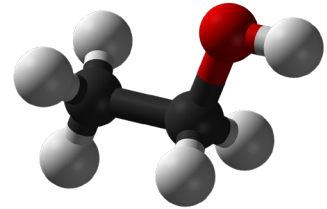
Agenda

➤ What?

- Biofuel popularity rising
- Compatibility statutes, regulations & violations
- Chemistry of motor vehicle fuels
 - Biofuel benefits and drawbacks
- **Biofuel compatibility studies**
- Demonstrating compatibility

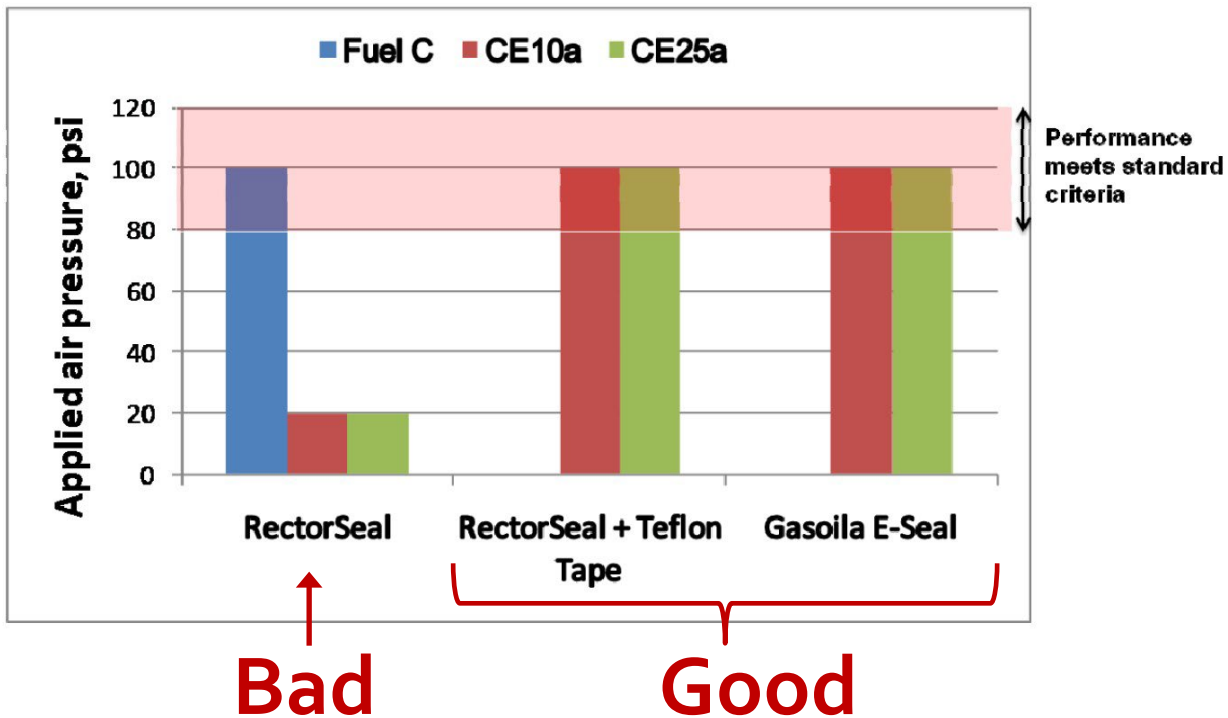
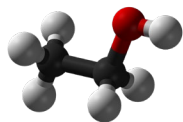
Compatibility Studies – Ethanol Blends

- Sealants
- Plastics
 - Thermoplastics & Thermosets
- Metals
- Elastomers



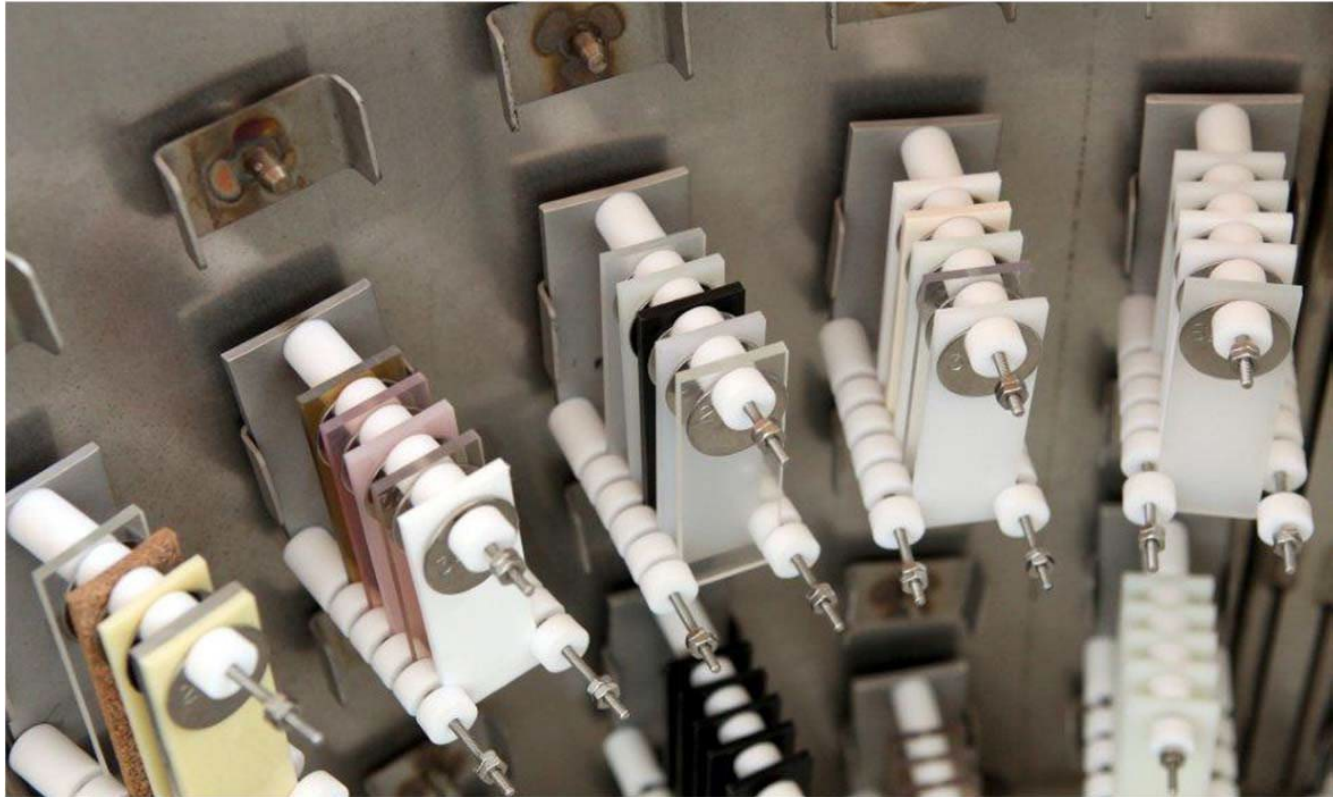
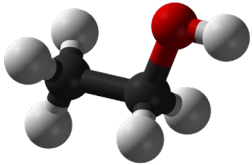
Compatibility Studies – Ethanol Blends

Sealants

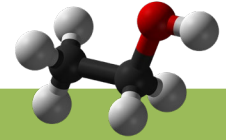


Compatibility Studies – Ethanol Blends

Plastics



Plastics Tested with Ethanol Fuel



Thermoplastics

High-performance polymers

Fluoropolymers: Polytetrafluoroethylene (PTFE aka Teflon) & Polyvinylidene fluoride (PVDF)
Polyphenylene sulfide (PPS)

Mid-range polymers

Polyesters: Polyethylene terephthalate (PET), PETG (copolymer), Polybutylene terephthalate (PBT)
Acetals: Polyoxymethylene (POM) (homopolymer & copolymer)
Nylons: nylon 6, nylon 6/6, nylon 12, and nylon 11

Commodity (low-cost) polymers

Polypropylene (PP)
Polythiourea (PTU)
High-density polyethylene (HDPE) & fluorinated (F-HDPE)

Thermosets

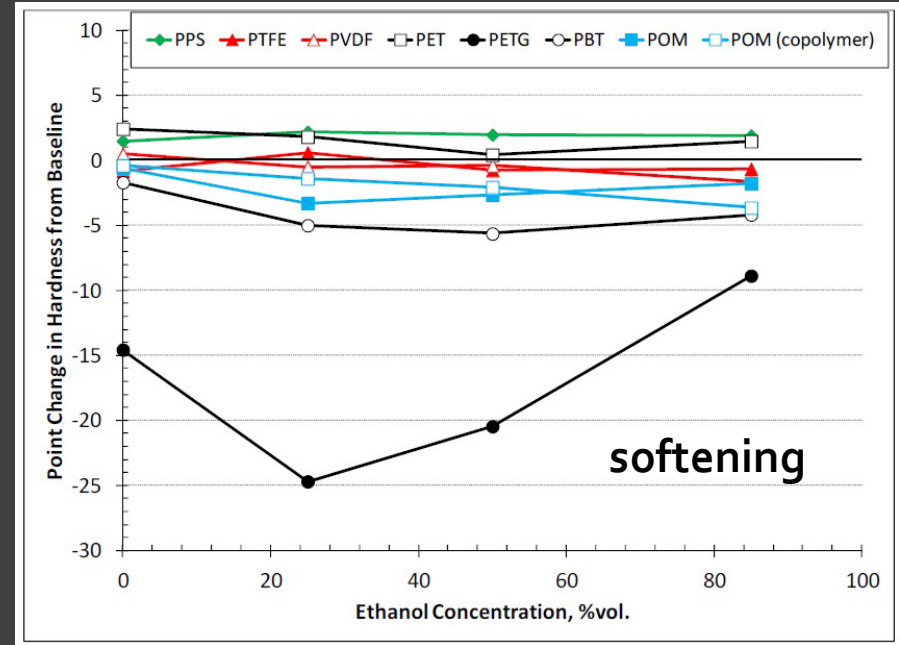
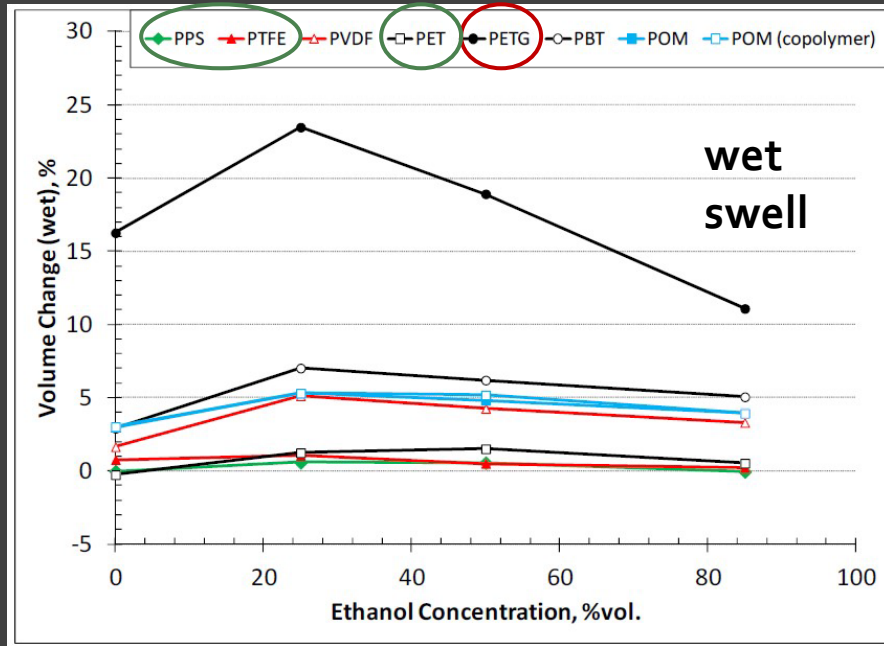
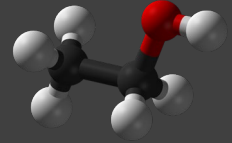
Polyester resins

Isophthalic polyester (2 grades)
Terephthalic polyester

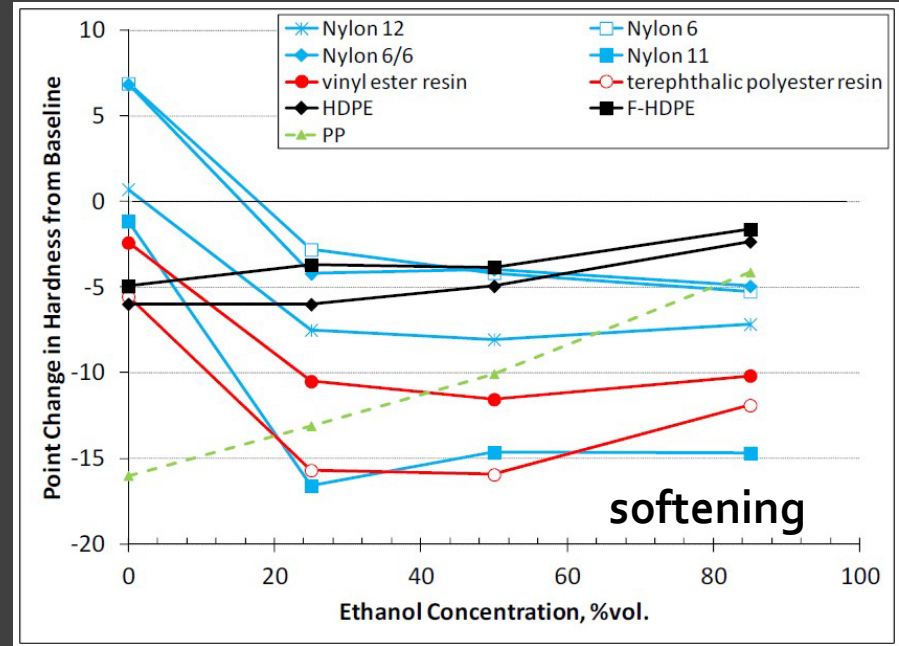
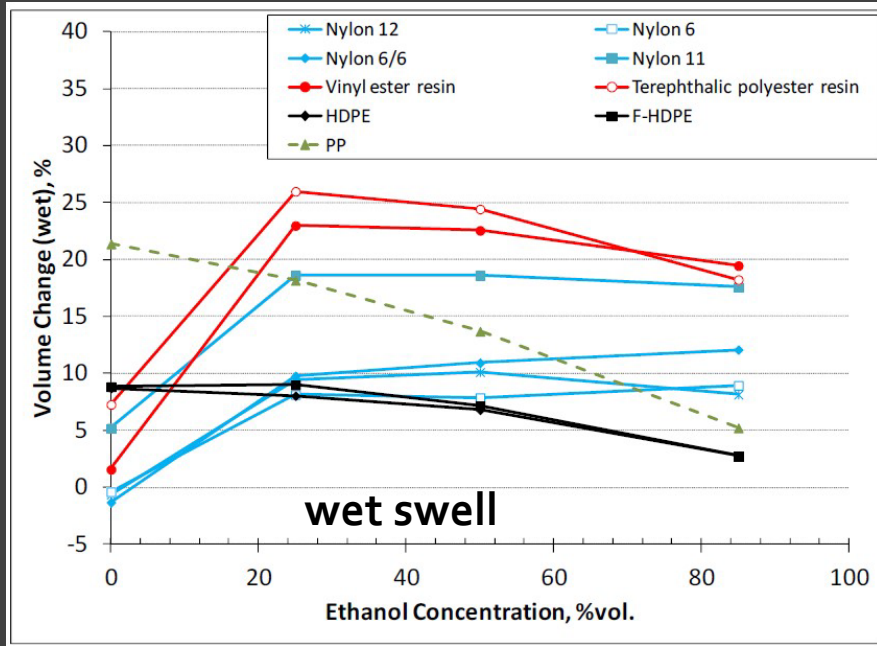
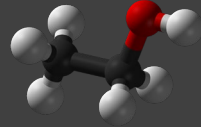
Vinyl ester resin

Epoxy resins (2 curing conditions)

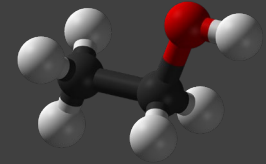
Thermoplastics – High-performance and mid-range polymers



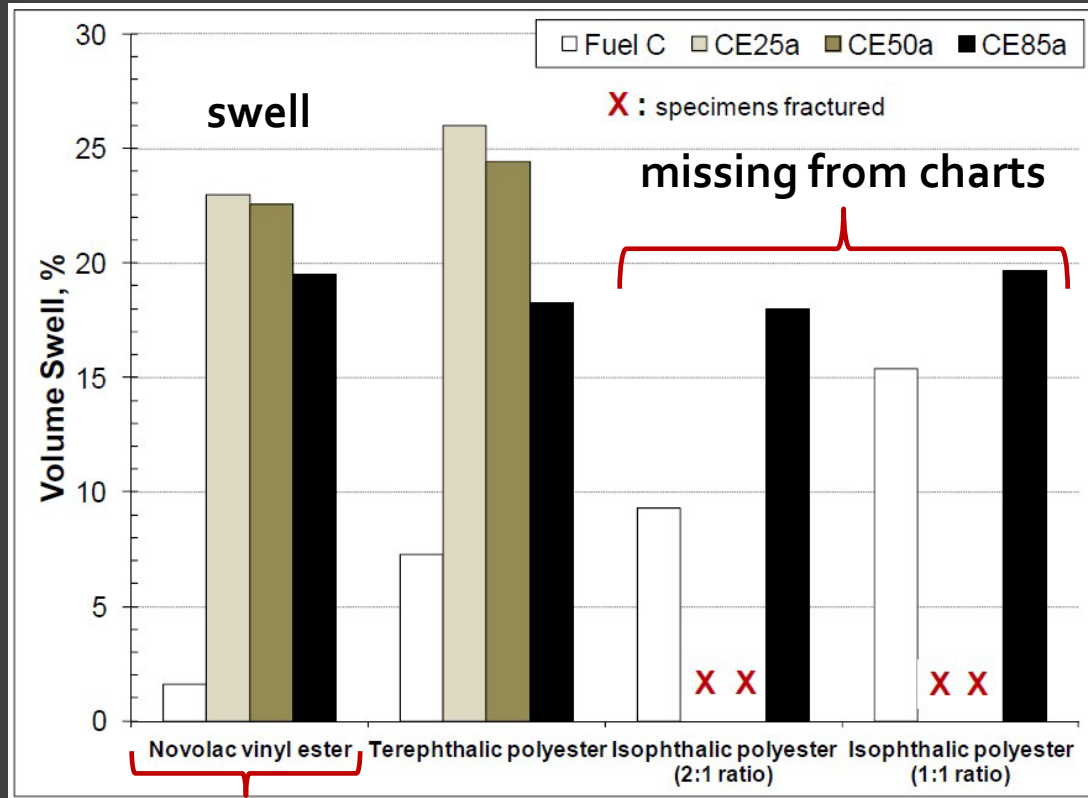
Thermoplastics – Mid-range and commodity polymers; Thermoset resins



Thermoset resins



Ethanol concentration

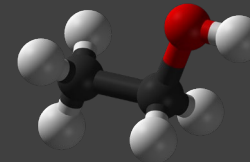


All Bad
w/out fiber
reinforcement

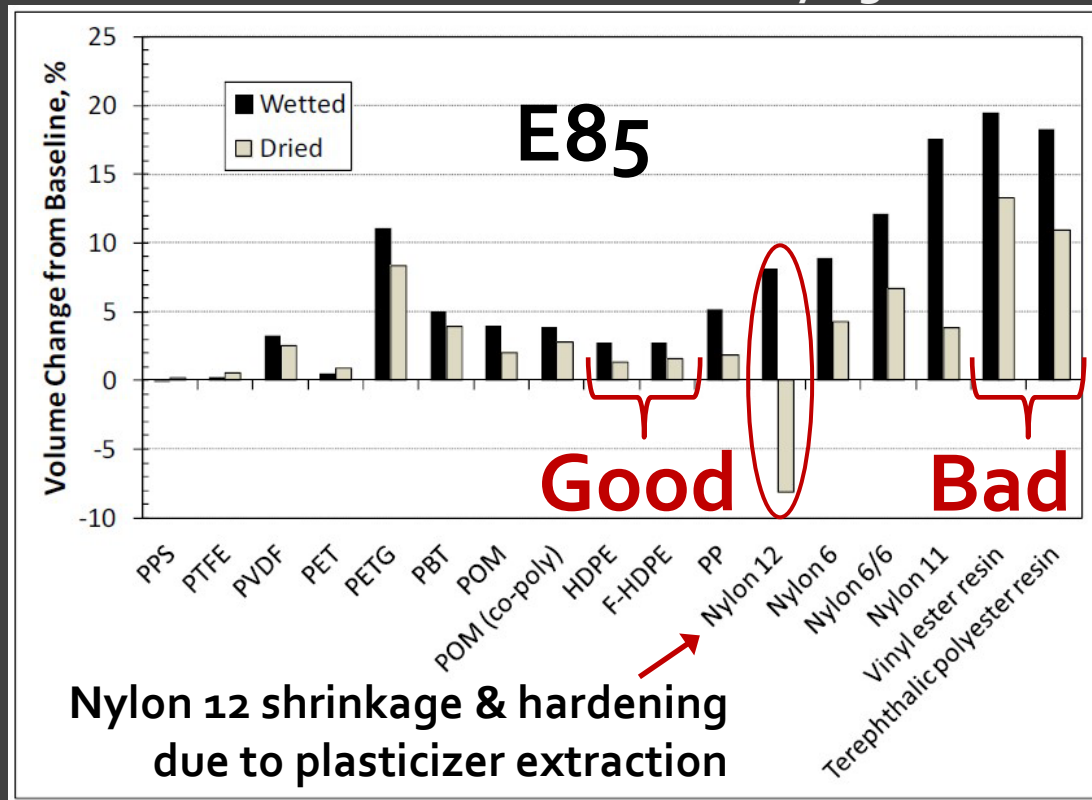
Both
epoxy
resins
failed

Best of six

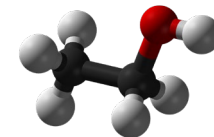
Plastics



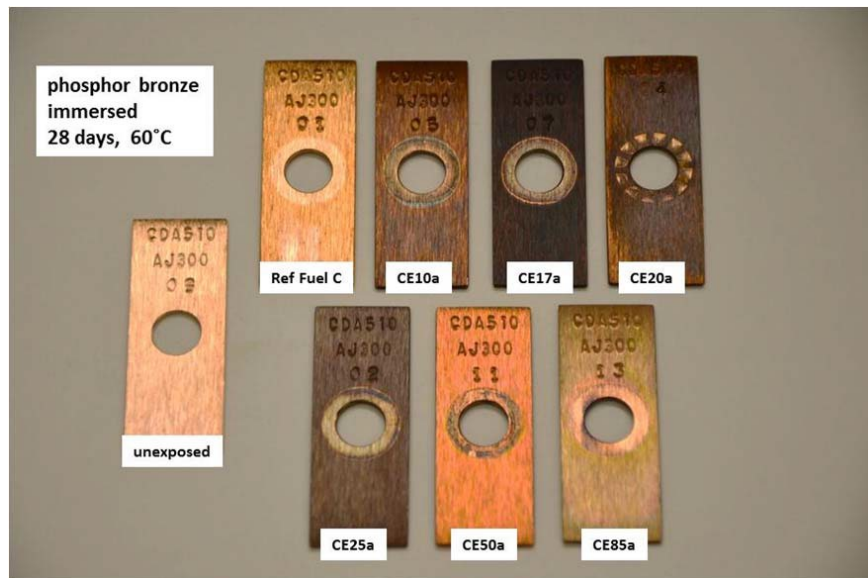
swell & fuel retained after drying



Bare Metals – Copper Alloys

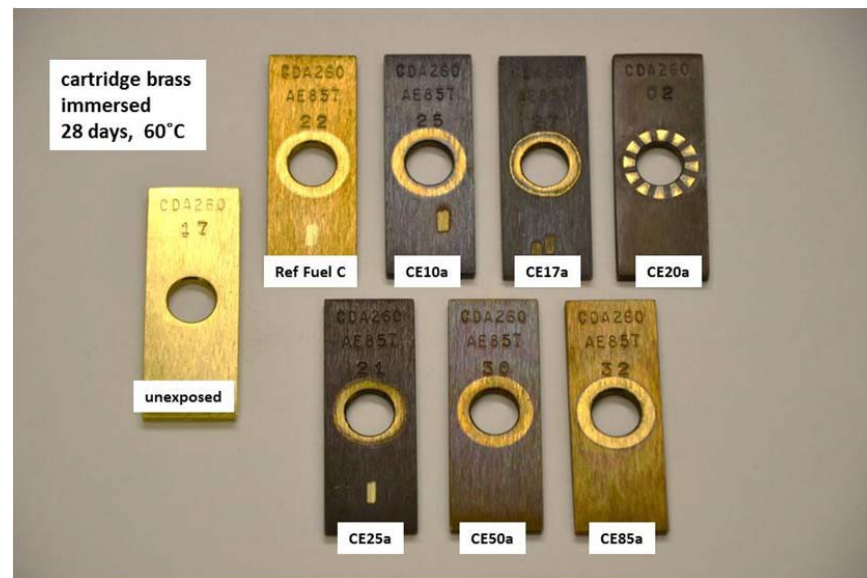


Bronze



↑
Most corrosion E25

Brass

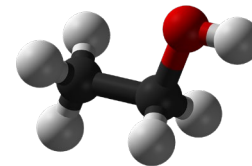


Most corrosion E10

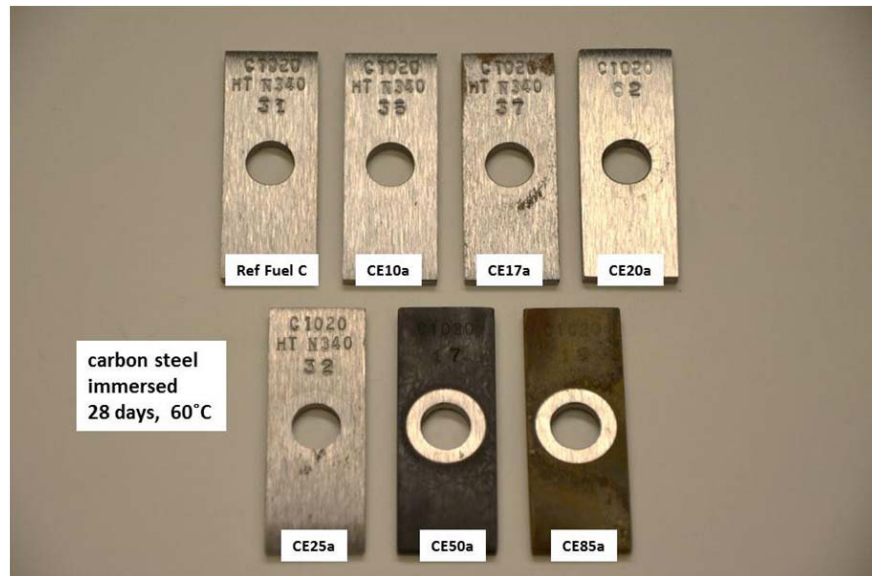


**Minor corrosion regardless of ethanol %
Thin protective film formed**

Bare Metals

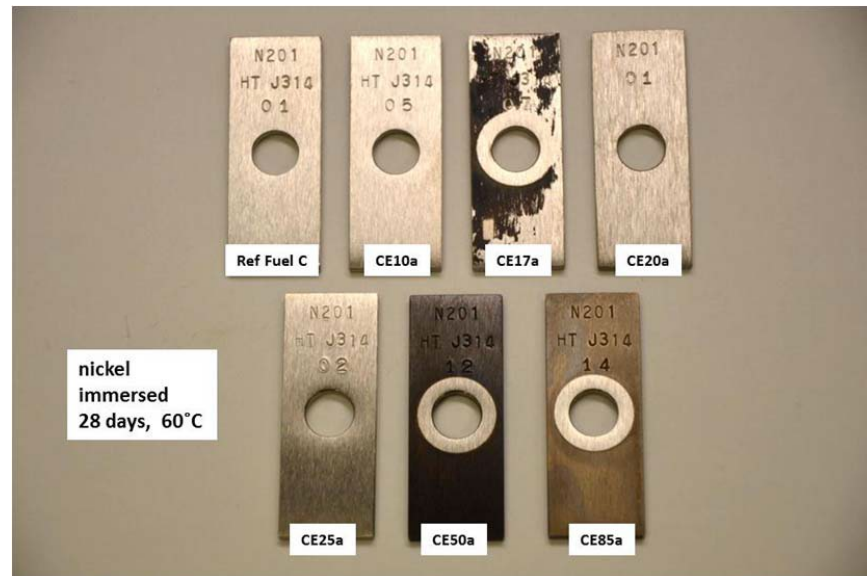


Carbon steel



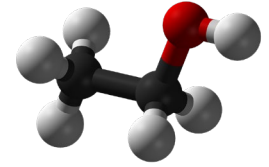
Very minor corrosion

Nickel

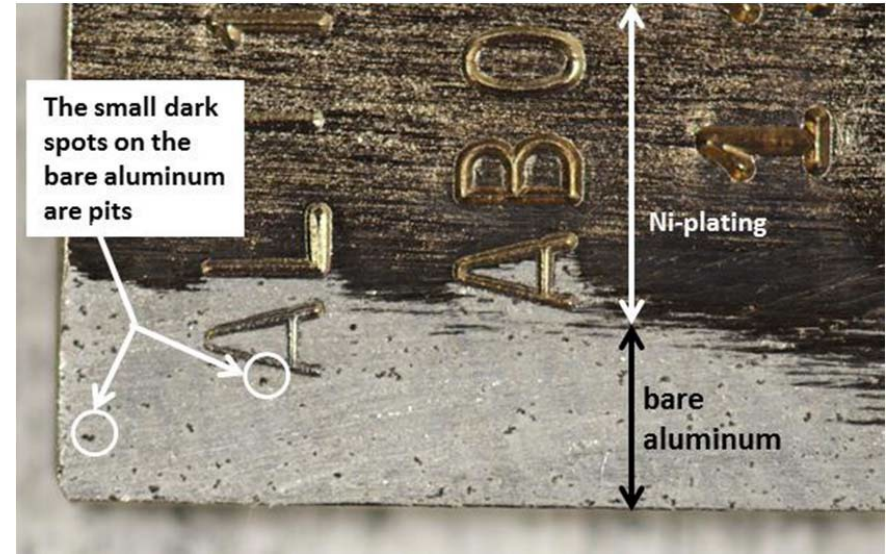
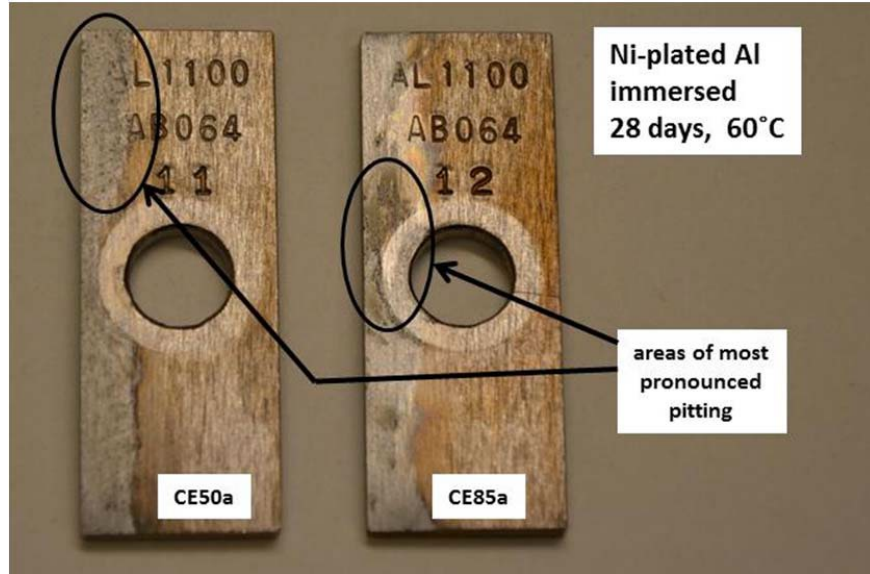


**Minor corrosion
E50 & E85**

Plated Metals

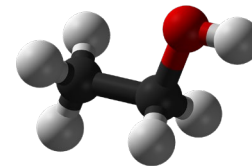


Nickel-plated aluminum w/ partially exposed Al



Pitting but no corrosion

Plated Metals

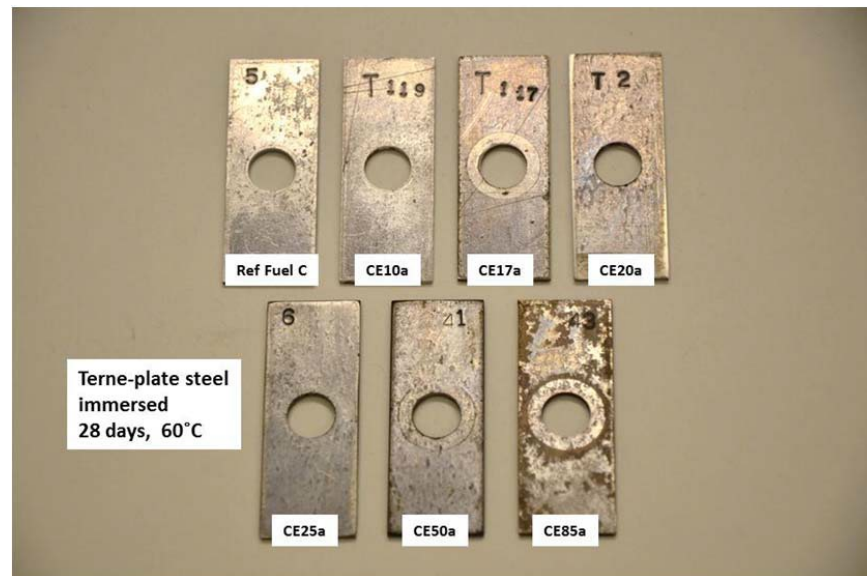


Zinc-plated steel plating intact



Modest corrosion
E85

Lead-plated steel plating intact

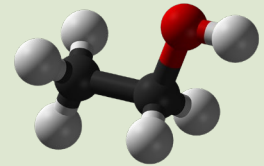


Minor corrosion

Biofuel Reactivity

E85

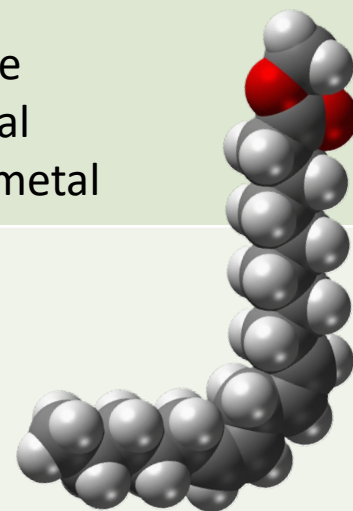
Acceptable	NOT Compatible	
Metal Steel (carbon & stainless) Bronze	Galvanized steel (zinc) Aluminum (constant contact) Terne-plated steel (lead-tin alloy coating) Lead & lead-based solder	
Nonmetal Teflon Polypropylene High-density polyethylene Some newer FRP (UL)	Natural & urethane rubber Polyurethane Polyvinyl chloride Polythiourea	Cork gasket material Epoxy resins Alcohol-based pipe dope Methyl-methacrylate plastics



Biofuel Reactivity

B100

	Acceptable	NOT Compatible
Metal	Aluminum Steel (carbon & stainless)	Lead & lead-based solder Tin Copper, brass, bronze Zinc, galvanized metal Terne-coated sheet metal
Nonmetal	Polytetrafluoroethylene (Teflon) Fluorinated plastics Nylon Fiberglass (tanks & piping)	Natural rubber Polypropylene Polyvinyl Polyethylene Neoprene Nitrile



Agenda

➤ How?

- Biofuel popularity rising
- Compatibility statutes, regulations & violations
- Chemistry of motor vehicle fuels
 - Biofuel benefits and drawbacks
- Biofuel compatibility studies
- **Demonstrating compatibility**

Compatibility Documentation

- (1) A written approval from an **independent testing organization**;
- (2) A written approval from a **state registered professional engineer**; or
- (3) A written **affirmative statement of compatibility from the manufacturer(s)**.

- UST Regulations § 2631(l)

Existing Tank Compatibility

USTs installed on or before January 1, 1984

Tanks **must be** compatible.

Not required to **demonstrate** compatibility until:

- 1) Making **repairs** or **upgrades**, or
- 2) Before **changing** the substance currently stored in the UST.

Compatibility Documentation

§ 2640.1: **Thirty days** before changing to a motor vehicle fuel containing a concentration greater than 10% ethanol or 5% biodiesel, owners or operators shall **demonstrate compatibility** by submitting written approval from an **independent testing organization**.

- UST Regulations

Acceptable Mechanisms to Demonstrate Compatibility for USTs

Key	
I	Independent testing organization approval
E	California professional engineering statement
M	Manufacturer's statement of compatibility

Component Type	Construction Type	
	Single-Walled Tank	Double-Walled Tank
Tank		
Primary Containment (includes any integral secondary containment)	I §§ 2633(b) & 2640.1	I or I & M §§ 2631(b) & (j)
Non-Integral Secondary Containment (vaults)		E § 2631(d)

Acceptable Mechanisms to Demonstrate Compatibility for USTs

Key	
I	Independent testing organization approval
E	California professional engineering statement
M	Manufacturer's statement of compatibility

Component Type	Construction Type	
	Single-Walled Tank	Double-Walled Tank
Piping		
Primary Containment (includes any integral secondary containment)	I §§ 2633(b) & 2640.1	I or I & M §§ 2631(b) & (j)
Non-Integral Secondary Containment (under-dispenser containment and sumps)	E §§ 2631(d) & 2666(b)(2)	E § 2631(d)

Acceptable Mechanisms to Demonstrate Compatibility for USTs

Key	
I	Independent testing organization approval
E	California professional engineering statement
M	Manufacturer's statement of compatibility

Component Type	Construction Type	
	Single-Walled Tank	Double-Walled Tank
Spill Containers, Overfill Prevention Equipment, and Ancillary Equipment	I, E, or M §§ 2631(l) & 2665(b)	I, E, or M § 2631(l)
Leak Detection	I or I & M §§ 2630(d), 2638(a), & 2643(f)	I or I & M §§ 2630(d) & 2638(a)



modern welding company
 BOX 1450 • OWENSBORO, KENTUCKY 42302-1450
 FABRICATORS OF METAL PRODUCTS
 (270) 685-4400 • FAX (270) 684-6972

May 2, 2018

Bio Fuels Compatibility

Modern Welding Company, Inc., a trusted and experienced steel tank manufacturer for more than 85 years, asserts that this letter shall apply to all makes and models of steel tanks that we have manufactured during any time period including all:

- GLASTEEL™ underground storage tanks
- GLASTEEL II™ underground storage tanks
- Single-wall underground storage tanks
- Double-wall underground storage tanks
- Sti-P3® underground storage tanks
- ACT-100® underground storage tanks
- ACT-100-U® underground storage tanks
- Non-UL storage vessels

All steel tanks are compatible and suitable for use with all fuel blends meeting ASTM standards, including ethanol blends from E10 to E100. All tanks are also compatible and suitable for use with all blends of biodiesel, from B2 to B100. Testing has been done proving compatibility of steel by several sources, including:

Oak Ridge National Lab sponsored by DOE in collaboration with Underwriters Laboratories; National Renewable Energy Laboratories; Southwest Research Institute; Steel Tank Institute (through Battelle). To access test reports and other information on biofuels: Visit www.steel tank.com for test data and information on biofuel testing and steel compatibility.

Tank maintenance is a critical component in any fuel storage and dispensing program. With new or different product blends being introduced to the storage tank system, proper cleaning of the tank should be accomplished. This and other pertinent maintenance may be found in the following publications:

Steel Tank Institute's Recommended Practice RP-R111, "Storage Tank Maintenance"

Petroleum Equipment Institute's, RP900-17, Recommended Practices for the Inspection and Maintenance of UST Systems.

Questions or comments you may have about our products or about this statement, please call 270-685-4400.

Sincerely,

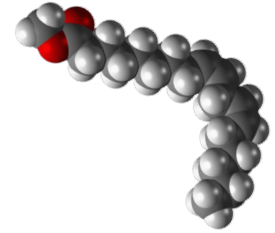
Stephen L. Fort
 V.P. Sales and Marketing

CORPORATE OFFICE: Owensboro, Kentucky (270) 685-4400

“All steel tanks are compatible and suitable for use with all fuel blends meeting ASTM standards, including ethanol blends from E10 to E100. All tanks are also compatible and suitable for use with all blends of biodiesel, from B2 to B100. Testing has been done proving compatibility of steel by several sources...”

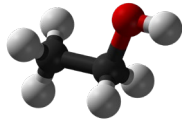
stispfa.org/resource/fuels-compatibility-statement/

Fiberglass UST Manufacturer Compatibility with biodiesel up to **B100**



Manufacturer	Compatibility Letter Available
Containment Solutions	✓
Xerxes	✓
Owens Corning	✗

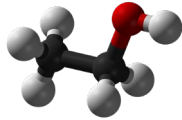
Ethanol Compatibility Timeline for Fiber Reinforced Plastic USTs



Key	
I	Underwriter Laboratories (UL) approval/listing for “Alcohol Mixtures” or “Alcohol”
M	Manufacturer’s affirmative statement of compatibility

Tank Manufacturer: Owens Corning Fiberglas™ Corp.			
Dates Manufactured	Applicable for use with Ethanol Concentrations of		
	1-10% (E1-E10)	11-30% (E11-E30)	31-100% (E31-E100)
Prior to Jan. 1981	None Available	None Available	None Available
Jan. 1981-Jan. 1984	I	None Available	None Available
Jan. 1984-Jun. 1990	I or M	None Available	None Available
Jul. 1990-Jul. 1991	I or M	I or M	I or M
Jul. 1991-Dec. 1994	I	I	I

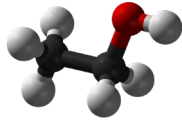
Ethanol Compatibility Timeline for Fiber Reinforced Plastic USTs



Key	
I	Underwriter Laboratories (UL) approval/listing for “Alcohol Mixtures” or “Alcohol”
M	Manufacturer’s affirmative statement of compatibility

Tank Manufacturer: ZCL Xerxes Corporation			
Dates Manufactured	Applicable for use with Ethanol Concentrations of		
	1-10% (E1-E10)	11-30% (E11-E30)	31-100% (E31-E100)
Prior to Feb. 1981	None Available	None Available	None Available
Feb. 1981-Jan. 1984	I	None Available	None Available
Jan. 1984-Apr. 1990	I or M	None Available	None Available
Apr. 1990-Jul. 1991	I or M	I or M	I or M
Jul. 1991-Present	I	I	I

Ethanol Compatibility Timeline for Fiber Reinforced Plastic USTs



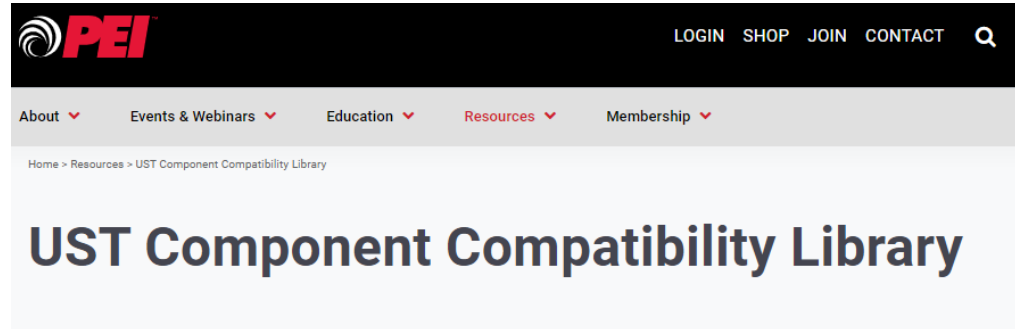
Key	
I	Underwriter Laboratories (UL) approval/listing for “Alcohol Mixtures” or “Alcohol”
M	Manufacturer’s affirmative statement of compatibility

Tank Manufacturer: Containment Solutions, Inc. (Fluid Containment Inc.)			
Dates Manufactured	Applicable for use with Ethanol Concentrations of		
	1-10% (E1-E10)	11-30% (E11-E30)	31-100% (E31-E100)
Jan. 1995 - Present	I	I	I
Other Fiber Reinforced Plastic Tank Manufacturers			
Prior to Jul. 1991	I or M	I or M	I or M
Jul. 1991 - Present	I	I	I

Compatibility Documentation

Online Sources

PEI



The screenshot shows the PEI website header with the logo and navigation links: LOGIN, SHOP, JOIN, CONTACT, and a search icon. Below the header is a secondary navigation bar with dropdown menus for About, Events & Webinars, Education, Resources (highlighted in red), and Membership. The breadcrumb trail reads: Home > Resources > UST Component Compatibility Library. The main heading of the page is "UST Component Compatibility Library".

pei.org/resources/ust-component-compatibility-library/



The screenshot shows a sidebar with navigation links: PEI Young Executives, Career Resources, UST Component Compatibility Library (highlighted with a red vertical line), and Wiki. The main content area features the heading "Compliance Letters by Manufacturer".



Compatibility Documentation

Online Sources

UL Solutions



www.ul.com/resources/apps/ul-solutions-fuel-compatibility-tool

UL fuel compatibility tool

Fueling stations and components

Helping to meet EPA, state or authorities fuel compatibility requirements.

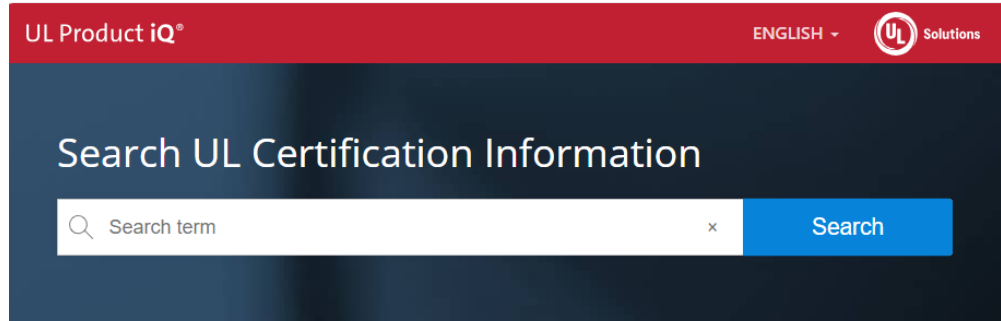


Compatibility Documentation

Online Sources

Product iQ

productiq.ulprospector.com/en



Search Database

Enter a keyword to search certification information. Your keyword can be a company name, a model number or specific terms such as a category description (CCN) or a UL Solutions file number.



Review Results

Search through the results. Your search term may appear anywhere within the associated full document, including portions that may not appear in this application.



Certification Information

Select and view the certification information for the items you find. Results may include products or components within products.

Compatibility Documentation

Online Sources

flexfuelforward.com/toolkit/flexcheck/

Flex Forward – American Coalition for Ethanol

Flex Check features nearly the entire Inventory of fuelling Infrastructure parts you'll need to consider when adding E15 or higher blends of ethanol.

Search components by manufacturer, model number, or component category (example: above ground equipment, above ground tank, overfill prevention, piping, pumping equipment, release detection, and others).

For tips on how to search efficiently, skip down below. If you have questions, [just give us a shout](#). We're here to help.

Source: National Renewable Energy Labs (NREL) reports and the American Coalition for Ethanol

[List of All Compliance Letters](#) [E15 and Flex Fuel Roadmap](#)

Manufacturer:

Nothing selected



Model:

Model

Category:

Nothing selected



Clear filters

Conclusion

December 31, 2025



26th California Unified Program
Annual Training Conference
February 26-29, 2024





Any Questions?

Amber Camarena, Environmental Scientist
State Water Resources Control Board
Office of Enforcement, UST Enforcement Unit
Amber.Camarena@waterboards.ca.gov

(916) 322-9443

26th California Unified Program
Annual Training Conference
February 26-29, 2024



Works Cited

"Alternative Diesel Fuels Reporting Summaries." California Air Resources Board, ww2.arb.ca.gov/resources/documents/alternative-diesel-fuels-reporting-summaries. Accessed Feb. 2024.

"Alternative Fueling Station Locator." U.S. Department of Energy, Alternative Fuels Data Center, afdc.energy.gov/stations. Accessed Jan. 2024.

"Biodiesel Vehicle Emissions." U.S. Department of Energy, Alternative Fuels Data Center, afdc.energy.gov/vehicles/diesels_emissions.html. Accessed Jan. 2024.

"Chemistry of Biodiesel." YouTube, uploaded by Biodiesel Education, 13 Nov. 2017, www.youtube.com/watch?v=47tGa-iOtLU.

"Compatibility of Underground Storage Tanks Storing Gasoline with Ethanol." State Water Resources Control Board, 24 July 2015, p. 3, www.waterboards.ca.gov/ust/tech_notices/docs/ethanol_tank_compatibility_letter.pdf.

"Fuel Ethanol Industry Guidelines, Specifications and Procedures." Renewable Fuels Association, July 2018, pp. 36-38, d35t1syewk4d42.cloudfront.net/file/1989/Fuel-Ethanol-Industry-Guidelines-Specifications-2018.pdf.



Works Cited (cont.)

"Handbook for Handling, Storing, and Dispensing E85 and Other Ethanol-Gasoline Blends." U.S. Department of Energy, DOE/GO-102016-4854, Feb. 2016, p. 8, afdc.energy.gov/files/u/publication/ethanol_handbook.pdf.

Kass, M. D., et al. "Intermediate Ethanol Blends Infrastructure Materials Compatibility Study: Elastomers, Metals, and Sealants." Oak Ridge National Lab., ORNL/TM-2010/326, Mar. 2011, pp. 19, 40, doi.org/10.2172/1007836.

Kass, Michael D., et al. "Compatibility Study for Plastic, Elastomeric, and Metallic Fueling Infrastructure Materials Exposed to Aggressive Formulations of Ethanol-Blended Gasoline." Oak Ridge National Lab., ORNL/TM-2012/88, May 2012, p. 9, doi.org/10.2172/1039968.

McCormick, Robert. "Biodiesel Handling and Use Guide," 6th ed. National Renewable Energy Lab., NREL/TP-4A00-86939, Sep. 2023, pp. 47-48, afdc.energy.gov/files/u/publication/biodiesel_handling_use_guide.pdf.

Roggelin, Ernest M. "Pipes and Sumps – As I See Them: Thoughts from a Florida UST Inspector." L.U.S.T.LINE, Bulletin 47, NEIWPCC, June 2004, Special Appendix, neiwpc.org/wp-content/uploads/2020/07/supple_47.pdf.

"Upgrade, New Construction, and Compatibility Requirements." California Code of Regulations, Title 23, Division 3, Chapter 16. Appendix 1, p. 5, Jan. 2019, www.waterboards.ca.gov/ust/adm_notices/fed_rec_regs/new_con_up_compat_v1_o.pdf.



Appendix



Design & Construction

USTs installed after July 1, 1991

§ 2631(b): The design and construction of all **primary containment** including any **integral secondary containment** system shall be **approved by an independent testing organization.**

- UST Regulations

26th California Unified Program
Annual Training Conference
February 26-29, 2024

Design & Construction

§ 2631(d): A **non-integral secondary containment** system shall be designed and constructed according to an **engineering specification...**
Materials used shall prevent structural weakening or damage.

- UST Regulations

26th California Unified Program
Annual Training Conference
February 26-29, 2024



Compatibility Documentation

§ 2631(j): If an independent testing organization approval does not include the compatibility of the hazardous substance stored, an owner or operator may submit a **written, affirmative statement of compatibility from the manufacturer(s).**

- UST Regulations

26th California Unified Program
Annual Training Conference
February 26-29, 2024

Compatibility Documentation

§ 2631(l): Owners or operators shall **demonstrate compatibility 30 days before** beginning to store or changing the hazardous substance, by submitting to the local agency one of the following...

- UST Regulations

26th California Unified Program
Annual Training Conference
February 26-29, 2024

Compatibility Documentation

§ 2631.1(b): For UST system components installed on or after **July 1, 2004**, the applicable approvals required shall include a list of the compatible products tested if such testing is required...

- UST Regulations

Compatibility Documentation

§ 2711(c): The owner or operator shall **notify** the local agency at least **30 days** before **changing** the **substance** currently stored in the UST. The notification shall **include compatibility documentation.**

- UST Regulations

Compatibility Documentation

§ 2712(b)(5): **Documentation** of the UST's compatibility with the stored substance shall be **maintained for as long as the system is used to store** the specific substance.

- UST Regulations

26th California Unified Program
Annual Training Conference
February 26-29, 2024