

Subject: TESTING GASOLINE FOR ETHANOL CONTENT	M-Tips No.: MT-002/21
	Last Issued : 10/13/2021

BULLETIN NOTES

This M-Tip supersedes the previously issued M-Tip listed below. The changes are noted in Red text.

Previous M-Tip	Date(s) Issued
MT-002/21	9/24/2021, 10/13/2021
MT-005/09	2009

APPLICABLE MODEL(S)/VINS

2003-2021 Mazda6	2006-2015 Mazda5	2007-2021 CX-9	2016-2021 CX-3
2004-2021 Mazda3	2006-2021 MX-5	2011-2014 Mazda2	2020-2021 CX-30
2004-2011 RX-8	2007-2012 CX-7	2013-2021 CX-5	

DESCRIPTION

Ethanol is becoming a common additive in gasoline. Gasoline containing ethanol is likely available at your local gasoline station. Typical blends of ethanol include E10 and E85.

- E10: A blend of 10% ethanol and 90% gasoline
- E85: A blend of 85% ethanol and 15% gasoline

All Mazda vehicles can run on gasoline containing up to 10% ethanol (E10) but only some 1999-2001 B3000 trucks can run on gasoline with more than 10% ethanol blended.

- E10 compatible vehicles: All Mazda vehicles
- E85 compatible vehicles: 1999-2001 B3000 Mazda trucks with the 8th VIN digit is V.

What if a customer puts E85 in there Mazda vehicle?

Symptoms include:

- Rough Running
- **Engine hard start**
- Lean Codes (**Examples: P0171 and/or P2096**)
- Misfires and/or misfire codes (**Examples: P0300, P0301, P0302, P0303 OR P0304**)
- Lack of power
- Poor fuel economy

An editorial board comprised of MNAO service staff members generates, collects, and verifies information for this publication.

To contribute repair tip ideas, send an e-mail to mtips@mazdausa.com. All contributions become property of MNAO, which assumes permission to publish them without further consideration.

- Spark knock
- Mechanical engine damage

How do I test for Ethanol in gasoline?

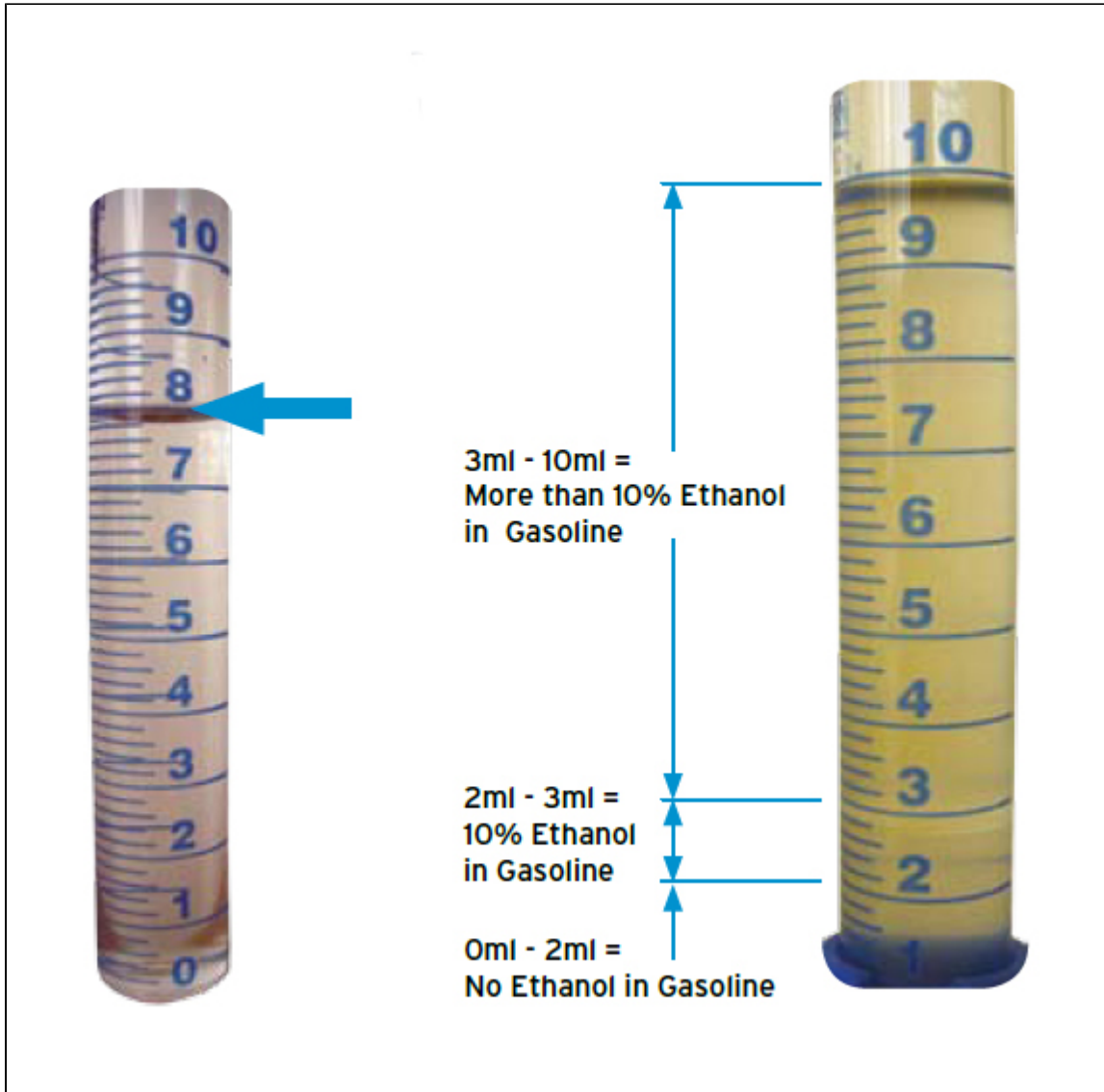
We can add water to a gasoline sample to determine how much ethanol is in the gasoline.

1. Pour 8ml of the fuel sample into the graduated cylinder.
2. Add 2ml of water to the fuel sample bringing the total height of the fuel and water mixture to 10ml.
3. Cover the open end of the graduated cylinder and shake the fuel sample.
4. Let fuel sample sit until the water and gasoline separate.
5. Inspect the water/fuel separation. If the separation line on graduated cylinder is:

- 2ml = No ethanol in gasoline
- 2ml – 3ml = 10% ethanol in gasoline
- 3ml – 10ml = More than 10% ethanol in gasoline

An editorial board comprised of MNAO service staff members generates, collects, and verifies information for this publication.

To contribute repair tip ideas, send an e-mail to mtips@mazdausa.com. All contributions become property of MNAO, which assumes permission to publish them without further consideration.



An editorial board comprised of MNAO service staff members generates, collects, and verifies information for this publication.

To contribute repair tip ideas, send an e-mail to mtips@mazdausa.com. All contributions become property of MNAO, which assumes permission to publish them without further consideration.