# M-Tips

### Mazda North American Operations Irvine, CA 92618-2922



Subject:

TESTING GASOLINE FOR ETHANOL CONTENT

M-Tips No.: MT-002/21

Last Issued: 09/24/2021

#### **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-005/09	2009	

## **APPLICABLE MODEL(S)/VINS**

2003- <mark>2021</mark> Mazda6	2006-2015 Mazda5	2007- <mark>2021</mark> CX-9	2016-2021 CX-3
2004- <mark>2021</mark> Mazda3	2006- <mark>2021</mark> 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
- Lean Codes
- · Misfires and/or misfire codes
- · Lack of power
- · Poor fuel economy
- Spark knock
- · Mechanical engine damage

Page 1 of 3

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 <a href="mtips@mazdausa.com">mtips@mazdausa.com</a>. All contributions become property of MNAO, which assumes permission to publish them without further consideration.

M-Tips No: MT-002/21

How do I test for Ethanol in gasoline?

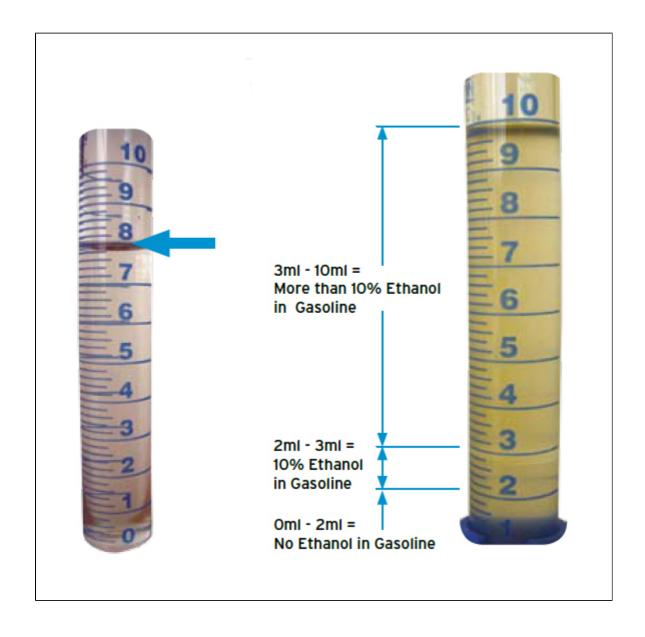
We can add water to a gasoline sample to determine how much ethanol is in the gasoline.

- 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

Page 2 of 3

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 <a href="mtips@mazdausa.com">mtips@mazdausa.com</a>. All contributions become property of MNAO, which assumes permission to publish them without further consideration.



Page 3 of 3

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 <a href="mtips@mazdausa.com">mtips@mazdausa.com</a>. All contributions become property of MNAO, which assumes permission to publish them without further consideration.