

28 September 2012

THE COLOUR OF AUSTRALIAN UNLEADED PETROL IS CHANGING TO RED/ORANGE

The Australian Institute of Petroleum (AIP) advises that petrol manufacturing and importing member companies are currently in the process of changing the industry controlled standard colour (dye) of unleaded petrol (i.e. 91 Research Octane Number grade) from Purple/Bronze to Red/Orange.

This colour change will not have any impact on the fuel's performance or on compliance with federal and state quality standards or other legislation.

All petrol sold in Australia is dyed so that it is possible to distinguish between lower octane regular grades and higher octane premium grades.

The current colour of unleaded petrol and E10 (regular unleaded petrol with 10% ethanol) is purple or bronze and the colour of premium unleaded petrol is yellow. The colour of unleaded petrol and E10 will change to red or orange starting in October 2012 but there will be a period where both red/orange and purple/bronze coloured petrol will be supplied at the bowser. It is anticipated that by late 2013 all regular unleaded petrol will be red/orange in colour. The colour of premium unleaded will remain unchanged as yellow.

PREMIUM UNLEADED PETROL UNLEADED PETROL NOW UNLEADED PETROL 2013



The primary reason for the change is to achieve alignment on the dyed colour of unleaded petrol with the majority of suppliers in the Asia Pacific region. This will assist AIP member companies, and other suppliers who import fuels, with organising the purchase of unleaded petrol cargoes from international refineries. Currently around 20% of Australia's petrol supplies are imported and this proportion is expected to increase in future.

Following is a list of questions and answers to provide you with more detail and address any specific questions you may have. If you have any further queries that are not adequately addressed by the following list please contact your current fuel supplier for further information.

Why is the colour of petrol grades standardised by the petroleum industry?

The colour of petrol grades is standardised to assist workers in the petroleum industry to rapidly identify the petrol grade when handling the product in the supply and distribution system. This is especially important when there are multiple fuel grades being delivered to a storage site or a service station. Having a standard colour agreed and used by all petrol manufacturers and importers in the market ensures there is no confusion in the identification of the petrol grade being loaded or delivered.

Does the colour change affect the performance of the fuel?

No, the colour does not affect the performance of the fuel in any way.

What will change?

The colour of unleaded petrol will change from Purple/Bronze to Red/Orange.

Will the colour of E10 unleaded petrol also be affected?

Yes, the standard colour of E10 unleaded petrol (91 Research Octane grade) will also change from Purple/Bronze to Red/Orange.

When will the colour change happen?

The colour change will commence in October 2012. During the transition period both Red/Orange and Purple/Bronze coloured petrol will be supplied to the market as the supply chain is progressively converted to the new colour.

The industry expects to have the colour change completed by 30 September 2013 after which time it is expected that all unleaded petrol and E10 unleaded petrol in the market will be Red/Orange in colour.

The colour of premium unleaded will remain unchanged as yellow.

Who is going to be impacted by this change?

The main group of people impacted by this change are employees in the petroleum industry who rely upon colour as a key means of identifying different petrol grades in the day-to-day handling of fuels through the supply and distribution system, including at service stations.

Suppliers of fuel dyes are also impacted as they maintain dye inventory for the local refineries. There are also related petroleum services that use the colour of the petrol grades to assist in rapid identification, such as fuel testing laboratories and those sampling fuel for testing purposes.

Motor trades, such as vehicle service and repairs may also be affected if they are using the colour of the fuel to identify its grade. End customers may also use the fuel colour to assist in identifying regular unleaded petrol.

This colour change has no impact on the fuel's performance.

Why is there a need to have a colour change transition period of 12 months?

There are several logistic challenges for the industry that influence the time period for the colour change including:

- Refineries will need to run down their current inventories of purple dye and then convert their dye tankage to red dye. Due to some purple dye remaining in the bottom of the dye tank it may take several refills to dilute the purple dye to an imperceptible level
- Coordination of deliveries from multiple sources into storage terminals particularly jointly operated storage facilities

Due to these challenges there may be unavoidable instances where the colour of unleaded petrol available in the market may switch back to Purple/Bronze after Red dyed fuel starts to appear, and/or extended periods where the colour sits somewhere on the Purple to Red scale. However, during this variable colour phase it will continue to be possible to readily differentiate between regular unleaded petrol and premium unleaded petrol grades.

Why Red/Orange? Why not just Red?

The natural colour of the undyed fuel can vary from colourless to an intense yellow depending upon the fuel blend components and manufacturing processes used. When red dye is added to a highly coloured base fuel the resultant colour is more likely to be identified as a reddish orange than red. While additional dye could be added to make the red colour more intense it is unnecessary to continue to add more dye once a readily identifiable and consistent colour for the product has been achieved.

The colour of the undyed fuel is also the reason why the current colour is identified as Purple/Bronze, since Bronze is the colour achieved when the purple dye is added to naturally yellow coloured fuel.

Isn't Red used for leaded grades?

Historically, for Australia, Red was the colour used to identify premium leaded petrol and then subsequently lead replacement petrol, when the use of lead was completely phased out of petrol.

However, with the withdrawal of lead replacement petrol from the market in 2006 the colour Red is now available for use in regular unleaded petrol.