

Fuel Marker Solvent Yellow 124 Precision Demonstration [DFM001:OMB # 2060-0566 Expires 3/31/2009]

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|--|-------------------|------------------------------|--------------------|------------------------------------|
| Test Method | | | | |
| Name of Method: | | | | |
| Organization ID No.(as in ASTM D XXXX-XX): | | | | |
| Laboratory Identification | | | | |
| Laboratory Name: | | | | |
| Laboratory Street Address: | | | | |
| Laboratory City: | | | | |
| Laboratory State: | | | | |
| Laboratory Zip code: | | | | |
| Laboratory Contact Person: | | | | |
| Laboratory Contact Phone Number: | | | | |
| Laboratory Contact Facsimile Number: | | | | |
| Laboratory Contact E-mail: | | | | |
| <p>Confidential Business Information Claim. A company may assert a business confidentiality claim covering the information contained in this submission. If no such claim is made the information may be made available to the public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 2. Is confidentiality claimed for the information in this submission? (Note: Please answer by typing "Yes" or "No" in the adjacent cell.)</p> | | | | |
| <p>Fuel Marker Solvent Yellow 124 Precision Criterion - a standard deviation less than 0.10 milligrams per liter, computed from the results of a minimum of 20 repeat tests made over 20 days on samples taken from a single homogeneous commercially available diesel fuel which meets the applicable industry consensus and federal regulatory specifications and which contains the fuel marker solvent yellow 124 at a concentration in the range of 0.10 to 8 milligrams per liter. The 20 results must be a series of tests with a sequential record of the analyses and no omissions. A lab facility may exclude a given sample or test result only if the exclusion is for a valid reason under good laboratory practices and it maintains records regarding the sample and test results and the reason for excluding them.</p> | | | | |
| Is fuel marker solvent yellow 124 Precision Criterion Met? | | REQUIRED DATA MISSING | | |
| standard deviation | | REQUIRED DATA MISSING | | |
| Laboratory Test Identification Number | Date (mm/dd/yyyy) | Time (hh:mm:ss am/pm) | Test Result (mg/l) | Data Entry QC Check on Test Result |

| | | | | |
|--|--|--|--|---------------------------|
| | | | | DATA REQUIRED IN CELL D20 |
| | | | | DATA REQUIRED IN CELL D21 |
| | | | | DATA REQUIRED IN CELL D22 |
| | | | | DATA REQUIRED IN CELL D23 |
| | | | | DATA REQUIRED IN CELL D24 |
| | | | | DATA REQUIRED IN CELL D25 |
| | | | | DATA REQUIRED IN CELL D26 |
| | | | | DATA REQUIRED IN CELL D27 |
| | | | | DATA REQUIRED IN CELL D28 |
| | | | | DATA REQUIRED IN CELL D29 |
| | | | | DATA REQUIRED IN CELL D30 |
| | | | | DATA REQUIRED IN CELL D31 |
| | | | | DATA REQUIRED IN CELL D32 |
| | | | | DATA REQUIRED IN CELL D33 |
| | | | | DATA REQUIRED IN CELL D34 |
| | | | | DATA REQUIRED IN CELL D35 |
| | | | | DATA REQUIRED IN CELL D36 |
| | | | | DATA REQUIRED IN CELL D37 |
| | | | | DATA REQUIRED IN CELL D38 |
| | | | | DATA REQUIRED IN CELL D39 |

| | | | |
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| | | | |
| | | | |

| |
|---------------------------|
| DATA REQUIRED IN CELL D34 |
| DATA REQUIRED IN CELL D35 |

| | |
|--|--|
| | |
| | |

arithmetic average of a continuous series of at least 10 tests
 /ent yellow 124 standard in the range of 4 to 10 milligrams per
 (ARV) of that standard by more than 0.05 milligrams per liter.
 own chemical interferences.

| | | |
|-----------------------------|--------------------------|---------------------------------------|
| <u>mg/l</u> | | |
| <u>standard</u> | | |
| NO DATA MISSING | | |
| NO DATA MISSING | | |
| | | |
| | | Concentration QC Check on ARV |
| | | ARV TOO LOW IN CONCENTRATION |
| NO DATA MISSING | | |
| Time (hh:mm:ss am/pm) | Test Result (mg/l) | Data Entry QC Check on Test Result |
| | | DATA REQUIRED IN CELL J26 |
| | | DATA REQUIRED IN CELL J27 |
| | | DATA REQUIRED IN CELL J28 |
| | | DATA REQUIRED IN CELL J29 |
| | | DATA REQUIRED IN CELL J30 |
| | | DATA REQUIRED IN CELL J31 |
| | | DATA REQUIRED IN CELL J32 |
| | | DATA REQUIRED IN CELL J33 |

| | | |
|--|--|---------------------------|
| | | DATA REQUIRED IN CELL J34 |
| | | DATA REQUIRED IN CELL J35 |

Fuel Marker Solvent Yellow 124 Precision Demonstration [DFM001:OMB #

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|---|--|
| Test Method | |
| Name of Method: | Visible Spectrophotometer |
| Organization ID No.(as in ASTM D XXXX-XX): | ASTM D XXXX-XX |
| Laboratory Identification | |
| Laboratory Name: | USEPA National and Vehicle Fuels Emissi |
| Laboratory Street Address: | 2565 Plymouth Road, Mailcode AATSG |
| Laboratory City: | Ann Arbor |
| Laboratory State: | Michigan |
| Laboratory Zip code: | 48105 |
| Laboratory Contact Person: | Joe Sopata |
| Laboratory Contact Phone Number: | 202-343-9034 |
| Laboratory Contact Facsimile Number: | 202-343-2801 |
| Laboratory Contact E-mail Address: | sopata.joe@epa.gov |
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Fuel Marker Solvent Yellow 124 Precision Criterion - a standard deviation less than 0.1 results of a minimum of 20 repeat tests made over 20 days on samples taken from a single diesel fuel which meets the applicable industry consensus and federal regulatory specifica solvent yellow 124 at a concentration in the range of 0.10 to 8 milligrams per liter. The 20 sequential record of the analyses and no omissions. A lab facility may exclude a given sar for a valid reason under good laboratory practices and it maintains records regarding the s excluding them.

| | | | |
|---|----------------------|----------|--------------------|
| <u>Is fuel marker solvent yellow 124 Precision Criterion Met?</u> | <u>PASSED</u> | | |
| standard deviation | <u>0.06</u> | | |
| Laboratory Test Identification Number | Date | Time | Test Result (mg/l) |
| ##### | 10/26/2006 | 8:00 AM | 4.000 |
| ##### | 10/27/2006 | 8:01 AM | 4.030 |
| ##### | 10/28/2006 | 8:20 AM | 3.999 |
| ##### | 10/29/2006 | 8:23 AM | 3.998 |
| ##### | 10/30/2006 | 9:00 AM | 3.905 |
| ##### | 11/1/2006 | 9:10 AM | 4.040 |
| ##### | 11/2/2006 | 9:20 AM | 4.101 |
| ##### | 11/3/2006 | 9:30 AM | 4.000 |
| ##### | 11/5/2006 | 9:40 AM | 4.000 |
| ##### | 11/6/2006 | 9:50 AM | 4.100 |
| ##### | 11/7/2006 | 10:00 AM | 4.009 |
| ##### | 11/8/2006 | 10:10 AM | 4.080 |
| ##### | 11/9/2006 | 10:20 AM | 4.101 |
| ##### | 11/10/2006 | 10:30 AM | 3.987 |
| ##### | 11/11/2006 | 10:40 AM | 3.995 |

| | | | |
|-------|------------|----------|-------|
| ##### | 11/12/2006 | 10:50 AM | 4.005 |
| ##### | 11/13/2006 | 11:00 AM | 3.901 |
| ##### | 11/14/2006 | 11:10 AM | 4.101 |
| ##### | 11/15/2006 | 11:20 AM | 4.009 |
| ##### | 11/16/2006 | 11:30 AM | 4.090 |

| |
|----|
| OK |
| OK |
| OK |
| OK |
| OK |

Fuel Marker Solvent Yellow 124 Accuracy Demonstration [DFM001:OMB # 2060-0566 Expires 3/31/2009]

| | |
|--|---|
| Test Method | |
| Name of Method: | Visible Spectrophotometer |
| Organization ID No.(as in ASTM D XXXX-XX): | ASTM D XXXX-XX |
| Laboratory Identification | |
| Laboratory Name: | USEPA National and Vehicle Fuels Emissions Laboratory/OAR |
| Laboratory Street Address: | 2565 Plymouth Road, Mailcode AATSG |
| Laboratory City: | Ann Arbor |
| Laboratory State: | Michigan |
| Laboratory Zip code: | 48105 |
| Laboratory Contact Person: | Joe Sopata |
| Laboratory Contact Phone Number | 202-343-9034 |
| Laboratory Contact Facsimile Number | 202-343-2801 |
| Laboratory Contact E-mail Address | sopata.joe@epa.gov |
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0.10 to 1 milligrams per liter Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed on a commercially available fuel marker solvent yellow 124 standard in the range of 0.10 to 1 milligrams per liter shall not differ from the accepted reference value (ARV) of that standard by more than 0.05 milligrams per liter. Individual test results shall be compensated for any known chemical interferences.

| Accuracy Criterion for 0.10-1 mg/l fuel marker solvent yellow 124 standard | | | | |
|---|----------------------------|-------------------------------|--------------------|------------------------------------|
| Is 0.10-1 mg/l fuel marker solvent yellow 124 Accuracy Criterion Met? | PASSED | | | |
| Arithmetic Average (mg/l) | 0.50 | | | |
| Name of Standard Vendor | United Color Manufacturing | | | |
| Lot Identification Number of Standard | FMSY124101006 | Concentration QC Check on ARV | | |
| Accepted Reference Value (ARV) of standard (mg/l) | 0.5 | OK | | |
| Difference between Arithmetic Average and ARV of Standard | 0.0011 | | | |
| Laboratory Test Identification Number | Date | Time | Test Result (mg/l) | Data Entry QC Check on Test Result |
| ##### | 1/13/2005 | 8:00 AM | 0.499 | OK |
| ##### | 1/13/2005 | 8:30 AM | 0.489 | OK |
| ##### | 1/13/2005 | 9:00 AM | 0.498 | OK |
| ##### | 1/13/2005 | 9:30 AM | 0.500 | OK |
| ##### | 1/13/2005 | 10:00 AM | 0.510 | OK |
| ##### | 1/13/2005 | 10:30 AM | 0.520 | OK |
| ##### | 1/13/2005 | 11:00 AM | 0.488 | OK |
| ##### | 1/13/2005 | 11:30 AM | 0.495 | OK |
| ##### | 1/13/2005 | 12:00 PM | 0.511 | OK |
| ##### | 1/13/2005 | 12:30 PM | 0.501 | OK |

4 to 10 milligrams per liter Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed on a commercially available fuel marker solvent yellow 124 standard in the range of 4 to 10 milligrams per liter shall not differ from the accepted reference value (ARV) of that standard by more than 0.05 milligrams per liter. Individual test results shall be compensated for any known chemical interferences.

| Accuracy Criterion for 4-10 mg/l fuel marker solvent yellow 124 standard | | | | |
|---|----------------------------|-------------------------------|--------------------|------------------------------------|
| Is 4-10 mg/l fuel marker solvent yellow 124 Accuracy Criterion Met? | PASSED | | | |
| Arithmetic Average (ppm) | 8.02 | | | |
| Vendor Name of Standard | United Color Manufacturing | | | |
| Lot Identification Number of Standard | FMSY124101008 | Concentration QC Check on ARV | | |
| Accepted Reference Value (ARV) of Standard (mg/l) | 8 | OK | | |
| Difference between Arithmetic Average and ARV of Standard | 0.0153 | | | |
| Laboratory Test Identification Number | Date | Time | Test Result (mg/l) | Data Entry QC Check on Test Result |
| ##### | 1/14/2005 | 8:00 AM | 7.950 | OK |
| ##### | 1/14/2005 | 8:30 AM | 7.957 | OK |
| ##### | 1/14/2005 | 9:00 AM | 7.888 | OK |
| ##### | 1/14/2005 | 9:30 AM | 8.002 | OK |
| ##### | 1/14/2005 | 10:00 AM | 8.004 | OK |
| ##### | 1/14/2005 | 10:30 AM | 8.123 | OK |
| ##### | 1/14/2005 | 11:00 AM | 8.200 | OK |
| ##### | 1/14/2005 | 11:30 AM | 8.005 | OK |
| ##### | 1/14/2005 | 12:00 PM | 8.101 | OK |
| ##### | 1/14/2005 | 12:30 PM | 7.923 | OK |