

# ACEA 2016 combined claims



|       | A3/B3        | A3/B4        | A5/B5             | C1                    | C2                    | C3             | C4               | C5         | E4                    | E6                    | E7                    | E9                    |
|-------|--------------|--------------|-------------------|-----------------------|-----------------------|----------------|------------------|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| A3/B3 |              |              | HTHS, M111FE      | SA                    | SA                    | SA             | SA               | SA, HTHS   | TBN                   | SA                    |                       | SA                    |
| A3/B4 |              |              | HTHS, M111FE      | SA                    | SA                    | SA             | SA               | SA, HTHS   | TBN                   | SA                    |                       | SA                    |
| A5/B5 | HTHS, M111FE | HTHS, M111FE |                   | SA, TBN               | SA, TBN               | HTHS, TBN      | HTHS, TBN        | HTHS       | HTHS, M111FE, TBN     | HTHS, M111FE          | HTHS, M111FE          | HTHS, M111FE          |
| C1    | SA           | SA           | SA, TBN           |                       | Phos                  | Phos           | HTHS, M111FE, NV | HTHS, Phos | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN |
| C2    | SA           | SA           | SA, TBN           | Phos                  |                       | HTHS, M111FE   | HTHS, M111FE     | HTHS       | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN |
| C3    | SA           | SA           | HTHS, TBN         | Phos                  | HTHS, M111FE          |                | SA, S NV, Phos   | HTHS       | SA, TBN               | SA, TBN, Phos         | SA, TBN               | SA, TBN               |
| C4    | SA           | SA           | HTHS, TBN         | HTHS, M111FE, NV      | HTHS, M111FE          | SA, S NV, Phos |                  | HTHS       | SA, TBN               | SA, TBN               | SA, TBN               | SA, TBN               |
| C5    | SA, HTHS     | SA, HTHS     | HTHS              | HTHS, Phos            | HTHS                  | HTHS           | HTHS             |            | HTHS                  | HTHS                  | HTHS                  | HTHS                  |
| E4    | TBN          | TBN          | HTHS, M111FE, TBN | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN | SA, TBN        | SA, TBN          | HTHS       |                       | SA, TBN               | SA, TBN               | SA, TBN               |
| E6    | SA           | SA           | HTHS, M111FE      | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN | SA, TBN, Phos  | SA, TBN          | HTHS       | SA, TBN               |                       | SA, TBN               | Phos                  |
| E7    |              |              | HTHS, M111FE      | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN | SA, TBN        | SA, TBN          | HTHS       | SA, TBN               | SA, TBN               |                       | SA, TBN               |
| E9    | SA           | SA           | HTHS, M111FE      | HTHS, M111FE, SA, TBN | HTHS, M111FE, SA, TBN | SA, TBN        | SA, TBN          | HTHS       | SA, TBN               | Phos                  | SA, TBN               |                       |

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|---|
| <b>Not compatible</b>   |
| Possible combinations   |
| Possible but needs care due to physical and chemical requirements |

HTHS = High temperature high shear viscosity

SA = Sulphated ash

TBN = Total Base Number

Phos = Phosphorus

M111FE = M111 fuel economy

NV = NOACK Volatility

S = Sulphur