The Latest Developments in the Next Generation of Oils for Light-Duty Vehicles

July 2025 RJ, Brazil



Agenda

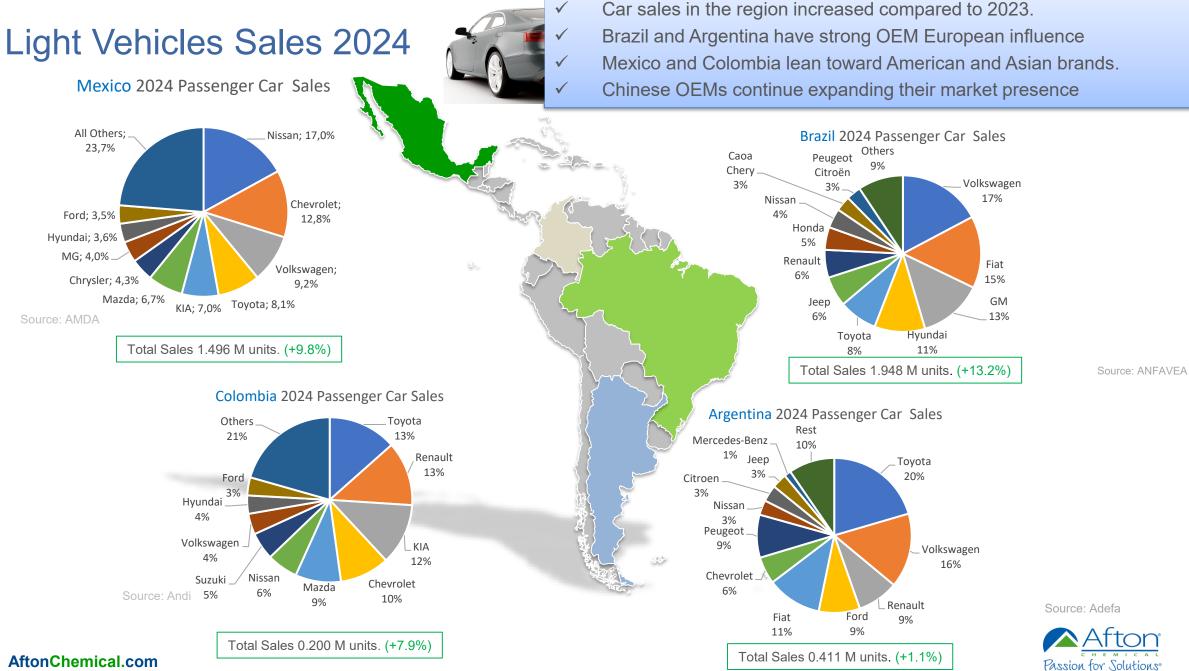
Light-Duty Vehicles Trends in Latin America

Passenger Car Engine Oil Trends in Latin America

✓ ILSAC GF-8



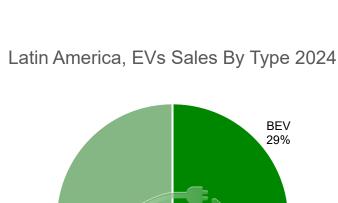




Electrification in Latin America

Key Countries - Sales 2024

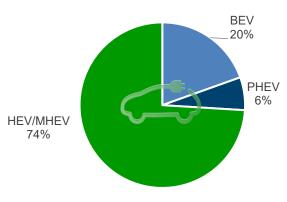
- BYD leads BEV sales (70% share) follow by GWM, Volvo, JAC, BMW and Audi
- Toyota leading HEV segment
- Colombia has the biggest HEV percentage versus total sales





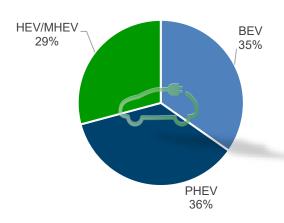
LATAM EVs Sales

410 K units



Mexico, EVs Sales by Type 2024

Brazil, EVs Sales by Type 2024





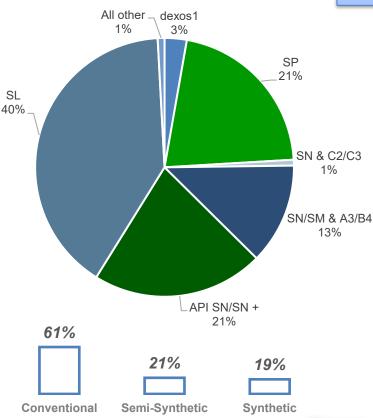
PHEV.

HEV,MHEV_

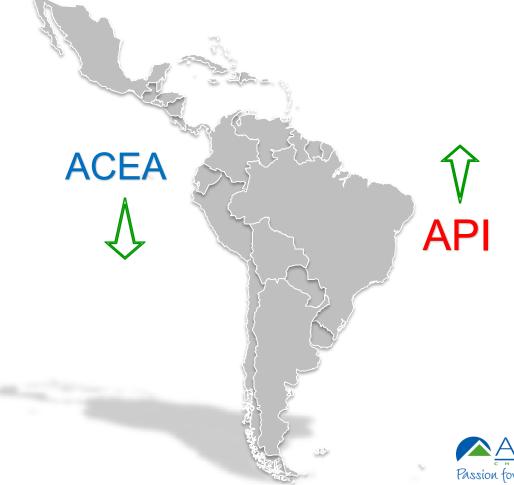
71%

Latin America Light –Duty Engine Oil Market Qualities

Latin America PCMO Market, 2024



- ✓ LD Engine Oils quality is improving in the region
- ✓ API products currently hold the largest market share
- ✓ In the southern LATAM markets, ACEA-compliant LD lubricants remain highly relevant
- ✓ synthetic and synthetic blend lubricants are gaining momentum, increasing their share in the segment
- ✓ API SL lubricants still dominate, but their market participation is gradually declining



Source: Kline/ Afton estimations

ILSAC GF-8



ILSAC GF-8 Status

- In December, ILSAC official requested a new category upgrade to GF-8
- Target first license date is Q3 2028 with acknowledgement that timing may slip
 - ▲ It is widely expected for first licensing to slip at least into 2029
 - ▲ Seq. VH estimated lifetime is limiting factor
- New test developments in progress or under consideration
 - ▲ Seq. IIIH will continue with rebuilt engines
 - Seq. VH will be replaced with Seq. VJ, under development by Ford
 - ◆ Seq. VIE and VIF will be replaced with Seq. VIG, presumably, under development by task force
 - Rebuilt engines, potentially with different components, and an updated test procedure
 - Goal include increasing candidates/engine and eliminated Seq. VIF
 - Seq. IX Aged with new E10 fuel



ILSAC / API

Specification Insights







✓ ILSAC GF-8 and API SR* are targeted for introduction in Q3 2028



















dexos™1 Gen 4



dexosTM1

Specification Insights

- GM's objective: move towards higher quality, value added fluids
 - ▲ Concerns: deposits, deposits
- dexos™1 Gen 4 is expected to launch in late 2027 or early 2028
 - ▲ Improved cleanliness, fuel economy, LSPI and shear stability
 - ▲ New GM tests GMOD, GMSPI and GMOEE
 - ▲ All new GM IVD test
 - ▲ Adopt new GF-8 tests Seq. VJ, Seq. VIx
 - ▲ Emphasis on SAE 0W-30

Increase value

Dual licensing opportunities





GM dexos™1 Gen 4 Overview

Replacement tests	Comment	Purpose
GMOD	New GDI engine New parameters, like EOT HTHS and Noack	Oxidation , Deposit Control and Shear Stability
GMSPI3	New test fuel	LSPI with E10 fuel
Seq. VJ	New API Seq. VJ test	Sludge , Varnish Control
Seq. VIE	New API Seq. VIG test	Fuel Economy
GMOEE	New vehicle; introduce a bench test and algorithm	Fuel Economy
GMTC	New GTDI engine	Turbo Deposit Control
GMAER	Depending on timing and budget allows	Aeration
New tests		
GM IVD	All new engine test	Deposit Control
MTM	Revive bench wear test	Wear Control



Summary

- The new vehicle market in Latin America is experiencing sustained growth.
- Electric vehicles sales continue to rise, with hybrid models playing a key role.
- Although the quality of passenger vehicle engine lubricants has improved in the region, there is still considerable room for more high-quality lubricants.
- Despite the growing demand for electric vehicles, interest in the development of new specifications for internal combustion engine lubricants continues.
- The demand for low-viscosity and synthetic lubricants continues to rise, delivering enhanced fuel economy and extended oil drain intervals.
- Future passenger car engine oils will need to meet new performance standards aligned with enhanced efficiency and environmental sustainability











