# Electric Vehicles Fluids: Market Analysis and Opportunities (Commercial Volume)

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1st edition

Accelerating decarbonization efforts in the commercial vehicle (CV) sector are promoting the deployment of low- and zero-emission technologies. Electrification remains a viable option for CV applications. Electrification of commercial vehicles will drive technological innovation, as performance requirements for the various fluids consumed in electric CVs are different from those used in conventional Internal Combustion Engine (ICE) vehicles. EVs will herald a new lubricants market niche focused on the lubrication needs of EVs specifically used in commercial applications.

**Regional Coverage:** 

- China
- Europe
- United States
- Japan

# **SCOPE**

- Assessment of the current and projected electric CV fleet in terms of overall size, technologies used, and key OEMs
- Analysis of fluid requirements for different EV technologies
- Assessment of the impact of various EV technologies such as edrivelines and e-axles on EV fluid specifications and demand
- Electric CV maintenance and fluid change practices and the resulting demand for electric CV fluids (including fuel cell vehicles)
- Analysis of evolving dependencies among the various stakeholders in the electric commercial vehicle supply chain
- Identification of market opportunities and challenges

FEATURES CONSTRUCTION AND MINING SECTORS



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#### Introduction

### **Executive Summary**

An overview of the report findings

### **Country Profiles**

 Detailed profiles of four markets (listed in Table 1) will be provided, including the following information:

# **Electric Commercial Vehicle Fleet Size** and Growth

Description of current electric commercial vehicle fleet by:

- Major segment: on-highway, off-highway (construction and mining)
- Electric powertrain type: BEV, FCV, HEV/MHEV and PHEV)
- Decarbonization policies and 2040 outlook



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# Trends in Electric Commercial Vehicle Powertrain Technologies

Description of current and emerging EV architectures and trends in electric CVs

- Analysis of battery technology trends: optimization, energy density, new materials
- Description of thermal management systems including battery, e-motors
- Description of electric powertrain technologies and future technological development
- Technology focus of leading EV OEMs, introduction of new models, and their relationship with lubricants suppliers and Tier 1 suppliers

### **Electric Vehicles Fluids Market Analysis**

Engine oils, transmission fluids, coolants, and grease markets will be profiled, covering the topics listed below:

- Current and future OEM specifications
- Maintenance practices and drain intervals
- Overall demand and splits by factory fill versus service fill

### **Market Appraisal**

- Impact of technological evolution in electric vehicle fluids demand
- Implications for lubricants industry participants
- Market opportunities and challenges
- Long-term outlook (2040)

### TABLE 1. LIST OF COUNTRIES/REGIONS

China

Europe (France, Germany, United Kingdom)

The United States

Japan



### REPORT BENEFITS

This report assists lubricants industry participants in identifying opportunities and challenges within the EV fluids market for commercial vehicles. It will also serve as an invaluable tool in the strategic planning process. Specifically, the report helps subscribers:

Develop an understanding of the emerging EV technologies that are reshaping the commercial vehicles fluids market

Assess current and future demand for various EV fluids in commercial vehicles fleets based on maintenance and fluid change practices Understand the emerging performance requirements for electric CV fluids; design and develop products meeting these requirements

# **METHODOLOGY**

Kline's approach places principal emphasis on primary research techniques to ensure that the foundation of business intelligence and insight is accurate, current, and reliable. Building on our 60-plus years in the business and leveraging our worldwide network of offices, our teams of seasoned professionals draw upon pragmatic industrial and commercial experience to understand and interpret global impacts and local perspectives.

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