Certification Summary Information Report

Manufacturer	CZV Inc	**Manufacturer Code**	CZV
Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1
Certificate Number	VCZVV02.9CJP-001	**CARB Executive Order #**	--
Certificate Issue Date	08/14/2026	**Certificate Revision Date**	--
Certificate Effective Date	08/14/2026	**Conditional Certificate**	No
CSI Revision #	--	**CSI Submission/Revision Date**	08/14/2026 12:01:50 PM
Model Year	2027		

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test Group Information

CSI Type	Update for Correction	**Running Change Reference Number**	--
GHG Exempt Status	Small Business Administration Exemption		

Drive Sources and Fuel(s)

Drive Source #1: Combustion Engine

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Gasoline	Multipoint/sequential fuel injection	No

Drive Source #2: Electric Motor

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Electricity	--	No

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	**Rechargeable Energy Storage System Indicator**	Yes
Multiple Fuel Combustion	--	**Off-board Charge Capable Indicator**	No
Fuel Cell Indicator	No	**EPA Vehicle Class**	LDV
Federal Clean Fuel Vehicle	No	**Federal Clean Fuel Vehicle Standard**	--
Federal Clean Fuel Vehicle ILEV	No	**California Partial Zero Emissions Vehicle Indicator**	--
Durability Group Name	TCZVHHGNNCJP	**Durability Group Equivalency Factor**	1
Reduced Fee Test Group	No	**Certification Region Code(s)**	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	08/31/2026	**CAP2000 Conditional Certificate?**	No
Independent Commercial Importer?	No	**Alternative Fuel Converter Certificate?**	No
SFTP Federal Composite Compliance Identifier	Not Applicable	**SFTP Tier 2 Composite CO Option**	No
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	**OBD Demonstration Vehicle Test Group**	VCZVV02.9CJP
Test Group OBD Compliance Level	Partial - with deficiencies	**Number of Test Group OBD Deficiencies**	2
OBD Deficiencies Comments	CARB 27MY OBD Approved per letter: E-26-197. 2 Deficiencies: 1) Misfire and 2) J1979-2.		
Mfr Test Group Comments	Czinger will use, according to CFR 86.1811-17, the SFTP stand-alone option specified in 13 CCR 1961.2 (a)(7)(A)1 of the LEV III program to demonstrate compliance with EPA's SFTP standards.		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Evaporative/Refueling Family Information

Evaporative Summary Information Type	New	**Submission/Correction Date**	04/13/2026 06:43:56 PM
Integrated ORVR?	Yes	**Fuel(s)**	Gasoline
Multiple Fuel Storage	--		
Bladder Fuel Tank?	No		
Fuel Tank Material	Metal	**Fuel Tank Material Description**	--
Fill Pipe Seal Type	Liquid seal		
Air Intake System Vapor Storage Device?	Yes	**Air Intake System Vapor Storage Device Description**	Carbon filter (HC Trap) on air inlet next to air filter
Fuel System Vapor Storage Canister?	Yes	**Other Vapor Storage**	--
Fuel System Vapor Storage Canister(s) Total Working Capacity (grams)	130	**Number of Primary Canisters**	1
Number of Bleed Canisters	0	**Bleed Canister Total Working Capacity (grams)**	--
Mfr Evaporative/Refueling Family Comments	--		

Leak Family Details

Leak Family Indicator	No		
Canister Bleed Test Indicator	Yes	**Applicability of Evaporative Canister Bleed Test**	50 State
Evaporative Canister Bleed Test Comments	--		
CARB Fuel Only (Rig) Test Indicator	No	**Applicability of CARB Fuel Only (Rig) Test**	--
CARB Fuel Only (Rig) Test Comments	--		

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
CZV Inc	1 - CZINGER	2 - Czinger 21C V Max	California + CAA Section 177 states	Part-time 4-Wheel Drive	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	No
CZV Inc	1 - CZINGER	4 - Czinger 21C Spyder	California + CAA Section 177 states	Part-time 4-Wheel Drive	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	No
CZV Inc	1 - CZINGER	1 - Czinger 21C	California + CAA Section 177 states	Part-time 4-Wheel Drive	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	No
CZV Inc	1 - CZINGER	4 - Czinger 21C Spyder	Federal	Part-time 4-Wheel Drive	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	No
CZV Inc	1 - CZINGER	1 - Czinger 21C	Federal	Part-time 4-Wheel Drive	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	No
CZV Inc	1 - CZINGER	2 - Czinger 21C V Max	Federal	Part-time 4-Wheel Drive	Automated Manual-Selectable (e.g. Automated Manual with paddles)	7	No

Engine Description

Hybrid Type	IC Engine/Electric Motor	**Hybrid Description**	3-Phase Radial Flux Permanent Magnet Synchronous Motor/Generator 3 in total (2 traction, 1 MGU)
Engine Type	4-Stroke Spark Ignition	**Mfr Engine Description**	Twin turbo, conventional spark ignition internal combustion engine.
Engine Block Arrangement	V-shaped engine	**Mfr Engine Block Arrangement Description**	--
Camless Valvetrain Indicator	No	**Oil Viscosity/Classification**	10W40
Number of Cylinders/Rotors	8	**Mechanically Variable Compression Ratio Indicator**	N

After Treatment Device(s) (ATD)

ATD Number	ATD Type	ATD Precious Metal	Substrate Material	Substrate Construction
1	Three-way catalyst	Palladium + Rhodium	Metal	Monolith
2	Three-way catalyst	Palladium + Rhodium	Metal	Monolith

Mfr After Treatment Device (ATD) Comments	Number of Catalysts: One can per cylinder bank, two cans in total. Each can contains two monolith, one front and one rear.
Direct Ozone Reduction (DOR) Device	Not Equipped
Mfr Emission Control Device Comments	--

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Engine Configuration Number 1

Engine Displacement (liters)	2.9	**Engine Rated Horsepower**	750
Number of Inlet Valves Per Cylinder	2	**Number of Exhaust Valves Per Cylinder**	1
Air Aspiration Method	Turbocharged	**Number of Air Aspiration Devices**	2
Air Aspiration Device Configuration	Parallel	**Charge Air Cooler Type**	Liquid
Air Aspiration Drive Method(s)	Mechanical		
Cylinder Deactivation	No		
Cylinder Deactivation Description	--		
Variable Valve Timing	No		
Variable Valve Timing System Description	--		
Variable Valve Lift?	No		
Variable Valve Lift System Description	--		
Number of Knock Sensors	4	**Number of Air/Fuel Sensors**	4
Air/Fuel Sensor # 1 Type	Heated oxygen	**Air/Fuel Sensor # 1 Description**	--
Air/Fuel Sensor # 2 Type	Heated oxygen	**Air/Fuel Sensor # 2 Description**	--
Air/Fuel Sensor # 3 Type	Heated oxygen	**Air/Fuel Sensor # 3 Description**	--
Air/Fuel Sensor # 4 Type	Heated oxygen	**Air/Fuel Sensor # 4 Description**	--
Mfr Air/Fuel Sensor Comments	--		
Exhaust Gas Recirculation	No	**Cooled Exhaust Gas Recirculation**	No
EGR Type	--	**Exhaust Gas Recirculation Description if 'Other'**	--
Closed Loop Air Injection System	No		
Air Injection Type	Not Applicable	**Air Injection Type if 'Other'**	--
Mfr Engine Configuration Comments	Twin turbo. turbos working in parallel - one turbine per bank		

Official Test Numbers

Test Group Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Electricity	SCZV10088240	SCZV10088239	SCZV10088233	SCZV10088234	SCZV10088238	--	--	--	--	--
Gasoline	SCZV10088240	SCZV10088239	SCZV10088233	SCZV10088234	SCZV10088238	13.1	10.3	16.1	286.1	--

SFTP LEV-III Official Test Numbers

Test Group Fuel	FTP	US06	SC03
Gasoline	SCZV10088240	SCZV10088239	SCZV10088233

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Hybrid Electric Vehicle And Fuel Cell Information

Rechargable Energy Storage System	Battery(s)	**Rechargable Energy Storage System, if Other**	--
Battery Type	Lithium Ion	**Number of Battery Packs**	1
Total Voltage of Battery Packs	806	**Battery Energy Capacity**	5.25
Battery Specific Energy	58.3	**Battery Charger Type**	On-Board
Number of Capacitors	--	**Capacitor Rating (In Farads)**	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Not applicable		
Regenerative Braking Source	--	**Driver Controlled Regenerative Braking**	--
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	2		
Motor/Generator Type 1	AC Induction	**Rated Motor/Generator Power**	200
Motor/Generator Type 2	AC Induction	**Rated Motor/Generator Power**	200
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	**Usable H2 Fill Capacity (kg)**	--
Mfr Hybrid Electric/ Electric Vehicle Comments	3-Phase Radial Flux Permanent Magnet Synchronous Motor/Generator, MGU (1 pc): 201 HP, Wheel motors (2 pcs): 268 HP each 3x Electric Motors (1x Advanced axial flux Motor Generator Unit (MGU) + 2x high output electric motors with torque-vectoring function for efficient wheel control		

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Emission Data Vehicle Information

Vehicle ID / Configuration	4C9PBPEKXRL561002 / 0	**Manufacturer Vehicle Configuration Number**	0
Original Test Group Name	SCZVV02.9CJP	**Original Evaporative/Refueling Family**	--
Original Test Vehicle Model Year	2025		

Vehicle Model

Represented Test Vehicle Make	Czinger	**Represented Test Vehicle Model**	21C

Leak Family Details

Leak Family Identifier	--	**Leak Family Name**	--

Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Combustion Engine	Gasoline
2	Electric Motor	Electricity
3	Electric Motor	Electricity
4	Electric Motor	Electricity

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	Fuels Combusted Separately
Fuel Cell Indicator	No	**Rechargeable Energy Storage System Indicator**	Yes
Rechargeable Energy Storage System	Battery(s)	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	No		
Odometer Correction -- Initial	0	**Odometer Correction Factor**	0
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles		
Odometer Correction Units	Miles		
Engine Code	SK32	**Rated Horsepower**	750
Displacement (liters)	2.9		
Air Aspiration Method	Turbocharged	**Air Aspiration Method, if 'Other'**	
Number of Air Aspiration Devices	2	**Air Aspiration Device Configuration**	Parallel
Charge Air Cooler Type	Liquid	**Drive Mode While Testing**	4-Wheel Drive
Shift Indicator Light Usage	Not eqipped	**Aged Emission Components**	4,000 (mi)
Curb Weight (lbs)	3635	**Equivalent Test Weight (pounds)**	3750
GVWR (lbs)	4076	**N/V Ratio**	3.3
Axle Ratio	3.32		
Transmission Type	Automatic	**# of Transmission Gears**	7
Transmission Lockup	No	**Creeper Gear**	No

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Dynamometer Coefficients:

Coefficient Category	Target Coefficients A (lbf)	Target Coefficients B (lbf/mph)	Target Coefficients C (lbf/mph**2)	Set Coefficients A (lbf)	Set Coefficients B (lbf/mph)	Set Coefficients C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	34.823	1.03255	0.037608	4.42	0.8055	0.03798	24.1
Cold CO	34.82	1.0326	0.37608	38.302	1.1363	0.041371	N/A
US06	34.823	1.03255	0.037608	4.42	0.8055	0.03798	N/A

Emission Control Device Comments --

Manufacturer Test Vehicle Comments The vehicle is not defined as a PHEV, Electric motor 3x Electric Motors (1x Advanced axial flux Motor Generator Unit (MGU) + 2x high output electric motors with torque-vectoring function for efficient wheel control)

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088240**	**Test Procedure**	**31 - Federal fuel 3-day exhaust**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	09/12/2024	**Fuel**	Gasoline
Fuel Batch ID	175259	**Fuel Calibration Number**	4205
Vehicle Class	LDV/Passenger Car	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4176	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	682.815	--
CO BAG 1 (Bag 1 Carbon Monoxide)	0.4487	--
FE BAG 1 (Bag 1 Fuel Economy)	12.691	12.691
CH4 BAG 1 (Bag 1 Methane)	0.01	--
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0969	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	752.215	--
CO BAG 2 (Bag 2 Carbon Monoxide)	0.3763	--
FE BAG 2 (Bag 2 Fuel Economy)	11.529	11.529
CH4 BAG 2 (Bag 2 Methane)	0.0011	--
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0	--
CO2 BAG 3 (Bag 3 Carbon Dioxide)	521.514	--
CO BAG 3 (Bag 3 Carbon Monoxide)	0.5194	--
FE BAG 3 (Bag 3 Fuel Economy)	16.616	16.616
CH4 BAG 3 (Bag 3 Methane)	0.0052	--
NMOG BAG 3 (Bag 3 Non-methane organic gases)	0	--
CO2 BAG 4 (Bag 4 Carbon Dioxide)	732.364	--
CO BAG 4 (Bag 4 Carbon Monoxide)	0.3166	--
FE BAG 4 (Bag 4 Fuel Economy)	11.843	11.843
CH4 BAG 4 (Bag 4 Methane)	0.0006	--
NMOG BAG 4 (Bag 4 Non-methane organic gases)	0	--
METHANE (CH4 - Methane)	0.0039	--
CO (Carbon Monoxide)	0.4127	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.9014	--
DT-EER (Drive Trace Energy Economy Rating)	0.0282	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.7679	--
HCHO (Formaldehyde)	0.00066	--
MFR FE (Manufacturer Fuel Economy)	12.96	12.96
NOX (Nitrogen Oxide)	0.005	--
N2O (Nitrous Oxide)	0.001	--
HC-NM (Non-methane Hydrocarbon)	0.0202	--
NMOG (Non-methane organic gases)	0.02222	--
PM (Particulate Matter)	0.0009	--
HC-TOTAL (Total Hydrocarbon)	0.0232	--

Certification Summary Information Report

Test Group VCZVV02.9CJP **Evaporative/Refueling Family** VCZVR0130AA1

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	668.9049	670

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	668.9	--

Manufacturer Test Comments FE in miles per gallon. All emissions results in grams per mile. Vehicle driven in sport mode.

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.41	--	--	--	0.16	--	0.6	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	HCHO	0.0007	--	--	--	0.0002	--	0.001	0.004	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	METHANE	0.0039	--	--	--	0	--	0.004	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	N2O	0.001	--	--	--	0	--	0.001	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0222	--	--	--	0.0062	--	0.028	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0272	--	--	--	--	--	0.038	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.005	--	--	--	0.0047	--	0.01	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	CO	0.41	--	--	--	0.16	--	0.6	1.7	Pass
CA	150,000 miles	California LEV-III ULEV50	HCHO	0.0007	--	--	--	0.0005	--	0.001	0.016	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0222	--	--	--	0.0062	--	0.028	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0272	--	--	--	--	--	0.038	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.005	--	--	--	0.0047	--	0.01	99.000	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088241**	**Test Procedure**	**31 - Federal fuel 3-day exhaust**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	61 - Tier 2 Cert Gasoline
Test Date	08/21/2024	**Fuel**	Gasoline
Fuel Batch ID	A58531	**Fuel Calibration Number**	2351
Vehicle Class	LDV/Passenger Car	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4176	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	791.022	--
FE BAG 1 (Bag 1 Fuel Economy)	11.326	11.326
CO2 BAG 2 (Bag 2 Carbon Dioxide)	592.18	--
FE BAG 2 (Bag 2 Fuel Economy)	15.132	15.132
CO2 BAG 3 (Bag 3 Carbon Dioxide)	566.74	--
FE BAG 3 (Bag 3 Fuel Economy)	15.818	15.818
CO2 BAG 4 (Bag 4 Carbon Dioxide)	453.928	--
FE BAG 4 (Bag 4 Fuel Economy)	19.747	19.747
METHANE (CH4 - Methane)	0.0042	--
CO (Carbon Monoxide)	0.4376	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	4.5481	--
DT-EER (Drive Trace Energy Economy Rating)	2.4123	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	7.2335	--
HCHO (Formaldehyde)	0.000696	--
MFR FE (Manufacturer Fuel Economy)	15.31	15.31
NOX (Nitrogen Oxide)	0.0043	--
N2O (Nitrous Oxide)	0.001	--
HC-NM (Non-methane Hydrocarbon)	0.0232	--
NMOG (Non-methane organic gases)	0.02552	--
HC-TOTAL (Total Hydrocarbon)	0.026	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	585.4452	586

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	585.44	--

Manufacturer Test Comments FE in miles per gallon. All emissions results in grams per mile. Vehicle driven in sport mode.

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.44	--	--	--	0.16	--	0.6	1.7	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	HCHO	0.0007	--	--	--	0.0002	--	0.001	0.004	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	METHANE	0.0042	--	--	--	0	--	0.004	0.030	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	N2O	0.001	--	--	--	0	--	0.001	0.010	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0255	--	--	--	0.0062	--	0.032	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0298	--	--	--	--	--	0.041	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0043	--	--	--	0.0047	--	0.009	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	CO	0.44	--	--	--	0.16	--	0.6	1.7	Pass
CA	150,000 miles	California LEV-III ULEV50	HCHO	0.0007	--	--	--	0.0005	--	0.001	0.016	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0255	--	--	--	0.0062	--	0.032	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0298	--	--	--	--	--	0.041	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.0043	--	--	--	0.0047	--	0.009	99.000	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088238**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/23/2023	**Fuel**	Gasoline
Fuel Batch ID	175290	**Fuel Calibration Number**	4205
Vehicle Class	LDV/Passenger Car	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4345	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.004	--
CO (Carbon Monoxide)	0.4798	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	6.8618	--
DT-EER (Drive Trace Energy Economy Rating)	0.0355	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	8.8188	--
MFR FE (Manufacturer Fuel Economy)	16.49	16.49
NOX (Nitrogen Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0015	--
NMOG (Non-methane organic gases)	0.00165	--
HC-TOTAL (Total Hydrocarbon)	0.0056	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	525.5441	999

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	525.54	--

Manufacturer Test Comments FE in miles per gallon. All emissions results in grams per mile. Vehicle driven in sport mode.

Certification Summary Information Report

Test Group VCZVV02.9CJP **Evaporative/Refueling Family** VCZVR0130AA1

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0016	--	--	--	0.0062	--	0.008	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0016	--	--	--	--	--	0.012	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0	--	--	--	0.0047	--	0.005	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0016	--	--	--	0.0062	--	0.008	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0016	--	--	--	--	--	0.012	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0	--	--	--	0.0047	--	0.005	99.000	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088242**	**Test Procedure**	**3 - HWFE**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	61 - Tier 2 Cert Gasoline
Test Date	08/21/2024	**Fuel**	Gasoline
Fuel Batch ID	A58531	**Fuel Calibration Number**	2351
Vehicle Class	LDV/Passenger Car	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4213	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.004	--
CO (Carbon Monoxide)	0.4125	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	9.0635	--
DT-EER (Drive Trace Energy Economy Rating)	0.2481	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	12.013	--
MFR FE (Manufacturer Fuel Economy)	16.71	16.71
NOX (Nitrogen Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0.0007	--
NMOG (Non-methane organic gases)	0.00077	--
HC-TOTAL (Total Hydrocarbon)	0.0048	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	536.394	537

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	536.39	--

Manufacturer Test Comments FE in miles per gallon. All emissions results in grams per mile. Vehicle driven in sport mode.

Certification Summary Information Report

Test Group VCZVV02.9CJP **Evaporative/Refueling Family** VCZVR0130AA1

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0008	--	--	--	0.0062	--	0.007	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0008	--	--	--	--	--	0.012	0.050	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0	--	--	--	0.0047	--	0.005	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0008	--	--	--	0.0062	--	0.007	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0008	--	--	--	--	--	0.012	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0	--	--	--	0.0047	--	0.005	99.000	Pass

Test # **SCZV10088243** **Test Procedure** **34 - Federal fuel 3-day evap**

Exhaust Test # for this Evap Test	SCZV10088240	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	09/12/2024	**Fuel**	Gasoline
Fuel Batch ID	142145	**Fuel Calibration Number**	5175
Vehicle Class	N/A	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4345	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.303	--

Manufacturer Test Comments E10 Evaporative Test Measurement Method Calculated (1.08 x FID Total Hydrocarbons)

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.303	0	0.303	0.325	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.303	0	0.303	0.325	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088244**	**Test Procedure**	**24 - Federal fuel refueling test (ORVR)**
Exhaust Test # for this Evap Test	SCZV10088240	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	09/06/2024	**Fuel**	Gasoline
Fuel Batch ID	175290	**Fuel Calibration Number**	4205
Vehicle Class	N/A	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4531	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value
HC (Hydrocarbon for Running Loss and ORVR)	0.041	--

Manufacturer Test Comments --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC	0.04	0.006	0	0.2	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC	0.04	0.006	0	0.2	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088245**	**Test Procedure**	**32 - Federal Fuel Running Loss**
Exhaust Test # for this Evap Test	SCZV10088240	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	09/12/2024	**Fuel**	Gasoline
Fuel Batch ID	175290	**Fuel Calibration Number**	4205
Vehicle Class	N/A	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4514	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.04	--

Manufacturer Test Comments E10 Evaporative Test Measurement Method Calculated (1.08 x FID Total Hydrocarbons)

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.04	0	0.04	0.05	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.04	0	0.04	0.05	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088239**	**Test Procedure**	**90 - US06**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/23/2024	**Fuel**	Gasoline
Fuel Batch ID	175259	**Fuel Calibration Number**	4205
Vehicle Class	LDV/Passenger Car	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4192	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	Yes

Test Results

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	519.708	--
CO BAG 1 (Bag 1 Carbon Monoxide)	1.0391	--
FE BAG 1 (Bag 1 Fuel Economy)	16.647	16.647
CH4 BAG 1 (Bag 1 Methane)	0.0012	--
NMOG BAG 1 (Bag 1 Non-methane organic gases)	0.0021	--
CO2 BAG 2 (Bag 2 Carbon Dioxide)	645.854	--
CO BAG 2 (Bag 2 Carbon Monoxide)	0.744	--
FE BAG 2 (Bag 2 Fuel Economy)	13.413	13.413
CH4 BAG 2 (Bag 2 Methane)	0.0032	--
NMOG BAG 2 (Bag 2 Non-methane organic gases)	0.00033	--
METHANE (CH4 - Methane)	0.0028	--
CO (Carbon Monoxide)	0.81	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.8614	--
DT-EER (Drive Trace Energy Economy Rating)	-0.4974	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.7942	--
HCHO (Formaldehyde)	0	--
MFR FE (Manufacturer Fuel Economy)	14.02	14.02
NOX (Nitrogen Oxide)	0.0007	--
N2O (Nitrous Oxide)	0.0001	--
HC-NM (Non-methane Hydrocarbon)	0.0007	--
NMOG (Non-methane organic gases)	0.00077	--
PM (Particulate Matter)	0.005	--
HC-TOTAL (Total Hydrocarbon)	0.0035	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	617.72	--

Manufacturer Test Comments FE in miles per gallon. All emissions results in grams per mile. Vehicle driven in sport mode.

Certification Summary Information Report

Test Group VCZVV02.9CJP **Evaporative/Refueling Family** VCZVR0130AA1

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	0.81	--	--	--	0.16	--	1	9.6	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0008	--	--	--	0.0062	--	0.007	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0015	--	--	--	--	--	0.012	0.120	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0007	--	--	--	0.0047	--	0.005	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	CO	0.81	--	--	--	0.16	--	1	9.6	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0008	--	--	--	0.0062	--	0.007	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0015	--	--	--	--	--	0.012	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.0007	--	--	--	0.0047	--	0.005	99.000	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088233**	**Test Procedure**	**95 - SC03**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	08/29/2023	**Fuel**	Gasoline
Fuel Batch ID	175290	**Fuel Calibration Number**	4205
Vehicle Class	LDV/Passenger Car	**DF Type**	EPA Assigned
Verify Test Lab ID	Automotive Testing & Development Services		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4447	**Odometer Units**	M
4WD Test Dyno	Yes	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
METHANE (CH4 - Methane)	0.0061	--
CO (Carbon Monoxide)	1.5067	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-2.0231	--
DT-EER (Drive Trace Energy Economy Rating)	0.4856	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.1383	--
HCHO (Formaldehyde)	0	--
MFR FE (Manufacturer Fuel Economy)	10.76	10.76
NOX (Nitrogen Oxide)	0.0083	--
N2O (Nitrous Oxide)	0.0001	--
HC-NM (Non-methane Hydrocarbon)	0.0001	--
NMOG (Non-methane organic gases)	0.00011	--
HC-TOTAL (Total Hydrocarbon)	0.0061	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	803.9	--

Manufacturer Test Comments FE in miles per gallon. All emissions results in grams per mile. Vehicle driven in sport mode.

Certification Summary Information Report

Test Group VCZVV02.9CJP **Evaporative/Refueling Family** VCZVR0130AA1

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 50	CO	1.51	--	--	--	0.16	--	1.7	3.2	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG	0.0001	--	--	--	0.0062	--	0.006	99.000	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NMOG+NOX	0.0084	--	--	--	--	--	0.019	0.070	Pass
Fed	150,000 miles	Federal Tier 3 Bin 50	NOX	0.0083	--	--	--	0.0047	--	0.013	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	CO	1.51	--	--	--	0.16	--	1.7	1.7	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG	0.0001	--	--	--	0.0062	--	0.006	99.000	Pass
CA	150,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0084	--	--	--	--	--	0.019	0.050	Pass
CA	150,000 miles	California LEV-III ULEV50	NOX	0.0083	--	--	--	0.0047	--	0.013	99.000	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088246**	**Test Procedure**	**65 - Evap Canister Bleed Test**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	04/10/2024	**Fuel**	Gasoline
Fuel Batch ID	175290	**Fuel Calibration Number**	4205
Vehicle Class	N/A	**DF Type**	EPA Assigned
Verify Test Lab ID	IDIADA		
E10 Evaporative Test Measurement Method	Calculated (1.08 x FID Total Hydrocarbons)		
Test Start Odometer Reading	4514	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value
HC-TOTAL-EQUIV (Total Hydrocarbon equivalent - Evap only)	0.0091	--

Manufacturer Test Comments --

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	Add DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Evap	HC-TOTAL-EQUIV	0.0091	0	0.009	0.02	Pass
CA	150,000 miles	California LEV-III Zero Evap (Option 2)	HC-TOTAL-EQUIV	0.0091	0	0.009	0.02	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Emission Data Vehicle Information

Vehicle ID / Configuration	4C9PBPEKXRL561003 / 0	**Manufacturer Vehicle Configuration Number**	0
Original Test Group Name	SCZVV02.9CJP	**Original Evaporative/Refueling Family**	--
Original Test Vehicle Model Year	2025		

Vehicle Model

Represented Test Vehicle Make	Czinger	**Represented Test Vehicle Model**	21C

Leak Family Details

Leak Family Identifier	--	**Leak Family Name**	--

Drive Sources and Fuel System Details

Drive Source and Fuel#	Drive Source	Fuel
1	Combustion Engine	Gasoline
2	Electric Motor	Electricity

Hybrid Indicator	Yes		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	Fuels Combusted Separately
Fuel Cell Indicator	No	**Rechargeable Energy Storage System Indicator**	Yes
Rechargeable Energy Storage System	Battery(s)	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	No		
Odometer Correction -- Initial	0	**Odometer Correction Factor**	0
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles		
Odometer Correction Units	Miles		
Engine Code	1C1-29BH	**Rated Horsepower**	750
Displacement (liters)	2.9		
Air Aspiration Method	Turbocharged	**Air Aspiration Method, if 'Other'**	
Number of Air Aspiration Devices	2	**Air Aspiration Device Configuration**	Parallel
Charge Air Cooler Type	Liquid	**Drive Mode While Testing**	4-Wheel Drive
Shift Indicator Light Usage	Not eqipped	**Aged Emission Components**	4,000 (mi)
Curb Weight (lbs)	3635	**Equivalent Test Weight (pounds)**	3750
GVWR (lbs)	4076	**N/V Ratio**	41.8
Axle Ratio	3.32		
Transmission Type	Automatic	**# of Transmission Gears**	7
Transmission Lockup	No	**Creeper Gear**	No

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Dynamometer Coefficients:

Coefficient Category	Target Coefficients A (lbf)	Target Coefficients B (lbf/mph)	Target Coefficients C (lbf/mph**2)	Set Coefficients A (lbf)	Set Coefficients B (lbf/mph)	Set Coefficients C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
City/Highway/Evap	34.823	1.03255	0.037608	4.42	0.8055	0.03798	24.1
Cold CO	38.305	1.13581	0.041369	-17.65	0.5131	0.04654	N/A
US06	34.823	1.03255	0.037608	4.42	0.8055	0.03798	N/A

Emission Control Device Comments This Vehicle is not a plug-in Hybrid

Manufacturer Test Vehicle Comments The vehicle is not defined as a PHEV, Electric motor 3x Electric Motors (1x Advanced axial flux Motor Generator Unit (MGU) + 2x high output electric motors with torque-vectoring function for efficient wheel control)

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088234**	**Test Procedure**	**11 - Cold CO**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	29 - Cold CO E10 Premium Gasoline (Tier 3)
Test Date	10/18/2024	**Fuel**	Gasoline
Fuel Batch ID	S-0377	**Fuel Calibration Number**	722
Vehicle Class	LDV/Passenger Car	**DF Type**	EPA Assigned
Verify Test Lab ID	VW Emission Control Test Laboratory		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4589	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	901.378	--
FE BAG 1 (Bag 1 Fuel Economy)	9.5762	9.5762
CO2 BAG 2 (Bag 2 Carbon Dioxide)	633.217	--
FE BAG 2 (Bag 2 Fuel Economy)	13.6822	13.6822
CO2 BAG 3 (Bag 3 Carbon Dioxide)	819.943	--
FE BAG 3 (Bag 3 Fuel Economy)	10.5592	10.5592
METHANE (CH4 - Methane)	0.0124	--
CO (Carbon Monoxide)	0.8138	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.7707	--
DT-EER (Drive Trace Energy Economy Rating)	0.3495	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	3.0475	--
HCHO (Formaldehyde)	0.0033	--
MFR FE (Manufacturer Fuel Economy)	11.6947	11.6947
NOX (Nitrogen Oxide)	0.0163	--
HC-NM (Non-methane Hydrocarbon)	0.1116	--
NMOG (Non-methane organic gases)	0.1226	--
HC-TOTAL (Total Hydrocarbon)	0.1236	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	742	--

Certification Summary Information Report

Test Group VCZVV02.9CJP **Evaporative/Refueling Family** VCZVR0130AA1

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	739.9857	--

Manufacturer Test Comments FE in miles per gallon. All emissions results in grams per mile. Vehicle driven in sport mode.

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	50,000 miles	Federal Tier 3 Bin 50	CO	0.81	--	--	--	0.04	--	0.8	10.0	Pass
Fed	120,000 miles	Federal Tier 3 Bin 50	HC-NM	0.11	--	1.1	--	0.0047	--	0.1	0.3	Pass
CA	50,000 miles	California LEV-III ULEV50	CO	0.81	--	--	--	0.04	--	0.8	10.0	Pass

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Test #	**SCZV10088235**	**Test Procedure**	**51 - CA fuel 50 Deg(F) exhaust test**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)
Test Date	10/17/2024	**Fuel**	Gasoline
Fuel Batch ID	S-0437	**Fuel Calibration Number**	2042
Vehicle Class	LDV/Passenger Car	**DF Type**	EPA Assigned
Verify Test Lab ID	VW Emission Control Test Laboratory		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4561	**Odometer Units**	M
4WD Test Dyno	No	**Diesel Adjustment Factor Usage**	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	**Road Speed Fan Usage**	No

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO2 BAG 1 (Bag 1 Carbon Dioxide)	793.991	--
FE BAG 1 (Bag 1 Fuel Economy)	10.875	10.875
CO2 BAG 2 (Bag 2 Carbon Dioxide)	556.049	--
FE BAG 2 (Bag 2 Fuel Economy)	15.575	15.575
CO2 BAG 3 (Bag 3 Carbon Dioxide)	682.274	--
FE BAG 3 (Bag 3 Fuel Economy)	12.693	12.693
METHANE (CH4 - Methane)	0.0068	--
CO (Carbon Monoxide)	0.4643	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.2017	--
DT-EER (Drive Trace Energy Economy Rating)	0.1158	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.9702	--
HCHO (Formaldehyde)	0.0017	--
MFR FE (Manufacturer Fuel Economy)	13.6	13.6
NOX (Nitrogen Oxide)	0.012	--
N2O (Nitrous Oxide)	0.0018	--
HC-NM (Non-methane Hydrocarbon)	0.0561	--
NMOG (Non-methane organic gases)	0.0617	--
HC-TOTAL (Total Hydrocarbon)	0.0627	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	635	--

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	634.2992	--

Manufacturer Test Comments FE in miles per gallon. All emissions results in grams per mile. Vehicle driven in sport mode.

Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NMHC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
CA	4,000 miles	California LEV-III ULEV50	CO	0.46	--	--	--	--	--	0.5	1.7	Pass
CA	4,000 miles	California LEV-III ULEV50	HCHO	0.0017	--	--	--	--	--	0.002	0.016	Pass
CA	4,000 miles	California LEV-III ULEV50	NMOG	0.0617	--	1.1	--	--	--	0.062	99.000	Pass
CA	4,000 miles	California LEV-III ULEV50	NMOG+NOX	0.0737	--	1.1	--	--	--	0.074	0.100	Pass
CA	4,000 miles	California LEV-III ULEV50	NOX	0.012	--	--	--	--	--	0.012	99.000	Pass

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Fuel Properties

Fuel Batch ID	**175290**	**Fuel Calibration Number**	**4205**
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	**Fuel Batch Calibration Date**	07/18/2023
Fuel Batch Calibration Effective Date	07/18/2023	**Fuel Batch Calibration Ineffective Date**	--
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.746
Fuel Ethanol Volume Percent (%)	9.8	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	17850
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.826	**Weight Fraction CO2**	--

Fuel Batch ID	**175259**	**Fuel Calibration Number**	**4205**
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	**Fuel Batch Calibration Date**	07/18/2023
Fuel Batch Calibration Effective Date	07/18/2023	**Fuel Batch Calibration Ineffective Date**	--
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.746
Fuel Ethanol Volume Percent (%)	9.8	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	17850
Fuel Net Heat of Combustion (E10) (MJ/kg)	41.52	**Fuel Carbon Mass Fraction (E10)**	0.826
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.826	**Weight Fraction CO2**	--

Fuel Batch ID	**A58531**	**Fuel Calibration Number**	**2351**
Test Fuel Type	61 - Tier 2 Cert Gasoline	**Fuel Batch Calibration Date**	04/20/2023
Fuel Batch Calibration Effective Date	04/20/2023	**Fuel Batch Calibration Ineffective Date**	--
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.74
Fuel Ethanol Volume Percent (%)	--	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	17949
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.86	**Weight Fraction CO2**	--

Fuel Batch ID	**S-0437**	**Fuel Calibration Number**	**2042**
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	**Fuel Batch Calibration Date**	01/26/2023
Fuel Batch Calibration Effective Date	01/26/2023	**Fuel Batch Calibration Ineffective Date**	--

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.744
Fuel Ethanol Volume Percent (%)	9.9	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	17725
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.823	**Weight Fraction CO2**	--
Fuel Batch ID	**142145**	**Fuel Calibration Number**	**5175**
Test Fuel Type	49 - Tier 3 E10 Premium Gasoline (9 RVP @Low Alt.)	**Fuel Batch Calibration Date**	10/30/2022
Fuel Batch Calibration Effective Date	09/30/2022	**Fuel Batch Calibration Ineffective Date**	--
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	0.836	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.748
Fuel Ethanol Volume Percent (%)	9.5	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	18217
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	--	**Weight Fraction CO2**	--
Fuel Batch ID	**S-0377**	**Fuel Calibration Number**	**722**
Test Fuel Type	29 - Cold CO E10 Premium Gasoline (Tier 3)	**Fuel Batch Calibration Date**	07/22/2022
Fuel Batch Calibration Effective Date	07/22/2022	**Fuel Batch Calibration Ineffective Date**	--
Carbon Weight Fraction NMHC	--	**Carbon Weight Fraction HC**	--
Exhaust Carbon Weight Fraction	--	**Fuel Methanol Volume Fraction**	--
Fuel Density (grams/cubic ft)	--	**Fuel Specific Gravity**	0.743
Fuel Ethanol Volume Percent (%)	9.7	**Fuel Net Heating Value / Fuel Net Heat of Combustion (E0) (BTU/lb)**	18055
Fuel Net Heat of Combustion (E10) (MJ/kg)	--	**Fuel Carbon Mass Fraction (E10)**	--
Fuel Blend Carbon Weight Fraction / Fuel Carbon Mass Fraction (E0)	0.833	**Weight Fraction CO2**	--

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Consolidated List of Standards

Exhaust Standards

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 3 Bin 50
Fuel	Gasoline	**Test Procedure**	Federal fuel 3-day exhaust

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.16	1.7
150,000 miles	HCHO	--	--	--	--	--	--	0.0002	0.004
150,000 miles	METHANE	--	--	--	--	--	--	0	0.030
150,000 miles	N2O	--	--	--	--	--	--	--	0.010
150,000 miles	N2O	--	--	--	--	--	--	0	0.010
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0047	99.000

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 3 Bin 50
Fuel	Gasoline	**Test Procedure**	SC03

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.16	3.2
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.070
150,000 miles	NOX	--	--	--	--	--	--	0.0047	99.000

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III ULEV50
Fuel	Gasoline	**Test Procedure**	CA fuel 50 Deg(F) exhaust test

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
4,000 miles	CO	--	--	--	--	--	--	--	1.7
4,000 miles	HCHO	--	--	--	--	--	--	--	0.016
4,000 miles	NMOG	--	--	1.1	--	--	--	--	99.000
4,000 miles	NMOG+NOX	--	--	1.1	--	--	1	--	0.100
4,000 miles	NOX	--	--	--	--	--	--	--	99.000

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III ULEV50
Fuel	Gasoline	**Test Procedure**	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.16	9.6
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0047	99.000

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III ULEV50
Fuel	Gasoline	**Test Procedure**	HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0047	99.000

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	LDV/Passenger Car	**Standard Level**	Federal Tier 3 Bin 50
Fuel	Gasoline	**Test Procedure**	US06

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.16	9.6
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.120
150,000 miles	NOX	--	--	--	--	--	--	0.0047	99.000

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III ULEV50
Fuel	Gasoline	**Test Procedure**	Federal fuel 3-day exhaust

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.16	1.7
150,000 miles	HCHO	--	--	--	--	--	--	0.0005	0.016
150,000 miles	N2O	--	--	--	--	--	--	--	0.010
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0047	99.000

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	LDV/Passenger Car	**Standard Level**	California LEV-III ULEV50
Fuel	Gasoline	**Test Procedure**	SC03

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0.16	1.7
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0047	99.000

Certification Summary Information Report

Test Group VCZVV02.9CJP **Evaporative/Refueling Family** VCZVR0130AA1

Cert Region Federal **Cert/In-Use Code** Cert
Vehicle Class LDV/Passenger Car **Standard Level** Federal Tier 3 Bin 50
Fuel Gasoline **Test Procedure** HWFE

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	NMOG	--	--	--	--	--	--	0.0062	99.000
150,000 miles	NMOG+NOX	--	--	--	--	--	1	--	0.050
150,000 miles	NOX	--	--	--	--	--	--	0.0047	99.000

Cert Region Federal **Cert/In-Use Code** Cert
Vehicle Class LDV/Passenger Car **Standard Level** Federal Tier 3 Bin 50
Fuel Gasoline **Test Procedure** Cold CO

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0.04	10.0
120,000 miles	HC-NM	--	--	1.1	--	--	--	0.0047	0.3

Cert Region California + CAA Section 177 states **Cert/In-Use Code** Cert
Vehicle Class LDV/Passenger Car **Standard Level** California LEV-III ULEV50
Fuel Gasoline **Test Procedure** Cold CO

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
50,000 miles	CO	--	--	--	--	--	--	0.04	10.0

Evaporative/Refueling Standards

Evaporative/Refueling Family VCZVR0130AA1 **Cert Region** California + CAA Section 177 states
Cert/In-Use Code Cert **Standard Level** California LEV-III Zero Evap (Option 2)
Test Procedure Federal fuel refueling test (ORVR)

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC	--	0.2	0.006

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Evaporative/Refueling Family	VCZVR0130AA1	**Cert Region**	Federal
Cert/In-Use Code	Cert	**Standard Level**	Federal Tier 3 Evap
Test Procedure	Federal fuel 3-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.325	0

Evaporative/Refueling Family	VCZVR0130AA1	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Cert	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	Federal fuel 3-day evap		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.325	0

Evaporative/Refueling Family	VCZVR0130AA1	**Cert Region**	Federal
Cert/In-Use Code	Cert	**Standard Level**	Federal Tier 3 Evap
Test Procedure	Evap Canister Bleed Test		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.020	0

Evaporative/Refueling Family	VCZVR0130AA1	**Cert Region**	Federal
Cert/In-Use Code	Cert	**Standard Level**	Federal Tier 3 Evap
Test Procedure	Federal fuel refueling test (ORVR)		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC	--	0.2	0.006

Evaporative/Refueling Family	VCZVR0130AA1	**Cert Region**	Federal
Cert/In-Use Code	Cert	**Standard Level**	Federal Tier 3 Evap
Test Procedure	Federal Fuel Running Loss		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1
Evaporative/Refueling Family	VCZVR0130AA1	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Cert	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	Federal Fuel Running Loss		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.05	0

Evaporative/Refueling Family	VCZVR0130AA1	**Cert Region**	California + CAA Section 177 states
Cert/In-Use Code	Cert	**Standard Level**	California LEV-III Zero Evap (Option 2)
Test Procedure	Evap Canister Bleed Test		

Fuel	Useful Life	Emission Name	Rounded Result	Std	Add DF
Gasoline	150,000 miles	HC-TOTAL-EQUIV	--	0.020	0

Certification Summary Information Report

Test Group	VCZVV02.9CJP	Evaporative/Refueling Family	VCZVR0130AA1

Glossary

Useful Life

4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		

Emission Name

HC-TOTAL	Total Hydrocarbon	COMB-CREE	Combined Carbon-Related Exhaust Emissions
CO	Carbon Monoxide	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
CO2	Carbon dioxide	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
CREE	Carbon-Related Exhaust Emissions	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
OPT-CREE	Optional Carbon-Related Exhaust Emissions	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
NOX	Nitrogen Oxide	LEAK-DIA	Effective Leak Diameter (inches)
PM	Particulate Matter	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
PM-COMP	SFTP Composite Particulate Matter	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only
HC-NM	Non-methane Hydrocarbon	KW-HRS	Integrated DC KW-HRS
OMHCE	Organic material Hydrocarbon Equivalent	CH4 BAG 1	Bag 1 Methane
OMNMHCE	Organic material non-methane HC equivalent	CH4 BAG 2	Bag 2 Methane
NMOG	Non-methane organic gases	CH4 BAG 3	Bag 3 Methane
HCHO	Formaldehyde	CH4 BAG 4	Bag 4 Methane
H3C2HO	Acetaldehyde	CO BAG 1	Bag 1 Carbon Monoxide
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	CO BAG 2	Bag 2 Carbon Monoxide
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	CO BAG 3	Bag 3 Carbon Monoxide
CO-COMP	SFTP Composite Carbon Monoxide	CO BAG 4	Bag 4 Carbon Monoxide
ETHANOL	C2H5OH - Ethanol	NMOG BAG 1	Bag 1 Non-methane organic gases
FE BAG 1	Bag 1 Fuel Economy	NMOG BAG 2	Bag 2 Non-methane organic gases
FE BAG 2	Bag 2 Fuel Economy	NMOG BAG 3	Bag 3 Non-methane organic gases
FE BAG 3	Bag 3 Fuel Economy	NMOG BAG 4	Bag 4 Non-methane organic gases
FE BAG 4	Bag 4 Fuel Economy	ACT-DISTANCE BAG 1	Bag 1 Actual Distance
MFR FE	Manufacturer Fuel Economy	ACT-DISTANCE BAG 2	Bag 2 Actual Distance
HC	Hydrocarbon for Running Loss and ORVR	ACT-DISTANCE BAG 3	Bag 3 Actual Distance
METHANE	CH4 - Methane	ACT-DISTANCE BAG 4	Bag 4 Actual Distance
METHANOL	CH3OH - Methanol	HC-TOTAL BAG 1	Bag 1 Total Hydrocarbon
N2O	Nitrous Oxide	HC-TOTAL BAG 2	Bag 2 Total Hydrocarbon
SPITBACK	Spitback Hydrocarbon in grams	HC-TOTAL BAG 3	Bag 3 Total Hydrocarbon
AMP-HRS	Integrated Amp-hours	HC-TOTAL BAG 4	Bag 4 Total Hydrocarbon
START-SOC	System Start State of Charge Watt-hours	WATT-HRS BAG 1	Bag 1 Watt Hours
END-SOC	System End State of Charge Watt-hours	WATT-HRS BAG 2	Bag 2 Watt Hours

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1
ACT-DISTANCE	Actual Distance Driven (miles)	WATT-HRS BAG 3	Bag 3 Watt Hours
AS-VOLT	Average System Voltage	WATT-HRS BAG 4	Bag 4 Watt Hours
CO2 BAG 1	Bag 1 Carbon Dioxide	WATT-HRS	Watt Hours
CO2 BAG 2	Bag 2 Carbon Dioxide	HC-NM BAG 1	Bag 1 Non-methane Hydrocarbon
CO2 BAG 3	Bag 3 Carbon Dioxide	HC-NM BAG 2	Bag 2 Non-methane Hydrocarbon
CO2 BAG 4	Bag 4 Carbon Dioxide	HC-NM BAG 3	Bag 3 Non-methane Hydrocarbon
NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides	HC-NM BAG 4	Bag 4 Non-methane Hydrocarbon
NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides	N2O BAG 1	Bag 1 Nitrous Oxide
DT-IWRR	Drive Trace Inertia Work Ratio Rating	N2O BAG 2	Bag 2 Nitrous Oxide
DT-ASCR	Drive Trace Absolute Speed Change Rating	N2O BAG 3	Bag 3 Nitrous Oxide
DT-EER	Drive Trace Energy Economy Rating	N2O BAG 4	Bag 4 Nitrous Oxide
Certification Region			
CA	California + CAA Section 177 states	FA	Federal
Exhaust Emission Standard Level			
B1	Federal Tier 2 Bin 1	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340
B2	Federal Tier 2 Bin 2	HDV2B250	Federal Tier 3 HD Class 2b Bin 250
B3	Federal Tier 2 Bin 3	HDV2B200	Federal Tier 3 HD Class 2b Bin 200
B4	Federal Tier 2 Bin 4	HDV2B170	Federal Tier 3 HD Class 2b Bin 170
B5	Federal Tier 2 Bin 5	HDV2B150	Federal Tier 3 HD Class 2b Bin 150
B6	Federal Tier 2 Bin 6	HDV2B0	Federal Tier 3 HD Class 2b Bin 0
B7	Federal Tier 2 Bin 7	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630
B8	Federal Tier 2 Bin 8	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570
B9	Federal Tier 2 Bin 9	HDV3B400	Federal Tier 3 HD Class 3 Bin 400
B10	Federal Tier 2 Bin 10	HDV3B270	Federal Tier 3 HD Class 3 Bin 270
B11	Federal Tier 2 Bin 11	HDV3B230	Federal Tier 3 HD Class 3 Bin 230
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	HDV3B200	Federal Tier 3 HD Class 3 Bin 200
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HDV3B0	Federal Tier 3 HD Class 3 Bin 0
L2	California LEV-II LEV	L4SULEV100	California LEV-IV SULEV100
L2OP	California LEV-II LEV Optional	L4SULEV125	California LEV-IV SULEV125
U2	California LEV-II ULEV	L4SULEV15	California LEV-IV SULEV15
S2	California LEV-II SULEV	L4SULEV150	California LEV-IV SULEV150
ZEV	California ZEV	L4SULEV170	California LEV-IV SULEV170
OT	Other	L4SULEV175	California LEV-IV SULEV175
T1	Federal Tier 1	L4SULEV20	California LEV-IV SULEV20
PZEV	California PZEV	L4SULEV200	California LEV-IV SULEV200
L2LEV160	California LEV-II LEV160	L4SULEV230	California LEV-IV SULEV230
L2ULEV125	California LEV-II ULEV125	L4SULEV25	California LEV-IV SULEV25
L2SULEV30	California LEV-II SULEV30	L4SULEV30	California LEV-IV SULEV30
L2LEV395	California LEV-II LEV395	L4SULEV75	California LEV-IV SULEV75

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1
L2ULEV340	California LEV-II ULEV340	L4SULEV85	California LEV-IV SULEV85
L2LEV630	California LEV-II LEV630	L4ULEV125	California LEV-IV ULEV125
L2ULEV570	California LEV-II ULEV570	L4ULEV200	California LEV-IV ULEV200
L3LEV160	California LEV-III LEV160	L4ULEV250	California LEV-IV ULEV250
L3ULEV125	California LEV-III ULEV125	L4ULEV270	California LEV-IV ULEV270
L3ULEV70	California LEV-III ULEV70	L4ULEV40	California LEV-IV ULEV40
L3ULEV50	California LEV-III ULEV50	L4ULEV400	California LEV-IV ULEV400
L3SULEV30	California LEV-III SULEV30	L4ULEV50	California LEV-IV ULEV50
L3SULEV20	California LEV-III SULEV20	L4ULEV60	California LEV-IV ULEV60
L3LEV395	California LEV-III LEV395	L4ULEV70	California LEV-IV ULEV70
L3ULEV340	California LEV-III ULEV340	T4B170	Federal Tier 4 MDV Bin 170
L3ULEV250	California LEV-III ULEV250	T4B150	Federal Tier 4 MDV Bin 150
L3ULEV200	California LEV-III ULEV200	T4B125	Federal Tier 4 MDV Bin 125
L3SULEV170	California LEV-III SULEV170	T4B100	Federal Tier 4 MDV Bin 100
L3SULEV150	California LEV-III SULEV150	T4B85	Federal Tier 4 MDV Bin 85
L3LEV630	California LEV-III LEV630	T4B75	Federal Tier 4 MDV Bin 75
L3ULEV570	California LEV-III ULEV570	T4B70	Federal Tier 4 Bin 70
L3ULEV400	California LEV-III ULEV400	T4B65	Federal Tier 4 Bin 65
L3ULEV270	California LEV-III ULEV270	T4B60	Federal Tier 4 Bin 60
L3SULEV230	California LEV-III SULEV230	T4B55	Federal Tier 4 Bin 55
L3SULEV200	California LEV-III SULEV200	T4B50	Federal Tier 4 Bin 50
T3B160	Federal Tier 3 Bin 160	T4B45	Federal Tier 4 Bin 45
T3B125	Federal Tier 3 Bin 125	T4B40	Federal Tier 4 Bin 40
T3B110	Federal Tier 3 Transitional Bin 110	T4B35	Federal Tier 4 Bin 35
T3B85	Federal Tier 3 Transitional Bin 85	T4B30	Federal Tier 4 Bin 30
T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover	T4B25	Federal Tier 4 Bin 25
T3B70	Federal Tier 3 Bin 70	T4B20	Federal Tier 4 Bin 20
T3B50	Federal Tier 3 Bin 50	T4B15	Federal Tier 4 Bin 15
T3B30	Federal Tier 3 Bin 30	T4B10	Federal Tier 4 Bin 10
T3B20	Federal Tier 3 Bin 20	T4B5	Federal Tier 4 Bin 5
T3B0	Federal Tier 3 Bin 0	T4B0	Federal Tier 4 Bin 0
HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395		

Transmission Type Code			
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual
A	Automatic	OT	Other
AM	Automated Manual	SA	Semi-Automatic
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)

Drive System Code			
4	4-Wheel Drive	P	Part-time 4-Wheel Drive

Certification Summary Information Report

Test Group	VCZVV02.9CJP	**Evaporative/Refueling Family**	VCZVR0130AA1
F	2-Wheel Drive, Front	A	All Wheel Drive
R	2-Wheel Drive, Rear		

Additional Terms and Acronyms

AFC	Alternative Fuel Converter	ICI	Independent Commercial Importer
CSI	Certificate Summary Information	ORVR	Onboard Refueling Vapor Recovery
DF	Deterioration Factor	SIL	Shift Indicator Light
Evap	Evaporation, Evaporative	Trans	Transmission