



Pennzoil[®] Multi-Vehicle Extended Life Antifreeze and Summer Coolant

Pennzoil[®] Multi-Vehicle Extended Life Antifreeze and Summer Coolant is a premium quality antifreeze/coolant that has been tested to be compatible with all automotive and light duty truck antifreeze/coolant products available in the market today. When used in a flush and refill service of the cooling system, the product will provide 5 years, or 150,000 miles of service (whichever occurs first). Pennzoil[®] Multi-Vehicle Extended Life Antifreeze and Coolant not only guards against freezing and boil-over, it also provides critical protection against corrosion forming on system components, including aluminium.

Applications

PENNZOIL[®] MULTI-VEHICLE EXTENDED LIFE ANTIFREEZE AND SUMMER COOLANT is recommended for all automotive and light duty truck cooling systems not requiring the use of SCA's, regardless of color. When used at a 50/50 ratio of antifreeze to good quality water, the solution will provide protection over a temperature range of -34 °F to +265 °F with a system using a 15-psi radiator cap.

Performance Features and Benefits

- For all makes and models of passenger cars and light duty trucks.
- 5 years / 150,000 mile service life when used during complete drain and fill.
- Excellent protection during high operating temperatures.
- Protects against water pump cavitation.
- Protects against corrosion.
- Does not change color when added to existing fluid.

Suitable where the following are recommended:

- GM 6277M
- Ford WSS-M97B51-A1
- Ford WSS-M97B44-D

- DaimlerChrysler MS-9769
- Mercedes-Benz DBL 7700
- Toyota TSK 2601
- VW TL774

Specifications and Approvals

PENNZOIL[®] MULTI-VEHICLE EXTENDED LIFE ANTIFREEZE AND SUMMER COOLANT meets or exceeds ASTM D-3306, and has been evaluated against:

- ASTM D-4340 Hot Service Aluminum Protection
- ASTM D-1384 Corrosion Protection
- ASTM D-2809 Water Pump Cavitation
- ASTM D-1881 Foaming Characteristics
- ASTM D-2570 Metal Protection

Health & Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

Protect the environment

Take used antifreeze/coolant to an authorised collection point. Do not discharge into drains, soil or water.

Typical Physical Characteristics

TEST	METHOD	TYPICAL RESULTS
Color and Odor	Visual	Yellow; Characteristic odor
Specific Gravity, 60/60 °F	ASTM D 1122	1.1216
pH, 50% Solution	ASTM D 1287	8.3
Freeze Pt., 50/50 Dilution, °C (°F)	ASTM D 1177	-36.7 °C (-34 °F)
Boiling Point, °C (°F)	ASTM D 1120	+173 °C (+ 345 °F)
Flash Point, °C (°F)	ASTM D-92	None
Auto Finish Effect	ASTM D 1882	No Effect
Density, lb/US gal. @ 60 °F	Conversion	9.36
Ash Content, weight %	ASTM D 1119	0.798
Reserve Alkalinity, mL	ASTM D 1121	3.0
Foaming Tendencies	ASTM D-1881	30 ml max, <1 sec break time

Cooling System Capacity in Quarts Quarts of PENNZOIL® MULTI-VEHICLE EXTENDED LIFE ANTIFREEZE AND SUMMER COOLANT required for protection to temperature (F) shown

	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
<u>8</u>		-7	-34						
<u>9</u>	24	4	-21	-50					
<u>10</u>	16	4	-12	-34	-62				
<u>11</u>	18	8	-6	-23	-47				
<u>12</u>	19	10	0	-15	-34	-57			
<u>13</u>		13	3	-9	-25	-45			
<u>14</u>		15	6	-5	-18	-34	-54		
<u>15</u>		16	8	0	-12	-26	-43	-62	
<u>16</u>		17	10	2	-8	-19	-34	-52	
<u>17</u>		18	12	5	-4	-14	-27	-42	-58
<u>18</u>		19	14	7	0	-10	-21	-34	-50
<u>19</u>		20	15	9	2	-7	-16	-28	-42

For cooling systems larger than shown, double the quantity required for a system half as large.