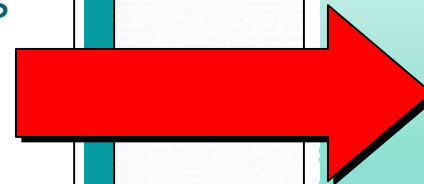




Beyond today's standards

APG+

- 100% pure coolant
- no water or aqueous ingredients
- no supplementary additives
- no corrosion agent i.e. sulfate, borate, silicate etc.
- stable from -57°C to 187°C
- low pressure (0 to 7 psi)



Finally... Pure engine coolant and:

- reduces overheating
- no corrosion and electrolysis
- Safer, lifetime coolant



Superior Performance
vs. specialty brands

=

- longer equipment life
- reduced downtime
- lower maintenance costs

APG+ Waterless Engine Coolant



- Engines tolerate running hotter without boiling over
- No water in system - free from corrosion and electrolysis
- Non-aqueous ingredients improve thermal conductivity about 32%, reduces viscosity about 65%
- Suitable for any hard working engine and there is no plumbing and pump changes required to use this coolant.



APG+

- AMOIL technology
- Non-water based
- High boiling point (over 177°C)
- Controls temperature of coolant substantially below its boiling point
- “Pour in” installation

Conventional water-based coolant

- Water-based
- Operate near the boiling point of coolant
- Locally generated coolant ethylene glycol coolants vaporise at 129°C at 15 psig these vapours may not condensate but rather form a insulating barrier causing hot spots to develop.



What APG+ Does

- Coolant Vapor condenses Immediately



Generated vapor immediately condensed back to liquid coolant and an insulating layer of vapor can't develop

- Minimal cooling system pressure, prolonging life of hoses and other components



Lowers replacement and related maintenance costs.



What APG+ Does

- Anti-corrosion additives → Stable, remain in solution for the life (at least 800,000km)
- No electricity conductivity → No electrolysis – won't damage metals, hoses, gaskets.
- Permanent surface “wetting” → Reduce vaporization, more efficient heat transfer



What APG+ Does

- Liquid coolant remains contact with hot metal engine at all times eliminates vapor pockets



Controlled metal temperatures

Coolant temperatures can be increased beyond failure temperatures

- Does not boil over or vent
- Low or no pressure system (0 – 7 psi)



No danger of explosive discharge



Reduced hose, gasket leakage



What APG+ Does

- No flushing or changing required for **lifetime** eliminates any use of water → Stops corrosion, water pump and cylinder cavitation
- Does not freeze solid or expand → Use in any weather without worry
- Non-toxic and non-hazardous → Safe for use





Comparison of Coolant Parameters

Boiling Point		Water	50/50 EGW	AMOIL APG+
		121°C (250°F) (1 atm plus 15 psig)	129°C (264°F) (1 atm plus 15 psig)	187°C (369°F) (1 atm plus 0 psig)
Viscosity				
10°C (50°F)	cp	1.2	5.0	115
80°C (176°F)	cp	10.37	1.0	4.5
100°C (212°F)	cp	0.28	0.7	2.8
Density				
20°C (68°F)	spec grav	1.00	1.066	1.038
20°C (68°F)	lbs/gal	8.32	8.87	8.64
Specific Heat				
80°C (176°F)	Btu/lb/°F	1.00	0.81	0.68
100°C (212°F)	Btu/lb/°F	1.01	0.82	0.71
Heat of Vaporisation				
	cal/mole	9,700	9,800	12,500
Vapor Pressure				
80°C (176°F)	mm Hg	360	270	8
80°C (176°F)	kPa	475	360	11
Surface Tension				
25°C (77°F)	dyn/cm	72	56	36

Some of the users

- Military Vehicles
- Trucks and boats motorcycles
- Heavy Duty Equipment
- Racing Cars

