## **Houghton Chemical Corporation**

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## Pah|nol® Universal Product Data Sheet

## Inhibited Ethylene Glycol Antifreeze/Coolant

Pah|nol® Universal meets or exceeds performance requirements for both car and truck cooling systems, including those with aluminum heat-rejecting components such as aluminum cylinder heads, water pumps and radiators. It provides corrosion protection for all cooling system metals and is compatible with antifreeze/coolants of all major producers.

For health and safety information for this product, contact Houghton for a Safety Data Sheet (SDS)

Pah nol® Universal		
Typical Properties by Concentration		
Typical Properties	Conc. (~volume of EG) Item #0708, 0702, 0703, 0706	50%(~v/v of Pah nol Univ)  Item # 0745
Ethylene Glycol	95	48
Performance Additives and Water	5	52
Color	Fluorescent Green	Fluorescent Green
Clarity	Clear	Clear
Specific Gravity (15/15°C 60/60°F)	1.12-1.14	1.06-1.09
pH 50%	7.5-11.0	7.5-11.0
Reserve Alkalinity (min)	6	3
Freeze Point (°F) Max @ 50%	-34	-34

Typical properties, not to be construed as specifications. As use conditions are not within its control, Houghton does not guarantee results from use of the information or products herein; and gives no warranty, express or implied.

**Use Recommendation:** Do not use in concentrated form in your vehicle. A 50% dilution is generally recommended for best balanced protection against corrosion and summer boiling. This provides freeze protection to -34°F, and boil-over protection to +265°F, using a 15 lb. pressure radiator cap. Do not dilute to less than 33-1/3%. (Maximum freeze protection is at 68% if required.) Water quality can be an important factor affecting the long-term corrosion protection of any antifreeze. Use only water of good quality (see ASTM D3306, General Requirements for water quality). Use of additional cooling system additives is not needed in automotive systems and is specifically discouraged. For HVAC systems, recreational vehicles, and protection of other Hydronic systems, please consult the heat transfer fluids section of our website or call us for suggestions.

**Formulated to Satisfy:** ASTM 3306 and ASTM D4985, SAE J1034, SAE J1941, Federal Specification OA548D; satisfies both hot surface aluminum protection requirements of ASTM test D4340 and Cummins heavy duty low silicate requirements, and is designed to meet the requirements of GM1825M, GM1899M, Chrysler MS7170, Ford ESEM97B44A.

**Cautionary Information:** Ethylene glycol, the major component of Pah|nol® Universal, is poisonous to humans and animals when ingested. Store only in closed containers with complete cautionary information thereon, in a cool, secure place, out of reach of children. Do not use in any system connected with potable water. Ask us about other Houghton Chemical products specifically designed for this purpose.

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