PRODUCT INFORMATION SHEET

WYNN'S HC-350 COOLANT
Product Number: 60390 12 x 1 litre 60395 20 litre

WYNN'S HC-350 COOLANT is a concentrated ethylene glycol solution, blended with corrosion inhibitors to protect General Motors - Holden engines. Wynn's HC-350 Coolant is specifically designed to meet the requirements of General Motors - Holden Automotive Ltd. and General Motors Corporation (U.S.).

Wynn's HC-350 Coolant provides protection for engine cooling systems against corrosion and cold weather damage, and specifically conforms to GMHA Material Specification HN2043 and meets the requirements of the Australian / New Zealand Standard AS/NZS 2108.1:1997 for Engine Coolant Type A.

Advantages

Wynn's HC-350 Coolant is an anti-freeze, anti-boil, anti-corrosion concentrated engine coolant that has been formulated to provide these advantages:

- REDUCES CORROSION

  The action of highly effective corrosion inhibitors significantly reduces rust and the corrosion of metals used in cooling systems, well below the figures established by ASTM Standard Specifications.

- PREVENTS SCALE DEPOSITS

  The action of special compounds prevents scale deposits from forming and clogging radiators and other vital components of cooling systems.

- REDUCES EROSION CORROSION

  The action of ethylene glycol reduces coolant vapour bubble formation and the subsequent bubble implosion on the surface of the engine cylinder walls.

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Benefits

Wynn's HC-350 Coolant has been specially formulated to provide the following benefits:

- Protects aluminium, alloy and cast iron against corrosion.
- Combats harmful electrolysis.
- Protects all cooling system parts against rust corrosion and scale formation.
- Extends corrosion protection of cooling systems.
- Prevents erosion corrosion of alloy water pumps and cylinder walls.
- Prolongs cooling system life.
- Minimal effect on rubber and plastic components.

Applications

Wynn's HC-350 Coolant conforms to GM Specification HN2043 which supersedes GMHA Specification HN1897. The GMHA Specification was introduced in response to concerns regarding premature corrosion of welch plugs in V6 engines (VN/VQ).

Wynn's HC-350 Coolant is designed to ensure satisfactory performance when diluted with good quality water to give solutions in the concentration range of 30-50% volume. The recommended dilution using good quality water as specified by GMHA is 50% volume.

Good quality water should be used to dilute Wynn's HC-350 Coolant, and should exceed the following ASTM D 4985 Standard Specification:

PROPERTY	SPECIFICATION	ASTM TEST METHOD
TOTAL SOLIDS (ppm)	340 MAX	D 188
TOTAL HARDNESS (ppm)	170 MAX	D 1126
CHLORIDE (ppm)	40 MAX	D 512, D 4327
SULPHATE (ppm)	100 MAX	D 516, D 4327
pH	5.5 - 9.0	D 1293

Wynn's HC-350 Coolant can be used for all GMHA vehicles when coolant is changed at regular service intervals.

Wynn's HC-350 Coolant can be used to top us superseded coolants in limited quantity until next service.

The recommended mixture of 1 part Wynn's HC-350 Coolant and 1 part water will raise the coolant boiling point by 9°C and lower the freezing point to -36°C.

General Motors-Holden have specified Wynn's HC-350 Coolant as the coolant to be used for all Australian manufactured GMHA vehicles, and recommend it for use during in-warranty and post-warranty servicing. Wynn's HC-350 Coolant has a minimum service life of two years or 40,000km.

Wynn's HC-350 coolant is physically compatible with the general purpose aftercare coolant, Wynn's Winter/Summer Coolant. As such, no adverse interaction occurs if the two products are mixed, but in accordance with industry practice, the indiscriminate mixing of different formulated glycol coolants should be avoided. Previous radiator fluid should be drained prior to the addition of Wynn's HC-350 Coolant, preferably using the Wynn's Power Flush Machine. A Bittering Agent is deliberately added to Wynn's HC-350 Coolant, at a rate of 10 ppm, to reduce the risk of accidental poisoning by ingestion.

Directions

Drain and thoroughly flush the cooling system with fresh water. Close all open plugs and partly fill the system with clean water. Check vehicle manual for cooling system capacity and add the required amount of Wynn's HC-350 Coolant which is 50% volume of capacity. Fill system with clean water and run engine with radiator cap off for 15 minutes. Stop engine and top-up radiator with clean water. When topping-up, use the same mixture as above. Follow air-bleeding procedures as per vehicle manufacturer's instructions. Mixing different brands of coolants is not recommended. If product is accidentally spilt on paintwork, wash immediately with fresh water.

Specifications

Wynn's HC-350 Coolant meets or exceeds the following standards:

National Standards
AS/NZS 2108.1:1997 Engine Coolant Type A
BS 6580
JIS K2234

International Standards
ASTM D 3306
SAE J 1034

Vehicle/Engine Manufacturer Standards
General Motors GM 6043 M
General Motors GM 1825 M
General Motors - Holden HN 2043

Typical Characteristics

Appearance	Clear Thin Liquid
Colour (Visual)	Green
Density @ 15°C	1.121 (ASTM D 4052)
Flash Point (°C)	126 (ASTM D 92)
Boiling Point (°C)	155 (ASTM D 1120)
Freeze Point (°C)	-22 (ASTM D 1177)
Foaming Break (seconds)	1 (Ford Test)
pH (50% vol in water)	10.5 (ASTM D 1287)
Reserve Alkalinity (ml)	12 (ASTM D 1121)

Performance Features

Wynn's HC-350 Coolant meets or exceeds the following cooling system tests:

- ASTM D 1384 Glassware Corrosion Test
- ASTM D 2570 Simulated Service Corrosion Test
- ASTM D 2809 Cavitation Aluminium Corrosion Test
- ASTM D 4340 Hot Surface Aluminium Corrosion Test

ASTM D 1384
CORROSION TEST FOR ENGINE COOLANT IN GLASSWARE

Metal	**Coupon Weight Change (mg)**			
	Wynn's HC-350 Coolant	**Specification Maximum**		
		GM 1825M	**ASTM D 3306**	**AS/NZS 2108.1:1997**
Copper	5	10	10	10
Solder	5	20	30	15
Brass	6	10	10	10
Mild Steel	1	10	10	10
Cast Iron	3	10	10	10
Cast Aluminium	2	20	30	15

ASTM D 2570
RECIRCULATION RIG SIMULATED SERVICE CORROSION TEST

Coupon Weight Change (mg)

Metal	Wynn's HC-350 Coolant	Specification Maximum		
		GM 1825M	ASTM D 3306	AS/NZS 2108.1:1997
Copper	3	20	20	20
Solder	22	40	60	60
Brass	4	20	20	20
Mild Steel	0	20	20	20
Cast Iron	0	20	20	20
Cast Aluminium	2	40	60	60

ASTM D 2809
WATER PUMP CAVITATION EROSION CORROSION TEST

Weight Change (mg)

Metal	Wynn's HC-350 Coolant	Specification Minimum		
		GM 1825M	ASTM D 3306	AS/NZS 2108.1:1997
Cast Aluminium	9	8	8	8

ASTM D 4340
HEAT REJECTION HOT SURFACE CORROSION TEST

Weight Change (mg)

Metal	Wynn's HC-350 Coolant	Specification Maximum		
		GM 1825M	ASTM D 3306	AS/NZS 2108.1:1997
Cast Aluminium	0.10	1.0	1.0	1.0