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Technical Data Sheet

Permatex® Heavy Duty Radiator Cleaner

AAM Revised 10/02

PRODUCT DESCRIPTION

S.I.N.: 834-300

Permatex® Heavy Duty Radiator Cleaner is a green liquid with a pungent odor. It is used to remove rust and scale from clogged radiators and water jackets. The product works by attacking carbonate and mineral deposits found in hard water.

For use in cooling systems over 8 quarts. NOTE: NOT for use on ALUMINUM engines or cooling systems.

PRODUCT BENEFITS

- Removes rust and scale
- Easy to use

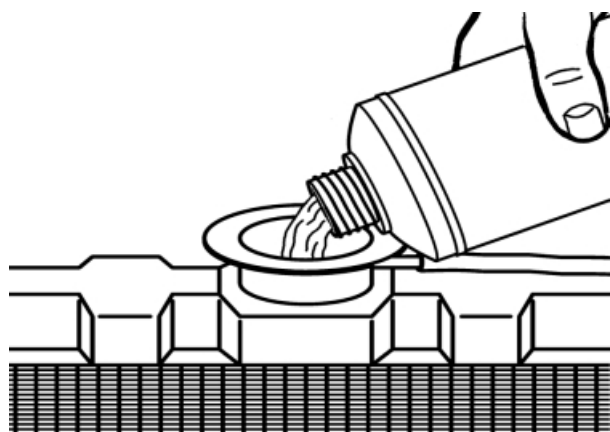
TYPICAL APPLICATIONS

- Automotive radiators
- Industrial – Engines, boilers, water cooled circulating systems for air conditioners
- Marine engines – inboard and outboard

DIRECTIONS FOR USE

For Automotive radiators

1. Drain cooling system and heater. Flush radiator with water.
2. Fill with clean water. Add approximately 12 ounces (1/3 of the container) into the radiator.
3. Run the engine "hot" for 30 minutes. **Do not** let water boil or drive the car. Drain the system.
4. Fill with clean coolant. For long lasting protection, add Permatex® Water Pump Lubricant that contains rust inhibitors. NOTE: Cleaner may uncover leaks sealed by rust.



For air conditioners with water cooled circulation systems

1. Introduce 1 quart of Permatex® Heavy Duty Radiator Cleaner into the circulation system. Run for 24 hours. Drain system.

2. Fill with fresh water/coolant.

For marine applications

1. In closed system marine engines (inboard), cleaning can be accomplished by circulating Permatex® Heavy Duty Radiator Cleaner once a year.
2. In open systems (outboard), the cleaning action can be accomplished by circulating Permatex® Heavy Duty Radiator Cleaner using the water intake and exhaust immersed into an ordinary 5 gallon pail.

PROPERTIES OF UNCURED MATERIAL

	Typical Value
Chemical Type	Hydrochloric Acid
Appearance	Green liquid
Odor	Pungent
Specific Gravity	1.10
Flash Point, TCC	None

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected for use with chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

ORDERING INFORMATION

Part Number	Container Size
80030 (18E)	1 qt. plastic bottle

STORAGE

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8° to 28°C (46° to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container.

NOTE

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