

CHARGE AIR COOLER CLEANER

RW0149-15

- **RESTORES:** Heat transfer efficiency
- **SAVES TIME:** Only a 15 minute soak is needed
- **SAVES LABOR:** Cleans and degreases in one step



Northern Charge Air Cooler Cleaner is a new concept in cleaning. It combines an organic pine terpene degreaser and a mild acid cleaner/brightener. This combination makes cleaning air coolers a quick and easy task. The terpene degreasers remove the oil, diesel soot and road grime so that the acids can then remove oxidation. Full air-flow and heat transfer are restored in one step.

The acids provide an additional benefit not found in any other cleaner. The turbulators in the tubes of a charge air cooler prevent good cleaning action from taking place. Long soak times or repeated flushing are often necessary. The foaming action of Northern Charge Air Cooler Cleaner greatly improves the degreasers ability to remove grime and break up oil by constant agitation inside the tubes.

Cleaning is faster and more complete. Northern Charge Air Cooler Cleaner has been tested extensively with positive results on coolers manufactured by many different methods. The product does not harm epoxies, viton rubber or silicone gaskets.

CAUTIONS: Do not use on or near glass or it will be etched. This product will damage concrete with repeated contact. Do not use on aircraft or anodized aluminum. Do not heat this product.

DIRECTIONS

1. Flush the cooler with water in the flush booth to remove all the oil that will flush out. Flushing first will reduce the amount of chemical used.
2. Dilute 1 part Northern Charge Air Cooler Cleaner with 1 part water at or 1 part Charge Air Cleaner with 2 parts water in a clean pail.
3. Place the air cooler on a flat surface with the filler necks facing up.
4. Fill the cooler with the mixed solution of Northern Charge Air Cooler Cleaner until it is completely full. A bubbling action will occur which improves the cleaning performance.
5. Allow the solution to work for 15 minutes.
6. Empty the cooler into a pail and save the solution for future use.
7. Flush the cooler thoroughly with clean water.
8. Be sure to label the pail containing the mixed solution to comply with OSHA regulations. If there is oil on the surface of the solution, skim it off and dispose of it properly. Change the solution when performance decreases. The Northern Charge Air Cooler Cleaner solution may be disposed of through a water treatment process with no problems.

METAL REMOVAL: Since Northern Charge Air Cooler Cleaner is an acid cleaner it does remove some of the aluminum during cleaning. It removes about 0.2 mil of aluminum after a 15 minute soak at adilution of 1:1. At 1:2 it removes 0.1 mil. A 30 minute soak would double these numbers.

NOTE: If the Northern Charge Air Cooler Cleaner solution can be circulated through the cooler with an acid-safe pump the strength of the solution may be reduced to 1:4. Circulate for 15 minutes.