



PRODUCT INFORMATION SHEET

WYNN'S AIRCO-CLEAN®

Product Number: 30205 12 x 100ml

WYNN'S AIRCO-CLEAN® is a concentrated water-based non-toxic solution, formulated to clean, sterilise and deodorise the heating, ventilation and air conditioning system (HVAC) and the vehicles interior.

WYNN'S AIRCO-CLEAN® treatment is designed to be used with the WYNN'S AIRCOMATIC® II machine (Part Number: 68470).

Introduction

Air conditioners are standard equipment on virtually all modern vehicles. Air conditioning systems operate by compressing a refrigerant from a gas into a liquid, which is then cooled as it passes through the radiator. This liquid refrigerant flows through an expansion valve into an evaporator, which allows the liquid to expand and evaporate back into a gas, absorbing heat from the surrounding air, and dramatically lowering the temperature around the evaporator. In the evaporator, the refrigerant flows through thin tubes covered with cooling fins to aid in the heat exchange process, with these tubes and fins becoming very cold as a result of the heat exchange. As the air conditioning system fan blows air through the evaporator, the air is chilled and delivered through vents into the vehicle's interior.

Due to the humidity in the air entering the evaporator, moisture droplets condense on the cooling fins, and due to surface tension, the droplets adhere to the fins. The combination of moisture, cold and darkness provides an ideal medium for the growth of micro-organisms. Every time the air conditioner is used, air blown through the evaporator and into the vehicle's interior carries with it the unpleasant odours associated with the mold, mildew, fungus and bacteria that are present.

In addition to the odours associated with micro-organisms in the air conditioning system evaporator, there are many other sources of objectionable odours in the vehicles interior. Sources of these odours include tobacco, spilled food and beverages, and bodily fluids. Odours from such sources may permeate various vehicle surfaces including the carpet, upholstery and headliner. Any source of moisture in the vehicle can also provide a breeding ground for micro-organisms, including moisture from vehicle leaks, and moisture brought into the vehicle on wet shoes or clothes which can also create damp, stale odours.

Advantages

The solution to eliminating objectionable odours originating in the air conditioning and ventilation system is to use Wynn's AIRCOMATIC® II machine and Wynn's AIRCO-CLEAN®.

The Wynn's AIRCOMATIC® II machine utilizes ultrasonic technology to turn the Wynn's AIRCO-CLEAN® product into a fine mist that is carried by the vehicle's circulation system into the evaporator, where it is designed to eliminate the odours resulting from mold, mildew, fungus and bacteria at the source.

In addition to unpleasant odours originating in the air conditioning or ventilation system itself, Wynn's AIRCOMATIC® II machine and Wynn's AIRCO-CLEAN® are designed to remove objectionable odours from interior vehicle surfaces including carpet, upholstery and headliner. The actual source of such odours might be tobacco, spilled beverages, spilled food or bodily fluids such as sweat.

The Wynn's AIRCO-CLEAN® mist generated by the Wynn's AIRCOMATIC® II machine is carried by the vehicle's ventilation system through the air duct system and into the vehicle's interior where it fills the interior space, coming into contact with the various sources of objectionable odours and helping to eliminate them.

This service does not just cover up odours and is not merely an air freshener, but a state-of-the-art ultrasonic service designed to eliminate objectionable odours at their source. The entire service is performed in less than 15 minutes, with the result being a clean and fresh smelling air conditioning system, ventilation system and vehicle interior.

Wynn's AIRCOMATIC® II machine with Wynn's AIRCO-CLEAN®, is also ideal for reconditioning used vehicles.

Benefits

Wynn's AIRCO-CLEAN® is formulated to provide the following benefits:-

- Eliminates micro-organisms such as fungi, bacteria, mold and mildew.
- Removes pollen and tobacco residues.
- Eliminates unpleasant odours.
- Prevents allergic reactions.
- Removes dirt from the air-conditioning evaporator.
- Eliminates stale vehicle interior odours in general.
- Provides a fresh and clean smelling interior environment when reconditioning used vehicles.
- Eliminates most odours in the carpeting, upholstery and headliner.

Applications

Wynn's AIRCO-CLEAN® with Wynn's AIRCOMATIC® II machine, cleans and deodorises the heating and air conditioning system (HVAC) and the vehicle's interior. Wynn's AIRCOMATIC® II machine uses ultrasonic technology to atomise the Wynn's AIRCO-CLEAN® liquid into a fine mist that circulates through the vehicle's heating, ventilation and air conditioning (HVAC) system and fills the vehicles interior.

The principle of the Wynn's AIRCO-CLEAN® and Wynn's AIRCOMATIC® II machine program is as follows:

Principle

An ultrasonic cell with a frequency of 1.7MHz transforms the liquid into small droplets of <5 micron diameter. This vapour is blown through the outlet tube. The vapour is then sucked up through the filters and evaporator to eliminate contamination.

The treatment takes about 15 minutes at 22 degrees C and is automatically stopped either at minimum fluid level or at the end of the treatment time. At higher temperatures the treatment time will be shorter, at lower temperatures the treatment time will be longer. The machine automatically calculates the correct treatment time. An annual treatment assures an odour and infection free air conditioning system.

Functions

- Outlet tube.
- Mains connection selector switch 115/230V
- Mains connection with fuse holder
 - -230V fuse 0.25A
 - -115V fuse 0.5A
- Start/Stop pressure switch

LED Indication

- Blue – “Cleaning”. Cleaning process is being carried out.
- Green – “Ready”. Machine is ready for use. Push Start/Stop button.
- Orange – “Low level”. The liquid level is too low. Empty & fill again.
- Orange – “High level”. The liquid level is too high. Empty & fill again.
- Red – “High temperature”. The temperature is too high (>50C). Let the machine cool down.

Directions

1. Start engine.
2. Set system temperature to 22 degrees C.
3. Set fan to its lowest speed.
4. Set air flow to centre dash vents only.
5. Set ventilation to re-circulate.
6. Set Air Conditioning to 'ON'.
7. For automatic systems (no off switch) push the "eco" button.
8. Remove red cap from top of unit.
9. Empty a bottle of Wynn's AIRCO-CLEAN® into filling chamber.
10. Connect the black outlet tube.
11. Place the unit horizontally upright in the passenger foot well.
12. Put the power lead through a small opening in the side window.
13. Connect lead to power source.
14. Position the black outlet tube into the foot well air vent opening.
15. Push start button.

Exit the vehicle and close the doors. Vapour comes out of the centre dashboard vents after 20 to 30 seconds. This gives sufficient time to exit the vehicle and close the doors.

The Wynn's AIRCOMATIC® II machine automatically switches off –

- a) At the end of the treatment time.
 - b) At minimum fluid level.
16. Finally, disconnect power source and pour out residual fluid from filling chamber.

Typical Characteristics

Appearance	Thin Clear Aqueous Liquid
Colour (Visual)	Pale Green
Density @ 15°C	0.998 (ASTM D 4052)
pH (Concentrate)	9.0 (ASTM D 1287)
Flash Point (PMCC) °C	61 (ASTM D 93)
Refractive Index	1.3412 (ASTM D 1747)

Performance Data

Wynn's AIRCO-CLEAN® and Wynn's AIRCOMATIC® II machine were evaluated by the Ambulance Service in Belgium (Ref LVV 30/09/02 T.R. 78/02). The application of Wynn's AIRCO-CLEAN® with the Wynn's AIRCOMATIC® II machine in ambulances, is similar to cars and vans, since most ambulances are transformed cars or vans.

(a) EFFECTIVENESS ON BACTERIA

Lab tests have shown resistance against most gram positive and gram negative bacteria. Test results exist on activity against: Staphylococcus aureus, Escherichia coli, Candida albicans, Aspergillus Niger, Penicillium funiculosum, Cladosporium cladosporoides, Streptococcus faecalis, Bacillus cereus, Pseudomonas aeruginosa, Klebsiella pneumoniae, Salmonella typhimurium.

Note that Wynn's AIRCO-CLEAN® has undergone several tests concerning the OECD guidelines.

acute intake poisoning (OECD 401) LD50 = 1100-1250ml/kg (rats)
acute skin poisoning (OECD 402) evaluation = non-poisonous
skin irritation (OECD 404) evaluation = non-irritating

(b) EFFECTIVENESS OF TREATMENT

Due to the fine vaporisation (droplets of 5 microns) of the application of Wynn's AIRCO-CLEAN® by the Wynn's AIRCOMATIC® II machine, the treatment is very effective.

The product passes pollen filters and penetrates in the whole aeration system. Because of the recirculation mode, a fog is created inside the vehicle which disinfects the whole ambulance.

This method has an advantage over ionisation methods. With ionisation methods, only solid materials such as dust are removed.

The treatment will effectively kill off any bacteria when applied as a mist using the Wynn's AIRCOMATIC® II machine. The product has a working area wherever the air stream takes it, not only in the evaporator but also any ventilation channel and the inside of the vehicle.