

ACID ACCEPTANCE TEST KIT FOR ECOMAX™ **Vapor Degreasing and Cleaning Solvent**

TEST KIT PROCEDURES

Contents of Kit:

- Plastic pipette with a 2 ml capacity
- Plastic pipette with a 1 ml capacity
- One empty 1 oz. glass screw-top vial
- 1 oz of Solution "A" (yellow liquid)
- 1 oz of Solution "B" (clear liquid)
- One screw-cap eye dropper for Solution "B"'s container*
- One MSDS for each of Solution "A" & "B"

* Special Directions for the Screw-Cap Eye Dropper: Remove the cap from the vial containing Solution B and replace the cap with Screw-Cap Eye Dropper provided in your kit. The eye dropper must remain with Solution B to prevent cross contamination.

DIRECTIONS FOR TESTING ACID ACCEPTANCE OF ECOMAX™

STEP 1. Special Instructions for obtaining the sample to be tested: When testing acid acceptance of *ECOMAX™*, it is important to obtain a sample from the water separator. Do not take your sample from the boiling sump of your vapor degreaser because a sample from the boiling sump is likely to contain contaminants which will cause inaccurate results. In addition, because the presence of water will result in inaccurate (low) acid acceptance values, make sure that the sample of *ECOMAX™* does not contain water which may be present at the top of the water separator.

STEP 2. Clean all equipment: Make sure all vials, pipettes and the eye-dropper are clean, dry and empty.

STEP 3. Measure a specific quantity of *ECOMAX™*: Draw 1ml of *ECOMAX™* to be tested using the 1ml plastic pipette by filling the pipette to the 1ml line (note this line is near the base of the pipette's bulb). ACCURACY HERE IS CRITICAL. Discharge the 1ml of *ECOMAX™* into the screw top vial.

STEP 4. Add Solution A to the *ECOMAX™*: Draw 2ml of Solution A using the 2ml plastic pipette by filling the pipette to the 2ml line (note this line is near the base of the pipette's bulb). AGAIN ACCURACY HERE IS CRITICAL. Discharge the 2ml of Solution A into the screw top vial which already contains 1ml of *ECOMAX™*.

STEP 5. Mix Solution A and *ECOMAX™*: Screw the cap onto the vial and mix the 2ml of Solution A and the 1ml of *ECOMAX™* by swirling the contents.

STEP 6. Let the mixture of Solution A and *ECOMAX™* stand for 10 minutes or longer: Make certain that the vial remains capped to minimize evaporation. Make certain the mixture stands at least 10 minutes (or longer) or the test results will be inaccurate.

STEP 7. Add drops of Solution B to determine acid acceptance: Add Solution B one drop at a time using the screw-top eye dropper which you previously affixed to the Solution B's vial. **COUNT THE DROPS.** Note, you must hold the eye-dropper at a 45° angle to ensure a consistent and appropriate drop size. Add Solution B at a rate of 1 drop per second while gently swirling the vial. As Solution B is added, the color of the contents in the vial will change from milky to yellow, then to green and finally to blue. Record the number of drops needed to obtain the first blue color that does not fade; note that the change to blue is an abrupt rather than gradual event.^A

STEP 8. Use the Acid Acceptance Table on the Following Page to Determine the Acid Acceptance of your ECOMAX™: Reference the number of drops it took to accomplish the change to blue which you achieved in Step 7 to determine the appropriate procedure in connection with maintaining your ECOMAX™.

ACID ACCEPTANCE TABLE		
Drops of Solution "B" Accepted until Blue Reaction Occurred	Weight % NaOH	Recommended ECOMAX™ Maintenance Procedure
0 - 16 drops	0.19 - 0.20	Acid Acceptance is within normal limits. Establish a screening test procedure to establish an appropriate test frequency for your application.
16 - 26 drops	0.15 - 0.18	Acid Acceptance is within normal limits. Check acid acceptance at least weekly.
27 - 32 drops	0.11 - 0.14	Acid Acceptance is diminishing. Check acid acceptance frequently, at least daily. Consider adding fresh solvent to replenish stabilizers. ^C
33 - 38 drops	0.07 - 0.10	Acid Acceptance is diminishing. Add fresh ECOMAX™. ^C We recommend the addition of a minimum of 25% fresh solvent to replenish the level of inhibitors. After adding the fresh solvent, re-test to confirm a minimum acid acceptance (weight%, NaOH 1) of 0.15
more than 38 drops	< 0.07	Acid Acceptance is critically low. Remove solvent and charge the system with virgin ECOMAX™. We also recommend contacting your local ECOMAX™ distributor or Enviro Tech's Technical Support Department for evaluation of your solvent maintenance program.

STEP 9. Re-test if additional ECOMAX™ is added to determine appropriate acid acceptance is achieved: If additional ECOMAX™ is added to increase your ECOMAX™'s acid acceptance, re-testing of the acid acceptance should be conducted to ensure that the procedure undertaken has achieved a minimum acid acceptance of 0-16 drops (minimum wt%, NaOH of 0.15).^c

Call Enviro Tech's Technical Support Department or your local distributor if you have any questions.

Footnotes:

- A. **Additional Notes concerning STEP 7:** When adding Solution B, it is not uncommon for the mixture to go from clear to blue and back to clear. The color change being sought is the entire contents of the vial permanently changed to blue. During this process you may see streaks of blue or yellow, this is not the color change terminating the adding of drops of Solution B.
- B. **Use Of This Kit Is Just A General Guide:** The user must establish the appropriate frequency of testing and the range of operation for the user's specific application and the frequency in which the solvent should be added or changed.
- C. **Adding Solvent:** After each addition of virgin solvent allow the machine to run for the appropriate amount of time to cycle the added solvent through the entire vapor degreaser.