

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2016  
 DateRun: 09/26/2016  
 Experimenters: Francisco Abreau, Nicholas Landberg, Vinh Tran  
 ClientType: Cleaner Manufacturer  
 ProjectNumber: Project #1  
 Substrates: Liquid  
 PartType: Part  
 Contaminants: Odor  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Smell

Purpose: To measure the effect of various deodorizers on the scent of urine-infected cat litter over time.

Experimental Procedure: Bottles were filled with 2-3 inches of cat litter that had been pre-soiled with cat urine, allowing for three bottles per cleaner and one control. The bottles were capped and left for five days. On the fifth day, the initial smell ratings were taken by three testers (from 1-5, 1 being best), and the recommended amounts of each product were added to their designated bottles. Successive smell ratings were then scheduled to be taken at the initial and after twenty-four-hour ratings were taken.

Results: All products performed well, all rating an overall improvement in average smell ratings from start to finish, with Fresh Step Tropical improving by an average of 0.33, Fresh Step Crystal by an average of 1.30.

Table of Product Performance

| Cleaner             | Initial | Final | Change in rating |
|---------------------|---------|-------|------------------|
| Fresh Step Tropical | 3.25    | 2.5   | 0.75             |
|                     | 3.75    | 2.75  | 1                |
|                     | 3       | 3.75  | -0.75            |
| Fresh Step Crystal  | 3       | 2.5   | 0.5              |
|                     | 3.65    | 1.25  | 2.4              |
|                     | 2.25    | 1.25  | 1                |

Summary:

|                      |                      |               |                    |                                     |                      |
|----------------------|----------------------|---------------|--------------------|-------------------------------------|----------------------|
| <b>Substrates:</b>   | Liquid               |               |                    |                                     |                      |
| <b>Contaminants:</b> | Odor                 |               |                    |                                     |                      |
| <b>Company Name:</b> | <b>Product Name:</b> | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| Fisher Scientific    | Absolute Ethanol     | 0             | 0.00               | <input type="checkbox"/>            |                      |
| Clorox Company       | Fresh Step Tropical  | 100           |                    | <input type="checkbox"/>            |                      |
| Clorox Company       | Fresh Step Crystal   | 100           |                    | <input checked="" type="checkbox"/> |                      |

Conclusion: The twenty-four hour tests we see that the two Fresh Step Crystal reduced the odor more than the Tropical version.