STERILEX
Innovative Solutions for Microbial Control

Evaluating the Dustiness of Sterilex Granulated Disinfectants

A common concern amongst users when considering the application of dry granular disinfectants to their facilities is the potential for these products to liberate dust that could be carried outside of the area of application. Sterilex granular products have been specifically formulated with a liquid de-duster in order to prevent the generation of dust during handling. However, Sterilex R&D sought to confirm the dust level of our products, using an approved testing standard.

Collaborative International Pesticides Analytical Council (CIPAC) methods are internationally recognized and used for pesticide and biocide analysis. Their qualification involves rigorous validation studies, including inter-laboratory trials and adherence to specific performance parameters like specificity, linearity, accuracy and precision. CIPAC Method MT 171.1 has been developed to assess the amount of dust released into the air by granular products under conditions related to typical handling during measuring and pouring[1].

Method

ProvaStep™ and Sterilex Ultra Step were evaluated by David Norris Analytical Laboratories Ltd. according to the gravimetric variant of the CIPAC MT 171.1 method, wherein a preweighed quantity of the test sample is allowed to fall from a defined height into a measuring box. Upon impact at the bottom of the box, dust is released into the air. Air is pulled out of the box through a filter plate via a vacuum pump for 60 seconds after the sample is dropped, collecting any airborne dust onto the filter plate. The filter plate is then removed and weighed to determine the amount of dust collected. Each test sample is evaluated in triplicate, and results are averaged.

Based on the results of "collected dust" in miligrams (mg), the dustiness of a granular product can be categorized as

Category	"Collected Dust"(mg)	Interpretation
1	0–12	Nearly Dust-Free
2	>12–30	Essentially Non Dusty
3	>30	Dusty

Results

Sterilex's ProvaStep had a mean dust content of 0.3 mg, equivalent to 0.0014%. This is between 0 mg to 12 mg and ProvaStep is therefore considered nearly dust free – Category 1.

Sterilex Ultra Step had a mean dust content of 0.43 mg, equivalent to 0.0014%. This is between 0 mg to 12 mg and Sterilex Ultra Step is therefore considered nearly dust free – Category 1.

Sample	ProvaStep	Sterilex Ultra Step
Dust Content (mean of 3 results)	0.3 mg, equivalent to 0.0014%	0.43 mg, equivalent to 0.0014%
Category	1 – Nearly Dust Free	1 – Nearly Dust Free

Conclusion

Experimental results indicate that **ProvaStep and Sterilex Ultra Step are considered nearly dust free** and can be expected to generate minimal airborne dust during typical handling operations such as measuring and application. Customers can confidently apply Sterilex granular disinfectants in their facilities at the recommended rates without concern for airborne dust or drift to equipment surfaces.

References

1. Collaborative International Pesticides Analytical Council (CIPAC). (2015). MT171.1 - Dustiness of granular products. CIPAC Handbook. Retrieved from CIPAC Website.

Please contact us for more information.

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