

ULTRACIDE

INSECTACIDE COATING

**ITALIAN
EUROPEAN**

TESTING AND APPROVAL FOR USE

(Stamp and initials on all pages)



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TO: Statuto Service srl
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Re: Evaluation of Effectiveness of the Insecticidal "Ultracide" Formulation

REPORT

The test herein had the objective of evaluating in the laboratory the insecticidal and residual effectiveness of the formulation called "Ultracide" (undeclared lot) in combatting *Blattella germanica* (L).

The chemical composition declared on the label is indicated in Table 1.

Product	Formulation	Active Ingredient	Composition
Ultracide	Water-based latex insecticide coating	Chlorpyrifos	0.5-1.5 %
		Monoethylene glycol	5-10 %
		Xylene	1- 5 %
		Vinyl acetate-acrylic copolymer	10-20 %
		Water ultracide	40-70 %

Table 1. Declared chemical composition of the formulation "Ultracide"

The Director

MATERIALS AND METHODS

Biological Material

The individuals used were newly hatched¹² and adults belonging to the *Blattella germanica* (L.) species from breeding stock at this Institute.

Treatment

The product to be tested (after extended and meticulous remixing) was uniformly spread using a brush on small ceramic tile plates (side = 20 cm), either on the glazed or on the porous side at a dose of 200 mL per m² of surface (corresponding to 8 mL per plate.)

After 2 hours of drying under a vacuum cover, a second layer of varnish was spread, always at a rate of 200 mL per m² of surface area.

The untreated controls were irrigated with water.

After drying, the plates were transferred to the testing chamber.

Biological Testing

The tests were carried out after 7 days of treatment, as indicated in the technical information sheet provided by the customer.

Groups of 10 individuals, anesthetized using carbon dioxide, were confined on each plate by means of upside down plastic jars.

The test insects were left in contact with the treated surface for one hour, then were transferred for 24 hours to cleaned vessels (diameter 12 cm; height 6 cm) that were closed with gauze and contained some pellets of domestic animal feed in the case of the cockroaches and a test tube with a solution of honey in water (with a hydrophilic cotton plug) in the case of the flies.

Verification of the immobilization¹³ was performed after 15, 30, 45 and 60 minutes, while mortality was determined after 24 hours.

The treated plates again underwent the test two to three weeks after treatment using the same method for verification of the residual action.

The test was carried out under the following conditions: 26.0 ± 0.5 °C, 65 ± 5 % relative humidity.

¹² “Newly hatched” is an educated guess as the Italian term doesn’t exist.

¹³ see above

RESULTS OBTAINED

The obtained results are illustrated in the following tables.

Time (Days after Treatment)	Glazed Surface Immobilization ¹⁴ (%) in Minutes				Mortality (%) at 24 Hours	
	15	30	45	60	Ultracide	Control
7	0	0	0	0	100	0
14	0	0	0	0	100	0
21	0	0	0	0	100	0

Table 2 - Average percentages (in 4 repetitions) of immobilization¹⁵ and mortality (at 24 hours) achieved on *B. germanica* with the formulation called "Ultracide" on a glazed surface.

Time (Days after Treatment)	Porous Surface Immobilization ¹⁶ (%) in Minutes				Mortality (%) at 24 Hours	
	15	30	45	60	Ultracide	Control
7	0	0	0	0	100	0
14	0	0	0	0	100	0
21	0	0	0	0	100	0

Table 3 - Average percentages (in 4 repetitions) of immobilization¹⁷ and mortality (at 24 hours) achieved on *B. germanica* with the formulation called "Ultracide" on a porous surface.

¹⁴ see above

¹⁵ see above

¹⁶ see above

¹⁷ see above

CONCLUSIONS

The formulation exhibits full insecticidal action at 24 hours at least through the end of 3 weeks from treatment if used according to the instructions supplied by the Manufacturer or when spread one over the other in two successive layers at an interval of two hours at a total rate of 400 mL per m², putting the cockroaches in contact with treated surface only after 7 days.

There is, on the other hand, no evidence of any immobilization¹⁸ action.

However, when applied using the method and the concentration indicated above, the formulation called "Ultracide" is sufficiently effective against *Blattella germanica*, with a residual effect of at least 21 days.

Tester Laboratory Chief
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(Signature)

Prof. Luciano Süss
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The Director Prof. Giuseppe C. Lozzia
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¹⁸ see above