SUMITOMO CHEMICAL

PESGUARD®

FG-161

PESGUARD® FG-161

1. INTRODUCTION

Pesguard® FG161 is a new formulation developed for controlling the pest of public health importance. This formulation is composed of pyrethroid insecticides, Gokilaht® as excellent killing agent, and Neo-Pynamin® Forte as super knockdown agent and both pyrethroids are acutely low toxic to mammals.

Pesguard FG161 is suitable for application by thermal and cold (ULV) foggers, power sprayers and knapsack sprayers etc.

Characteristics

1 Rapid knockdown effect
2 Strong killing effect
3 Long residual effect
4 Low acute mammalian toxicity
5 Easy handling
6 Excellent storage stability

2. COMPOSITION

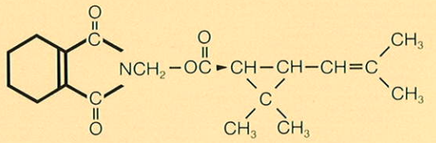
1) Formulation

	Content (% W/V)
Neo-Pynamin Forte (*d*-tetramethrin)	4
Gokilaht (cyphenothrin)	12
Inert ingredients (emulsifier etc.)	Balance
	100

2) Chemical name and structural formula of active ingredients

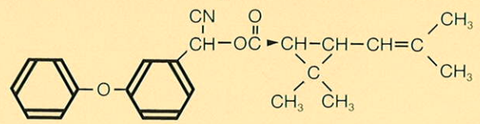
(1) Neo-Pynamin® Forte

Common name: d-tetramethrin
Chemical name: 3, 4, 5, 6-tetrahydrophthalimidomethyl (IR)-*cis, trans*-chrysanthemate
Structural formula:



(2) Gokilaht®

Common name: cyphenothrin
Chemical name: (RS)-α-cyano-3-phenoxybenzyl (1R)-*cis, trans*-chrysanthemate
Structural formula:



3. PHYSICAL PROPERTIES

Appearance	Yellowish liquid
Specific gravity	$d_4^{20} = 0.903$
Viscosity (CPS/20°C)	6.96
Flashing point	72.5°C (by T.C.C.)
Stability	Stable at least 2 years under normal room temperature
Solubility	Miscible with kerosene at room temperature
Compatibility	Neo-Pynamin Forte and Gokilaht are quite stable in kerosene and water. Less stable in lower aliphatic alcohols such as methanol and in alkaline media

4. TOXICITY

	Acute oral toxicity LD_{50} (mg/kg) rat	**Acute dermal toxicity LD_{50} (mg/kg) rat**
Pesguard FG161 (F-3757)	♂ : 2,350, ♀ : 2,500	♂, ♀ : >2,000

5. RECOMMENDABLE USE

1) For flying insects (adult flies and mosquitoes, etc.)

	Treatment		
	Dilution		Application
	FG161	**Water**	
Power spray (Hand spray)	1 ℓ	159 ℓ [1]	1 ℓ/100 m²
	1 ℓ	319 ℓ [2]	
	FG161	**Kerosene**	
Thermal fogger	1 ℓ	159 ℓ	10 ℓ/ha
	FG161	**Water or Kerosene**	
Cold (ULV) generator	1 ℓ	15 ℓ	0.5 ℓ/ha

1) Initial treatment 2) Routine maintenance

2) For crawling insects (cockroaches, bedbugs, fleas and house ticks, etc.)

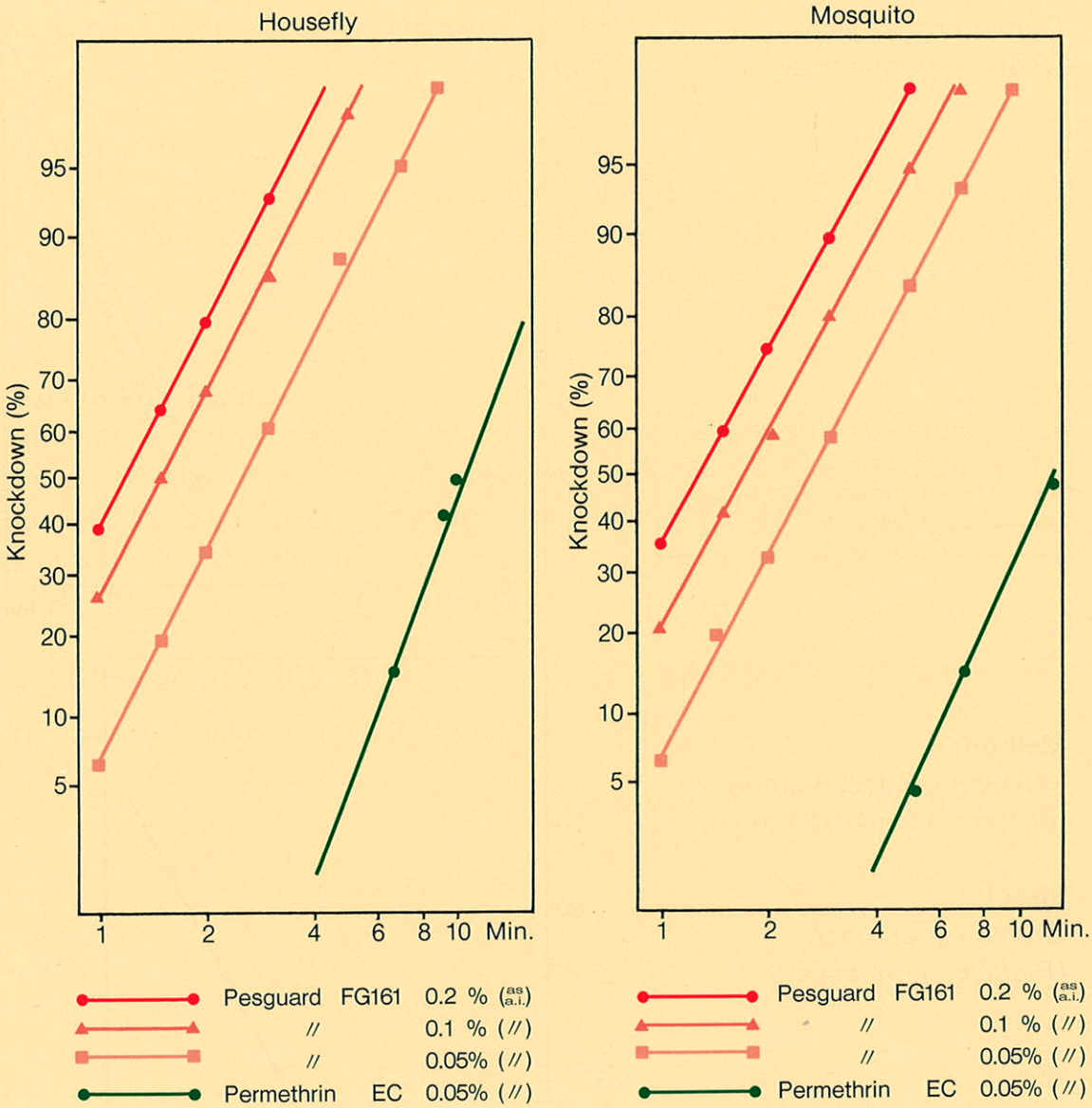
	Treatment		
	Dilution		Application
	FG161	**Water**	
Power spray (Hand spray)	1 ℓ	100 ℓ	5 ℓ/100 m²

6. EFFICACY

1) For flying insects

Method: Glass chamber spray method (dosage: 2.1 mℓ/chamber)

Insect: Housefly (*Musca domestica*, CSMA strain)
Mosquito (*Culex pipiens pallens*)

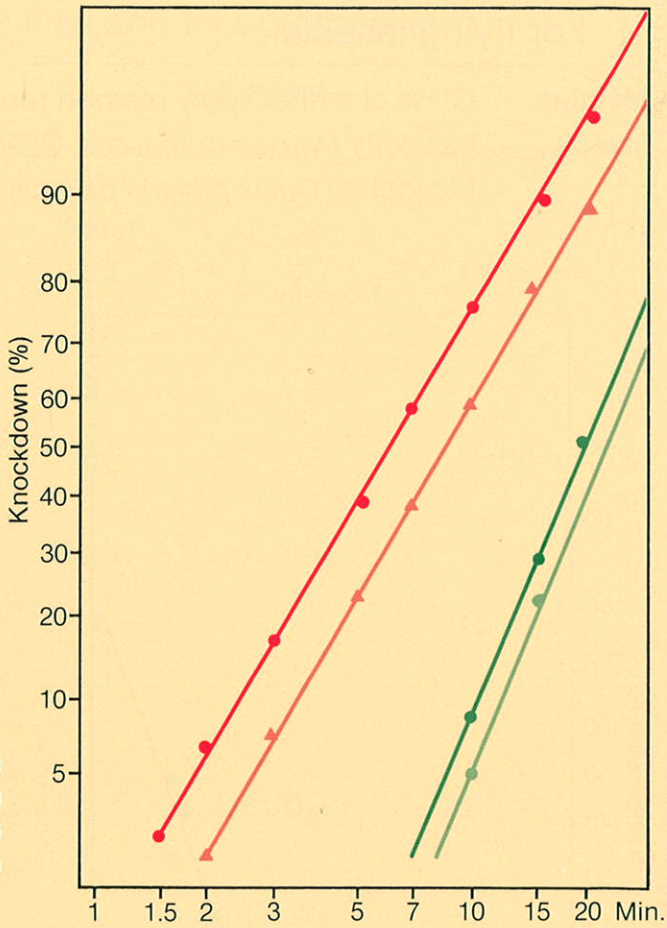


2) For crawling insect

(1) Direct spray efficacy

Method:
CSMA direct spray method
(dosage: 1.5 mℓ/chamber)

Insect:
German cockroach
(*Blattella germanica*)

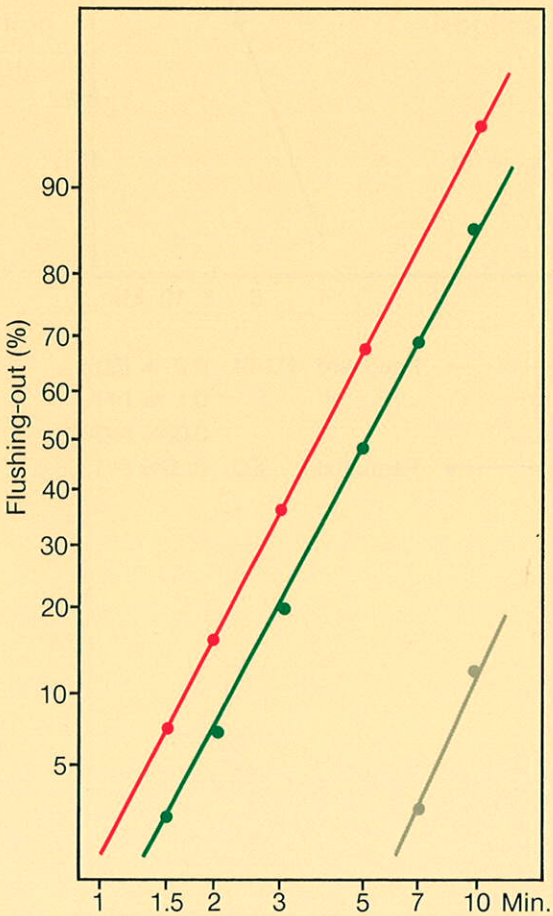


- Pesguard FG161 0.2% (as a.i.)
- Pesguard FG161 0.1% (〃)
- Permethrin EC 0.2% (〃)
- Permethrin EC 0.1% (〃)

(2) Flushing-out efficacy

Method:
Flushing-out test method
(dosage: 4.2 mℓ/0.34 m³)

Insect:
German cockroach
(*Blattella germanica*)



- Pesguard FG161 0.5% (as a.i.)
- Permethrin EC 0.5% (〃)
- DDVP/Propoxur OIL 0.5/2.0% (〃)

7. SAFETY PRECAUTIONS

1) Precautions

Do not get in eyes, on skin or on clothing.
Do not store near feed or food products.
Keep containers closed.
Keep out of reach of children.
Decontaminate, destroy and do not re-use empty containers.
Keep away from heat (e.g. sparks and open flames).

2) First aid

If swallowed, do not induce vomiting nor administer liquids. Keep patient prone and quiet. Call a physician. If eyes are splashed, immediately flush eyes and continue for 15 minutes with large amounts of water, get medical attention. If skin is contacted, remove all contaminated clothing at once. Thoroughly wash skin with soap and water. Get medical attention.

Note to Physician:

Inducing vomiting as first aid for this substance may result in increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent. Vomiting should be induced only under professional supervision.

3) Medical treatment

In case of ingestion, carry out gastric lavage.

SUMITOMO CHEMICAL COMPANY, LIMITED
Environmental Health Division
2-1, Takatsukasa, 4-chome, Takarazuka, Hyogo 665-8555, Japan

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