

sumithion[®] 20CS



SUMITOMO CHEMICAL

sumithion® 20CS

Micro-encapsulated water-based concentrate

Technical Information Leaflet

Sumithion® 20CS incorporates the latest in microcapsule formulation technology from Sumitomo Chemical, combined with the well-known superior action afforded by its active ingredient Sumithion®

Composition and properties

Sumithion® 20CS contains the well-known and tested organophosphate Sumithion® in the latest low odour, water-based, micro-encapsulated formulation. The product is suitable for application to most surfaces for the effective long-term residual action against a wide range of crawling insect pests. The microcapsules hold the active on the sprayed surface where it is required, rather than allow it to seep away. It is not recommended that this formulation be applied to white marble, which has a tendency to yellow.

Sumithion® 20CS is non-flammable concentrate suitable for dilution only with water.

The encapsulation technology utilised allows for:

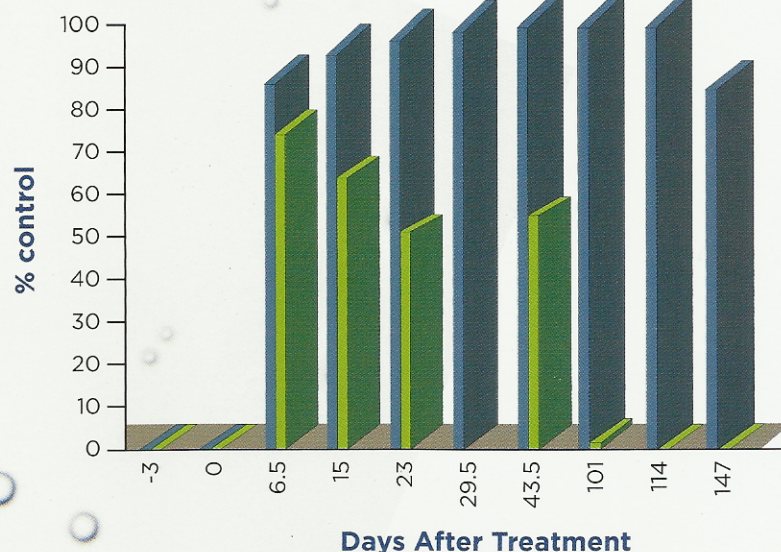
- Extended residual action against most crawling insect pests, including pyrethroid resistant cockroaches
- A further reduction in the already comparatively low toxicity of Sumithion®
- Reduced odour due to the encapsulation process and a lack of organic solvents in the formulation

Composition of solution (active expressed as pure)	Sumithion®: 20% w/w pure (21.4% w/v pure) Thickening & dispersing agents, wall material & deionised water: to 100%
Packaging (UN approved)	20 L drums; 1 L COEX bottles
Density	1.07 g/ml at 25°C
Stability	Stable in original package at room temperature for at least 3 years. Sedimentation may occur following standing for long periods. This is readily dispersed by shaking.
pH	6.0 - 7.0
Flash point	Non-flammable (Tag closed cup)
Toxicology of product	
Acute Oral LD ₅₀ (rats)	♂ & ♀ > 20,000 mg/kg
Acute Dermal LD ₅₀ (rats)	♂ & ♀ > 5,000 mg/kg

Technical support

Sumithion® 20CS is supported by a modern and comprehensive registration package of toxicological, stability and efficacy data. It also comes with the benefit of Sumitomo Chemical technical support from a regional laboratory in Malaysia

Activity of Sumithion® 20CS against cockroaches (*Blattella germanica*) in a field trial comparison with Sumithion® EC



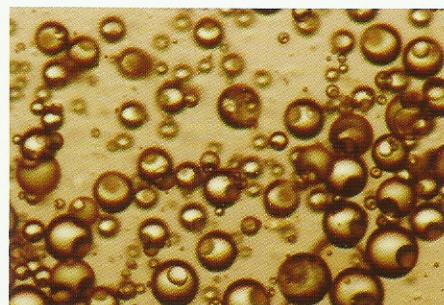
Method of use

(for full details please refer to product label)

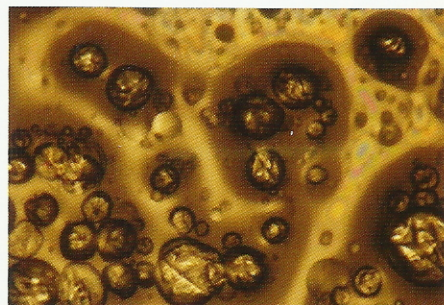
Surface Applications - Crawling Pests

Sumithion® 20CS should be shaken before use and after dilution with water agitated around every 30 mins.

There are many theories surrounding how microcapsules actually work when applied to surfaces. Sumitomo Chemical imaging of surfaces covered with Sumithion® 20CS before and after exposure to would seem to confirm that for Sumitomo microcapsules at least, the product sits on the surface and is then partly broken by the “trampling” of passing insects. Some of the microcapsules are also no doubt picked up onto the insect bodies, some ingested by grooming and some left to release their contents on to the insect cuticle. The grooming effect on action against cockroaches can be measured when insects with mouths sealed and not sealed are exposed to Sumithion® 20CS. Those with sealed mouths were knocked down 5 times less quickly.



Before contact with cockroaches



After contact with cockroaches

Biological efficacy

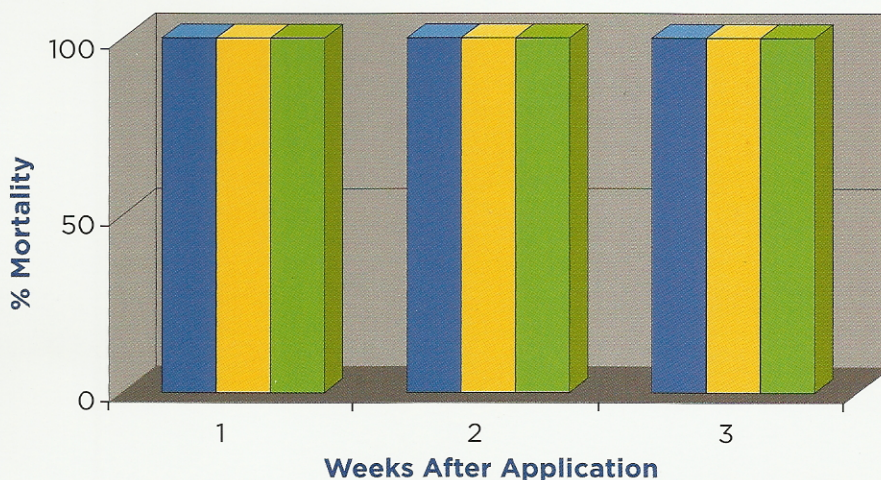
Sumithion® 20CS provides excellent control of target pests when used as directed

Whatever the mode of action, the effect is the elimination of insects that come into contact with treated surfaces, far exceeding that attainable with standard EC formulations (ref. graph on right).

Spray Conditions	Dilution Rate		Spray Dose
	Sumithion® 20MC	Water	
Initial Treatments Crawling insects (e.g cockroach & ants)	1	40	50ml/m ² or to run-off
Follow Up Treatments Crawling insects (e.g cockroach & ants)	1	80	50ml/m ² or to run-off
Problem Areas Tough surfaces/serious infestations Crawling insects (e.g cockroach & ants)	1	40	50ml/m ² or to run-off

Residual Effect Of Sumithion® 20CS Against *Monomorium pharaonis*

- 125mg a.i./m²
- 250mg a.i./m²
- 500mg a.i./m²



In the World Health Organisation booklet WHO/CTD/WHOPES/97.2, "Chemical methods for the control of vectors and pests of public health importance", reference is made to the "suitable" pest control activity obtained with various doses of Sumithion®:

Mosquito control

Interior surface treatments - Sumithion® 2g a.i. /m²

Fly control

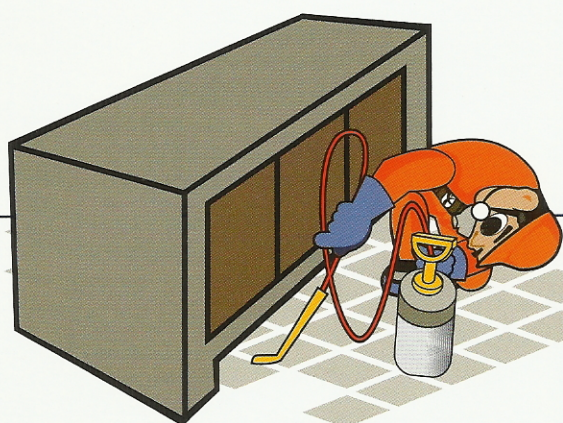
Surface treatments - Sumithion® 1 to 2g a.i. /m²

Cockroach control

- Sumithion® 20CS 0.25 to 0.5% sprays

Others

Sumithion® is also listed as a chemical suitable for the control of triatomine bugs at dose levels of 1g a.i. /m².



Further Information

Please read the label carefully before use. Further information on this, and other products within the Sumitomo Chemical range, may be obtained from our local office.

Sumitomo Chemical (Asia Pacific) Pte Ltd

150, Beach Road, #17-07/08, Gateway West,
Singapore 189720
Tel : (65) 6671 4100
Fax : (65) 6296 3779

Sumitomo Chemical Philippines Inc

18th Floor, Philam Life Tower
8767 Paseo De Roxas
Makati City, Metro Manila
1226 Philipines
Tel : +632 - 885 0671 80
Fax : +632 - 885 0630 32
HP : +63 - 9175 1893 73

Sumitomo Chemical (Thailand) Co. Ltd

Level 35, Unit 3505, Exchange Tower
388 Sukhumvit Road
Klongtoey, Bangkok 10110
Thailand
Tel : (66) - 2 663 43378
Fax : (66) - 2 663 4336

Sumitomo Chemical Enviro-Agro Asia Pacific Sdn Bhd

Representative Office
Jakarta Stock Exchange Tower II
17th Floor, Jl. Jenderal Sudirman Kav. 52-53
Jakarta 12190, Indonesia
Tel : (62-21) 515 7748
Fax : (62-21) 515 7799

Sumitomo Chemical Enviro-Agro Asia Pacific Sdn Bhd

Lot 62A, Persiaran Bunga Tanjung 1
Senawang Industrial Park
70400 Seremban, Negeri Sembilan
Malaysia
Tel: (606) - 679 3711
Fax : (606) - 679 3698

Sumitomo Chemical Vietnam Co., Ltd

Villa No. 7-20th Street - Binh An ward
District 2 - HCM City
Vietnam
Tel: (08) 3740 7572 - (08) 3740 7576
Fax : (08) 3740 7573



SUMITOMO CHEMICAL



Responsible Care
OUR COMMITMENT TO SUSTAINABILITY