

Overview of support documents – hydrogen cyanide (HCN)

HCN is active substance of biocidal preparation Uragan D2 (stabilized hydrogen cyanide)

(new trade name BLUEFUME)

Submitted uses:

1) Use „Garlic seeds“ – Nematodes (*Ditylenchus dipsaci*)

- a. Form Czech republic - Treatment by HCN (garlic)
- b. File Support
 - 1. 05_HCN_ZOUHAR_garlic_2016

2) Use „Wood“ – Nematoda – *Bursaphelenchus xylophilus*

Coleoptera - *Hylotrupes bajulus* and *Anoplophora glabripennis*

- a. Form Czech republic - Treatment by HCN (wood)
- b. File Support
 - File DOC III B_PT8
 - Wood penetration data
 - a. DOC III_5.1a_wood penetration data_PT08
 - b. DOC III_5.1b_wood penetration data_PT08
 - c. DOC III_5.1c_wood penetration data_PT08
 - d. DOC III_5.1d_wood penetration data_PT08_B
 - Efficacy data
 - a. DOC III_5.2.a_efficacy data_PT08
 - b. DOC III_5.2.b_efficacy data_PT08
 - c. DOC III_5.2.c_efficacy data_PT08
 - d. DOC III_5.2.d_efficacy data_PT08
 - e. DOC III_5.2.e_efficacy data_PT08
 - f. DOC III_5.2.f_efficacy data_PT08
 - g. DOC III_5.2.g_efficacy data_PT08
 - Efficacy summary
 - a. DOC III_5_efficacy summary_PT08
 - File DOC IV B_PT8
 - 05_HCN_DOUDA_pine wood nematode
 - 05_HCN_MANASOVA_wood nematodes
 - 05_HCN_PARKIN_toxicity of hydrogen cyanide
 - 05_HCN_STEJSKAL_insecticide
 - 05_HCN_STEJSKAL_package wood
 - 05_HCN_STEJSKAL_wood penetration
 - 05_HCN_VUD_hylotrupes bajulus eggs
 - 05_HCN_VUD_hylotrupes bajulus larvae_2011
 - 06_HCN_CAPOUN_LZD_wood penetration_2007

3) Use „Containers“ – Rodents

- Norway rat (*Rattus norvegicus* Berk.),
- Black rat (*Rattus rattus* L.),
- House mouse (*Mus musculus* L.)

– Insects

- German cockroach (*Blattella germanica* L.)
- Confused flour beetle (*Tribolium confusum*)
- Red flour beetle (*Tribolium castaneum*)
- Sawtoothed grain beetle (*Oryzaephilus surinamensis*)
- Indian meal moth (*Plodia interpunctella*)
- Mediterranean flour moth (*Ephestia kuehniella*)

– Mites

- The flour mite (*Acarus siro*)
- Storage mite (*Lepidoglyphus destructor*)
- Cheese mite (*Tyrophagus putrescentiae*)

- a. Form Czech republic - Treatment by HCN (container)
- b. File Support

• File Rodents

04_HCN_WIL RESEARCH_anal.method validation
05_HCN_LZD_mouse, field test
07_HCN_WIL RESEARCH_rat report
Appendix H_Structure 10 Biological Report (*Rattus norvegicus*)
DOC III_5.3a_field efficacy_PT14
DOC III-A_6.1.3a_acute inhal tox

• File Insects

File Biological report

- a. Biological report the German cockroach (*Blattella germanica* L.)
- b. Biological report the Confused flour beetle (*Tribolium confusum*)
- c. Biological report the Red flour beetle (*Tribolium castaneum*)
- d. Biological report the Sawtoothed grain beetle (*Oryzaephilus surinamensis*)
- e. Biological report the Indian meal moth (*Plodia interpunctella*)
- f. Biological report the Mediterranean flour moth (*Ephestia kuehniella*)

File DOC III

- a. File Filed tests-can
 - i. DOC III_5.3.3b_efficacy_Blatella_field_can
 - ii. DOC III_5.3.3b_efficacy_Trib.confusum_field_can
 - iii. DOC III_5.3.3b_efficacy_Trib.castaneum_field_can
 - iv. DOC III_5.3.3b_efficacy_Oryzaephylus_field_can
 - v. DOC III_5.3.3b_efficacy_Plodia_field_can
 - vi. DOC III_5.3.3b_efficacy_Ephestia_field_can
- b. File Filed tests-cylinders
 - i. DOC III_5.3.2b_efficacy_Blatella_field_cylinder

- ii. DOC III_5.3.2b_efficacy_Trib.confusum_field_cylinder
- iii. DOC III_5.3.2b_efficacy_Trib.castaneum_field_cylinder
- iv. DOC III_5.3.2b_efficacy_Oryzaephylus_field_cylinder
- v. DOC III_5.3.2b_efficacy_Plodia_field_cylinder
- vi. DOC III_5.3.2b_efficacy_Ephestia_field_cylinder
- c. File Laboratory tests
 - i. DOC III_5.3.1b_efficacy_Blatella_lab
 - ii. DOC III_5.3.1b_efficacy_Trib.confusum_lab
 - iii. DOC III_5.3.1b_efficacy_Trib.castaneum_lab
 - iv. DOC III_5.3.1b_efficacy_Oryzaephylus_lab
 - v. DOC III_5.3.1b_efficacy_Plodia_lab
 - vi. DOC III_5.3.1b_efficacy_Ephestia_lab
- File Summary reports
 - a. Summary reports 2015
 - b. Summary reports 2017

- File Mites

- File Biological report

- a. Biological report the flour mite (*Acarus siro*)
- b. Biological report the storage mite (*Lepidoglyphus destructor*)
- c. Biological report the cheese mite (*Tyrophagus putrescentiae*)

- File DOC III

- a. File Filed tests-can
 - i. DOC III_5.3.3b_efficacy_Acarus siro_field_can
 - ii. DOC III_5.3.3b_efficacy_Lepidoglyphus destructor_field_can
 - iii. DOC III_5.3.3b_efficacy_Tyrophagus putrescentiae_field_can
- b. File Filed tests-cylinders
 - i. DOC III_5.3.2b_efficacy_Acarus siro_field_cylinder
 - ii. DOC III_5.3.2b_efficacy_Lepidoglyphus destructor_field_cylinder
 - iii. DOC III_5.3.2b_efficacy_Tyrophagus putrescentiae_field_cylinder
- c. File Laboratory tests
 - i. DOC III_5.3.1b_efficacy_Acarus siro_lab
 - ii. DOC III_5.3.1b_efficacy_Lepidoglyphus destructor_lab
 - iii. DOC III_5.3.1b_efficacy_Tyrophagus putrescentiae_lab

- File Summary reports

- a. Summary reports 2015
- b. Summary reports 2017

File SDS – safety data sheets for both formulation of biocidal preparation

- URAGAN D2 (BLUEFUME) cans EN 01_06_2017
- URAGAN D2 (BLUEFUME) cylinders EN 01_06_2017

File Validation- analytical reports

- GC validation_analytical report
for HCN measuring in laboratory conditions
- IR validation_analytical report
for HCN measuring in field conditions

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