SWARM

VITA-SWARM S.A.S 2. côte de la Jonchère F-78380 Bougival

Corresponding to EC Directive 93/112/EC

Date of Issue: May 10th 2005

Replaces the version of: 6th September 1999

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Trade Name:

B401/CERTAN

- 1. Identification of the Product and of the Company.
- 1.1 **Commercial Product Names:**

B401

CERTAN

1.2 Company name:

Description:

VITA-SWARM S.A.S.

2, côte de la Jonchère, F-78380 Bougival

+33 (0)1 30 82 29 89 Tel: Fax: +33 (0)1 30 82 27 77

1.3 Emergency Telephone Number: +33 (0)1 30 82 29 89

2. Composition / Information on Ingredients

Chemical characterisation of the preparation:

Aqueous suspension of B.t. subsp. aizawai spores and protein crystals

Chemical Class: Protein crystal

Formulation Type: Liquid suspension concentrate **BIOLOGICAL INSECTICIDE** Sector:

Contains: Protein crystals of Bacillus thurigiensis subsp. azawai

Content:

68038-71-1 (Bacillus thuringiensis non-hazardous) CAS-Reg. No.

EC-label: None

Hazardous ingredients: None

3. Hazards Identification

Most important hazards: harmful if swallowed

Keep out of the reach of children

Avoid inhalation and contact with skin or eyes

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4. First Aid Measures

- 4.1 After contact with the eyes:
 Rinse eyes thoroughly with plenty of water.
- 4.2 After contact with the skin:
 Rinse eyes thoroughly with plenty of water.
- 4.3 After inhalation: Remove from exposure.
- 4.4 After ingestion:

 Rinse mouth and throat with clear clean water.
- 4.5 Symptoms:
 None known to exist. If irritation persists get medical attention.
- 4.6 Note to physician:No specific antidote, treat symptomatically.

5. Fire Fighting Measures

- 5.1 Extinguishing media: Suitable agents: all.
- 5.2 Special advice in case of fire: None.
- 5.3 Fire and Explosion Hazards: None.
- 5.4 HMIS Rating
 Health = 0
 Flammability = 0
 Reactivity = 0

6. Accidental Release Measures

Avoid inhalation, skin and eye contact.

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After spillage: Spilled product should be removed immediately to avoid formation of dust from dried product. Take up by mechanical means. Spillage should be rinse or vacuumed. Dilute remainder with plenty of water. Provide for sufficient ventilation.

7. Handling and Storage

7.1. Handling:

No specific measure.

7.2. Storage:

Technical protective measures:

None

Maximum storage temperature:

30°C

Shelf-life in unopened containers:

at least 2 years (if stored at max. 25°C)

at least 5 years (if stored at max. 5°C)

8. Exposure Controls and Personal Protection

Personal protective equipment:

No specific equipment.

9. Physical and Chemical Properties

9.1 Form: suspension concentrate

9.2 Colour: light brown

9.3 Odour: pungent, bacterial odour

9.4 Change in physical state:

Melting point: not applicable Boiling point: not applicable

9.5 Flash point: not applicable

9.6 Ignition temperature: not applicable

9.7 Explosion limits: not applicable

9.8 Density: $1.07 \pm 0.03 \text{ kg/l} (18^{\circ}\text{C})$

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9.9 Vapour pressure: not applicable

9.10 Viscosity: 55 mPa.S (20°C)

 4.0 ± 1.0 (in 10% solution) 9.11 pH value (in H₂O):

10. Stability and Reactivity

10.1 Stability: Stable. Chemically not reactive

10.2 Reactivity: Non reactive

10.3 Incompatibility with other materials:

Not known to be incompatible with any packing

material

Will not occur 10.4 Hazardous Polymerisation:

10.5 Hazardous decomposition products:

No hazardous combustion or decomposition

products are known

Toxicological Information 11.

> not determined LD₅₀ acute oral: LD₅₀ acute dermal: not determined

Irritation:

Skin not determined not determined Eyes

Sensitisation:

Skin not determined

Similar biological products have shown low toxicity and are not classified as "hazardous" in the EEC classification system.

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12. Ecological Information

Product readily biodegradable.

Studies on non-target animals have been performed without identifying any organisms at risk. The following species have been included in the testing: mammals (rats, rabbits), freshwater aquatic invertebrate (*Daphnia magna*, rainbow trout), birds (Mallard, Bobwhite quail).

Studies on non-target insects are presently ongoing (however, studies on similar biological products have not identified any organisms at risk. Not toxic to honeybees).

13. Disposal Considerations

Do not contaminate water when disposing of equipment and washwater or disposal of waste.

Local regulations should be adhered to.

14. Transportation Information

Regulations

Class

UN-No.

PGr.

RID/ADR:

not classified

ICAO/IATA-DGR:

not classified (Ok for passenger aircraft)

GGVSee/IMDG-Code:

not classified (non-hazardous biological product)

UN:

not classified

15. Regulatory Information

Assessment by SWARM S.A. according to EEC Directives:

S2

Keep out of the reach of children

S3

Keep in a cool place

S13

Keep away from food, drink, and animal feedstuffs

S20/21

When using do not eat, drink or smoke