SAFETY DATA SHEET
According to EC-directive 2001/58/EC

Bacillus thuringiensis subsp. aizawai 15000 WG
Ref. Bta15000WG/pEU/01dossier

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product label name
XenTari WG (trade name)
Bacillus thuringiensis subsp. aizawai, strain ABTS-1857, 15000 IU/mg
water dispersible granules
GIFAP code: WG

Use
Biological insecticide (agricultural use)

Supplier
VALENT BIOSCIENCES CORPORATION
870 Technology Way, Suite 100
Libertyville, Illinois 60048
USA
Tel.: +1 847 9684700

Distributed by
VALENT BIOSCIENCES
a division of SUMITOMO CHEMICAL AGRO EUROPE S.A.S.
Parc d’Affaires de Crécy
2, Rue Claude Chappe
69370 Saint-Didier-au-Mont-d’Or
France
Tel.: +33 478 64 32 60

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a preparation in conformance to EC directives.

Information on ingredients:

Chemical description
Bacillus thuringiensis subsp. aizawai, strain ABTS-1857, 15000 IU/mg
water dispersible granules

Composition/Information on hazardous ingredients

<table>
<thead>
<tr>
<th>Number</th>
<th>IU/mg</th>
<th>CAS number</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15000</td>
<td>NA</td>
<td>Bacillus thuringiensis subsp. aizawai (strain ABTS-1857, serotype H-7)</td>
</tr>
</tbody>
</table>

Other information
NA: not applicable, the “chemical” classification (2001/59/EC) is not applicable to biological agents

3. HAZARD IDENTIFICATION

Not classified as dangerous according to EU directives 1999/45/EC and 2001/60/EC.

4. FIRST AID MEASURES

Symptoms and effects
No typical symptoms and effects known.

First aid

General
In cases of doubt, seek medical attention.

Inhalation
Move to fresh air. If symptoms persist, seek medical advice.

Skin
Remove contaminated clothing. Wash immediately with soap and water.

Eye
Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.

Ingestion
Rinse mouth. Never induce vomiting in unconscious or confused persons. Always seek medical attention.

Advice to physician
Symptomatic treatment is advised.

5. FIRE-FIGHTING MEASURES

Extinguishing media
Dry chemical powder, carbon dioxide, foam, sand or water.

Unsuitable extinguishing media
none known.

Special exposure hazards
none known.

Hazardous decomposition/combustion products
Thermal decomposition may evolve toxic and irritant vapours.

New Emergency Tel no 24/24hrs :
Europe, Israël +44 208 762 8322
Middle East & Africa +961 33 487 287
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**Protective equipment**  
Wear self-contained breathing apparatus. Wear suitable protective clothing and eye/face protection.

**Other information**  
Water used to extinguish a fire should not be allowed to enter the drainage system or watercourses.

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### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**  
Do not breathe dust. For personal protection see section 8.

**Environmental precautions**  
Do not allow to escape into sewage system or water courses.

**Methods for cleaning up**  
Clean up spills immediately. Sweep up and dispose as waste following local regulations. Do not wash residues into drains or other waterways.

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### 7. HANDLING AND STORAGE

**Handling**  
The usual precautions for handling chemicals should be observed. For personal protection see section 8.

**Fire and explosion prevention**  
No specific recommendations.

**Storage requirements**  
Store in a dry and cool place in tightly sealed original containers away from direct sunlight. Keep container in a well-ventilated place. Keep away from heat and strong oxidizers such as chlorine.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**  
Provide adequate ventilation.

**Exposure limits**  
No exposure limits have been established for this material.

**Personal protection**  

- **Respiratory**
  In case of dust formation use dust mask.

- **Hand**
  Wear protective rubber gloves

- **Eye**
  Wear safety goggles or face shield.

- **Skin and body**
  Wear suitable protective clothing.

**Other information**  
Launder clothes before reuse.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**  
fine granules

**Colour**  
light brown

**Odour**  
musty odour

**Boiling point/range**  
not applicable

**Melting point/range**  
not determined

**Flash point**  
not applicable

**Flammability**  
not "highly flammable"

**Autoignition temperature**  
225°C

**Explosive properties**  
not explosive

**Explosion limits**  
not applicable

**Oxidising properties**  
not oxidising

**Vapour pressure**  
not applicable

**Density**  
not applicable

**Bulk density**  
0.383 g/ml (23°C)

**Solubility in water**  
suspends and partially soluble in water

**Solubility in other solvents**  
not determined

**pH value**  
4.7 (1% in water)

**Partition coefficient n-octanol/water**  
not determined

**Relative vapour density (air = 1)**  
not determined

**Viscosity**  
not applicable

**Surface tension**  
not determined
SAFETY DATA SHEET
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10. STABILITY AND REACTIVITY

Stability
Stable under recommended storage and handling conditions (see section 7).

Conditions to avoid
Avoid high temperatures. Alkalinity inactivates the product.

Materials to avoid
Oxidizers.

Hazardous decomposition products
Thermal decomposition may evolve toxic and irritant vapours.

11. TOXICOLOGICAL INFORMATION

Name
Bacillus thuringiensis subsp. aizawai, 15000 IU/mg water dispersible granules

Acute toxicity
- Oral LD50: rat: > 5000 mg/kg
- Dermal LD50: rabbit: > 2000 mg/kg
- Inhalation LC50: rat (4 hours): > 3.05 mg/l (maximum feasible concentration; whole body)

Irritation
- Skin: slightly irritant
- Eye: slightly irritant
- Sensitization: not sensitizing (maximisation test)

Other information
Active substance, Bacillus thuringiensis subsp. aizawai, technical grade
Genotoxicity: Reverse Mutation Test negative.

12. ECOLOGICAL INFORMATION

Name
Bacillus thuringiensis subsp. aizawai, 15000 IU/mg water dispersible granules

Ecotoxicity
Bees
The maximum label rate (2 kg/ha), applied at 4 weekly intervals is the NOEC for bees (Apis mellifera)

Algae
Acute toxicity, (Selenastrum capricornutum): 72h-ECr50 = 275 mg/l ; 72h-ECb50 = 119 mg/l.

No other experimental ecological data are available on the preparation as such. The following data are applicable to the active substance:

Name
Bacillus thuringiensis subsp. aizawai, technical grade

Ecotoxicity
Fish
Acute toxicity, 96h-LC50 (Oncorhynchus mykiss): > 100 mg/L

Daphnia
Acute toxicity, 10d-EC50 (Daphnia magna): 12 mg/l (NOEC = 5.9 mg/l – 10 days)

Birds
Acute toxicity, 5d-LC50 (Bobwhite quail): > 1714 mg/kg b.w./d
(Mallard duck): > 1714 mg/kg b.w./d

Earthworm
Acute toxicity, 30d-LC50 (Eisenia fetida): > 1000 mg/kg dry soil
(NOEC = 1000 mg/kg dry soil)

Fate
Persistence and degradability
Bta shows a rapid loss of activity in response to UV light.

Degradation Biotic
Not determined.

Degradation Abiotic
Not determined.

Bioaccumulation
Not applicable; the substance is not pathogenic to non-target organisms and has not been seen to reproduce in non-target organisms.

13. DISPOSAL CONSIDERATIONS

Product
According to local regulations. For further advice contact manufacturer

Contaminated packaging
According to local regulations

14. TRANSPORT INFORMATION

Land transport: ADR/RID
ADR/RID class
not restricted

Label(s)
not relevant

Hazard Identification no.
not relevant

Trem-Card
not relevant

Proper shipping name
not relevant

Packing group
not relevant

Substance Identification no.
not relevant

UN number
none

Date of revision: 8 March 2007
SAFETY DATA SHEET
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Sea transport: IMO/IMDG code
Class not restricted
Marine pollutant no
EMS not relevant
Proper shipping name not relevant

UN number none
Packing group not relevant

Air transport: ICAO-TI/IATA-DGR
Class not restricted
Proper shipping name not relevant

UN number none
Packing group not relevant

15. REGULATORY INFORMATION
Chemical description Bacillus thuringiensis subsp. aizawai, 15000 IU/mg water dispersible granules
GIFAP code: WG

Labelling according to EC directives
EC-number See section 2
Classification based on Tests

Symbol(s) none
R(isk) phrase(s) none
S(afety) phrase(s) S36/37 : Wear suitable protective clothing and gloves.

16. OTHER INFORMATION
This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user’s own responsibility to make sure that the information is appropriate and complete for his special use of this product.

Full text of risk phrase(s) used in this document:
none

History
Date of previous version 23 November 2005 (revision "dossier")
Date of revision 8 March 2007
Revision 0.1 dossier
Composed by O. Mercier / D. Munday

Changes were made in section nos 1, 2, 7, 12, according to the EU dossier.