SAFETY DATA SHEET
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

Volley
Revision Date 02-Feb-2015 Version 2 Product No FNG56791-44
Publish Date 02-Feb-2015

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Volley
Synonyms Fluazinam 500 SC
Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Fungicide
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Address ADAMA Agricultural Solutions UK Ltd
Unit 15, Thatcham Business Village Colthrop Way,
Thatcham Berkshire RG19 4LW, UK: 01635 860555
Fax: 01635 861555

For further information, please contact

Email address ukenquiries@adama.com***

1.4. Emergency telephone number

Emergency Telephone National Chemical Emergency Centre (UK):
Tel: 01865 407333 (24 hours)

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Reproductive Toxicity Category 2 - (H361d)
Acute aquatic toxicity Category 1 - (H400)
Hazardous to the Aquatic Category 1 - (H410)
Environment - Chronic Hazard

Classification according to Directive 67/548/EEC or 1999/45/EC
Full text of R-phrases: see section 16
Repr. cat. 3;R63 - N;R50-53
2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

![Hazard pictograms]

Signal word  Warning

Hazard Statements  
H361d - Suspected of damaging the unborn child  
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements  
P102 - Keep out of reach of children  
P201 - Obtain special instructions before use  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P501 - Dispose of contents/container to an approved waste disposal plant***

EU Specific Hazard Statements  
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use  
EUH208 - Contains Fluazinam and 1,2-Benzisothiazolin-3-one. May produce an allergic reaction***

Additional phrases for PPP  
SP1 - Do not contaminate water with the product or its container

2.3. Other hazards

No information available

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**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

### 3.2. Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight-%</th>
<th>CAS No</th>
<th>EC No</th>
<th>Index No</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Classification according to 67/548/EEC</th>
<th>M-Factor</th>
<th>REACH Registration Number</th>
</tr>
</thead>
</table>
| Fluazinam     | 38-42    | 79622-59-6 | 451-560-1*** | 612-287-00-5*** | Acute Tox. 4 (H332)  
Eye Dam. 1 (H318)  
Skin Sens. 1 (H317)  
Repr. 2 (H361d)  
Aquatic Acute 1 (H400)  
Aquatic Chronic 1 (H410) | Xn; R20  
Xi; R41  
R43  
Repr. Cat. 3;  
R63  
N; R50-53*** | M=10  
M=10*** | - |
| Poly(oxy-1,2-ethanediyl),.alpha.-sulfo-.omega.-[tris(1-phenylethyl)phenoxy -.ammonium salt | 1.5-2.5 | 119432-41-6 | - | - | Aquatic Chronic 3 (H412) | R52-53 | - |

Full text of R-phrases: see section 16  
Full text of H- and EUH-phrases: see section 16

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**Section 4: FIRST AID MEASURES**
4.1. Description of first aid measures

**General advice**
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!

**Inhalation**
Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

**Skin Contact**
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

**Eye contact**
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

**Ingestion**
Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

**Self-protection of the first aider**
Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed

**Symptoms**
None known

4.3. Indication of any immediate medical attention and special treatment needed

**Note to physicians**
Treat symptomatically.

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**Section 5: FIRE-FIGHTING MEASURES**

5.1. Extinguishing media

**Suitable Extinguishing Media**
Dry chemical, Carbon dioxide (CO2), Water spray or fog, Foam.

**Unsuitable Extinguishing Media**
No information available.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus
In the event of fire and/or explosion do not breathe fumes

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**Section 6: ACCIDENTAL RELEASE MEASURES**

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**
Use personal protective equipment as required.

**For emergency responders**
Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.
6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other Information
See also section 8,13

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling
Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

7.3. Specific end use(s)

Risk Management Methods (RMM)
The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Derived No Effect Level (DNEL)  No information available
Predicted No Effect Concentration (PNEC)  No information available.

8.2. Exposure controls

Engineering Controls  Ensure adequate ventilation, especially in confined areas.
Personal protective equipment
Eye/face protection  Tight sealing safety goggles.
Body Protection  Suitable protective clothing.
General Hygiene Considerations  When using do not eat, drink or smoke. Wash contaminated clothing before reuse.
Environmental exposure controls  Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9.2. Other information

Appearance
Physical state: Liquid
Color: yellow
Odor: Slight characteristic
Odor threshold: No data available

pH: 6.7 - 7.7

Melting point/freezing point °C: No data available
Boiling point/boiling range °C: No data available
Flash point °C: > 79
Evaporation rate: Not Applicable
Flammability (solid, gas): Not Applicable
Upper/lower flammability or explosive limits: No data available

Vapor pressure kPa: 7.1 x 10^-6 Pa
Vapor density: No data available
Relative density: 1.23 - 1.33***
Solubility(ies) mg/l: No data available
Partition Coefficient (n-octanol/water) Log Pow: See Section 12 for more information
Autoignition temperature °C: > 600
Decomposition temperature °C: 148
Kinematic viscosity mm2/s 40 °C: Not Applicable
Explosive properties: No
Oxidizing properties: No

Bulk density g/ml: -
Surface tension mN/m: 36.2 mN/m 25 °C

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity
Not available.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid
Heat, flames and sparks.

10.5. Incompatible materials
No information available

10.6. Hazardous decomposition products
None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects
Acute toxicity

<table>
<thead>
<tr>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 mg/kg: &gt; 2000</td>
<td>Rat</td>
<td>OECD 423</td>
<td></td>
</tr>
<tr>
<td>Dermal LD50 mg/kg: &gt; 2000</td>
<td>Rat</td>
<td>OECD 402</td>
<td></td>
</tr>
<tr>
<td>Inhalation LC50 mg/l/4h: &gt; 4.82</td>
<td>Rat</td>
<td>OECD 403</td>
<td>Maximum attainable concentration</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Non-irritating to the skin | Rabbit | OECD 404 |
Serious eye damage/eye irritation: Not irritating to eyes | Rabbit | OECD 405 |
Respiratory/skin sensitization: Not a skin sensitizer*** | Guinea pig | OECD 406 | skin |

Chronic toxicity

Germ cell mutagenicity
Chemical Name: Fluazinam: Not classified

Carcinogenicity
Chemical Name: Fluazinam: Not Carcinogenic

Reproductive toxicity
Chemical Name: Fluazinam: H361d - Suspected of damaging the unborn child***

STOT - single exposure
Chemical Name: Fluazinam: No data available***

STOT - repeated exposure
Chemical Name: Fluazinam: No data available***

Aspiration hazard
Chemical Name: Fluazinam: No data available***

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic toxicity

<table>
<thead>
<tr>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish 96-hour LC50 mg/l: 0.236</td>
<td>Oncorhynchus mykiss</td>
<td>92/69/EC C.1 L383A/179</td>
<td>Static</td>
</tr>
<tr>
<td>Crustacea 48-hour EC50 mg/l: 0.36</td>
<td>Daphnia magna</td>
<td>OECD 202</td>
<td></td>
</tr>
<tr>
<td>Algae 72-hour EC50 mg/l: 0.052</td>
<td>P. subcapitata</td>
<td>OECD 201</td>
<td></td>
</tr>
<tr>
<td>Other plants EC50 mg/l:</td>
<td></td>
<td>***</td>
<td>No data available***</td>
</tr>
</tbody>
</table>

Terrestrial Toxicity

Birds Oral LD50 mg/kg
Chemical Name: Fluazinam: 1782 | Bobwhite quail | US EPA 71-1*** |

Bees Oral LD50 μg/bee
Chemical Name: Fluazinam: 98.9*** | OECD 213 OECD 214*** |

12.2. Persistence and degradability
Abiotic Degradation

Water DT50 days

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluazinam</td>
<td>1.9</td>
<td>BBA IV: 5-1</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Soil DT50 days

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluazinam</td>
<td>72.5</td>
<td>SETAC</td>
<td>20*** °C***</td>
</tr>
</tbody>
</table>

Biodegradation

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluazinam</td>
<td>Not readily biodegradable</td>
<td>OECD 301 F</td>
<td></td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Partition Coefficient Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n-octanol/water) Log Pow</td>
<td>Fluazinam</td>
<td>4.87</td>
</tr>
</tbody>
</table>

Bioconcentration factor (BCF)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluazinam</td>
<td>960 - 1090</td>
<td>OECD 106***</td>
<td>Koc</td>
</tr>
</tbody>
</table>

Mobility in soil

<table>
<thead>
<tr>
<th>Adsorption/Desorption Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td>Fluazinam</td>
<td>1958***</td>
</tr>
</tbody>
</table>

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

- Waste from residues/unused products: Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Contaminated packaging: Improper disposal or reuse of this container may be dangerous and illegal.
- Other Information: Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

<table>
<thead>
<tr>
<th>UN/ID No</th>
<th>Proper shipping name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Marine pollutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>3082</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam)</td>
<td>9</td>
<td>III</td>
<td>Yes</td>
</tr>
</tbody>
</table>
14.6 Special precautions for user

**RID/ADR**
- **14.1 UN/ID No**: 3082
- **14.2 Proper shipping name**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam)
- **14.3 Hazard Class**: 9
- **14.4 Packing Group**: III
- **14.5 Environmental hazard**: Yes
- **14.6 Special precautions for user**

**ICAO/IATA**
- **14.1 UN/ID No**: 3082
- **14.2 Proper shipping name**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam)
- **14.3 Hazard Class**: 9
- **14.4 Packing Group**: III
- **14.5 Environmental hazard**: Yes
- **14.6 Special precautions for user**

**14.7 Transport in bulk according to** Not Applicable
Annex II of MARPOL 73/78 and the IBC Code

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**Section 15: REGULATORY INFORMATION**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical safety assessment
A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

**Section 16: OTHER INFORMATION**

**Full text of R-phrases referred to under sections 2 and 3**
- **R20** - Harmful by inhalation
- **R41** - Risk of serious damage to eyes
- **R43** - May cause sensitization by skin contact
- **R63** - Possible risk of harm to the unborn child
- **R50/53** - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- **R52/53** - Harmful to aquatic life with long lasting effects

**Full text of H-Statements referred to under sections 2 and 3**
- **H332** - Harmful if inhaled
- **H318** - Causes serious eye damage
- **H361d** - Suspected of damaging the unborn child
- **H400** - Very toxic to aquatic life
- **H410** - Very toxic to aquatic life with long lasting effects
- **H412** - Harmful to aquatic life with long lasting effects

**Revision Note**

*** - Change from previous version.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet