AMISTAR TOP

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

1.1 Product identifier

Product name : AMISTAR TOP
Design code   : A13703G

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

Use : Fungicide

1.3 Details of the supplier of the safety data sheet

Company    : Syngenta UK Limited
            CPC4, Capital Park
            Fulbourn, Cambridge
            CB21 5XE
Telephone  : (01223) 883400
Telefax    : (01223) 882195
Website    : www.syngenta.co.uk

1.4 Emergency telephone number

: +44 (0) 1484 538444

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008

Skin Sensitisation       Category 1     H317
Acute toxicity (inhalation) Category 4     H332
Acute aquatic toxicity    Category 1     H400
Chronic aquatic toxicity  Category 1     H410

For the full text of the H-Statements mentioned in this Section, see Section 16.
2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

<table>
<thead>
<tr>
<th>Hazard pictograms</th>
<th>Signal Word</th>
<th>:Warning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Statements</td>
<td>:H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td></td>
<td>:H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td></td>
<td>:H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>Precautions Statements</td>
<td>:P102</td>
<td>Keep out of reach of children</td>
</tr>
<tr>
<td></td>
<td>:P261</td>
<td>Avoid breathing dust/fumes/gas/mist/vapours/spray.</td>
</tr>
<tr>
<td></td>
<td>:P280</td>
<td>Wear protective glove/protective clothing/eye protection/face protection</td>
</tr>
<tr>
<td></td>
<td>:P302/P352</td>
<td>IF ON SKIN: Wash with plenty of soap and water</td>
</tr>
<tr>
<td></td>
<td>:P304/P340</td>
<td>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</td>
</tr>
<tr>
<td></td>
<td>:P312</td>
<td>Call a POISON CENTRE or doctor/physician if you feel unwell.</td>
</tr>
<tr>
<td></td>
<td>:P333/P313</td>
<td>If skin irritation or rash occurs. Get medical advice/attention</td>
</tr>
<tr>
<td></td>
<td>:P391</td>
<td>Collect spillage</td>
</tr>
<tr>
<td></td>
<td>:P501</td>
<td>Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed for as non-hazardous waste.</td>
</tr>
<tr>
<td>Supplemental Information</td>
<td>:EUH401</td>
<td>To avoid risks to human health and the environment comply with the instructions for use.</td>
</tr>
</tbody>
</table>

Hazardous components which must be listed on the label: azoxystrobin

2.3 Other hazards

None known.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No. EC No. Registration Number</th>
<th>Classification (REGULATION (EC) No. 1272/2008)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azoxystrobin</td>
<td>131860-33-8</td>
<td>Acute Tox.3; H331 Aquatic Acute1; H400 Aquatic Chronic1; H410</td>
<td>18.2% w/w</td>
</tr>
<tr>
<td>Difenoconazole</td>
<td>119446-68-3</td>
<td>Acute Tox.4; H302 Aquatic Acute1; H400 Aquatic Chronic1; H410</td>
<td>11.4% w/w</td>
</tr>
<tr>
<td>Alcohols, C16-18, ethoxylated</td>
<td>68439-49-6</td>
<td>Acute Tox.4; H302 Eye Dam.1; H318</td>
<td>15 – 25% w/w</td>
</tr>
</tbody>
</table>

Substances for which there are Community workplace exposure limits.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.

Inhalation: Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control centre immediately.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting: contains petroleum distillates and/or aromatic solvents.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No information available

4.3 Indication of any immediate medical attention and special treatment needed

Medical advice: There is no specific antidote available. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media
Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Use alcohol-resistant foam or water spray.
Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture
As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.

5.3 Advice for fire-fighters:
Wear full protective clothing and self-contained breathing apparatus. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions:
Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). If the product contaminates rivers and lakes or drains inform respective authorities.

6.4 Reference to other sections
Refer to protective measures listed in sections 7 and 8.
Refer to disposal considerations listed in section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
No special protective measures against fire required. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities
No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)
Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>Exposure limit(s)</th>
<th>Type of exposure limit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>azoxystrobin</td>
<td>2 mg/m³</td>
<td>8 h TWA</td>
<td>SYNGENTA</td>
</tr>
<tr>
<td>difenoconazole</td>
<td>8 mg/m³</td>
<td>8 h TWA</td>
<td>SYNGENTA</td>
</tr>
</tbody>
</table>

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

8.2 Exposure controls

**Engineering measures**

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne dust is generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

**Protective measures**

The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

**Respiratory protection**

A particulate filter respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

**Hand protection**

Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be changed when breakthrough is suspected. Suitable material: nitrile rubber.

**Eye protection**

Eye protection is not usually required. Follow any site specific eye protection policies.

**Skin and body protection**

Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.). Wear as appropriate: impervious protective suit.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Form</th>
<th>Colour</th>
<th>Odour</th>
<th>Odour Threshold</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Liquid</td>
<td>Light yellow to yellow</td>
<td>Weak</td>
<td>No data available</td>
<td>5 – 9 at 1% w/v</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

AMISTAR TOP

Version 6 - This version replaces all previous versions.
Revision Date 26.08.13

Melting point/range: 7.5 – 8.5 at 100% w/v (20 °C)
Boiling point/boiling range: No data available
Flash point: >100 °C at 755 mmHg
Evaporation rate: No data available
Flammability (solid, gas): No data available
Lower explosion limit: No data available
Upper explosion limit: No data available
Vapour pressure: No data available
Relative vapour density: No data available
Density: 1.11 g/cm³ at 20 °C
Solubility in other solvents: No data available
Partition Coefficient: No data available
n-octanol/water: No data available
Autoignition temperature: 505 °C
Thermal decomposition: No data available
Viscosity, dynamic: 169 – 646 mPa.s at 20 °C
98.0 – 472 mPa.s at 40 °C
Viscosity, kinematic: No data available
Explosive properties: Not explosive
Oxidizing properties: Not oxidising

9.2 Other information

Miscibility: Miscible
Surface tension: 27.9 mN/m at 20 °C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No information available
10.2 Chemical Stability: No information available
10.3 Possibility of hazardous reactions: None known. Hazardous polymerisation does not occur.
10.4 Conditions to avoid: No information available
10.5 Incompatible materials: No information available
10.6 Hazardous decomposition products: Combustion or thermal decomposition will evolve toxic and irritant vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity: LD50 female rat, > 2,000 mg/kg
Acute inhalational toxicity: LC50 male and female rat, 2.06 – < 5.17 mg/l, 4 h
Acute dermal toxicity: LD50 male and female rat, > 2,000 mg/kg
Skin corrosion/irritation: Rabbit: slightly irritating
Serious eye damage/eye irritation: Rabbit: mildly irritating
Respiratory or skin sensitisation: Buehler Test guinea pig: a skin sensitisier in animal tests.
Germ cell mutagenicity:
  azoxystrobin: Did not show mutagenic effects in animal experiments.
  difenoconazole: Did not show mutagenic effects in animal experiments
Carcinogenicity:
  azoxystrobin: Did not show carcinogenic effects in animal experiments.
  difenoconazole: Did not show carcinogenic effects in animal experiments.
Reproductive toxicity: 

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

<table>
<thead>
<tr>
<th>Toxicity to fish</th>
<th>LC50 Oncorhynchus mykiss (rainbow trout), 1.7 mg/l, 96h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to aquatic</td>
<td>LC50 Cyprinus carpio (Carp), 4.2 mg/l, 96h</td>
</tr>
<tr>
<td>invertebrates</td>
<td></td>
</tr>
<tr>
<td>Toxicity to aquatic</td>
<td>EC50 Daphnia magna (Water flea), 1.1 mg/l, 48h</td>
</tr>
<tr>
<td>plants</td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

Biodegradability:

- Azoxystrobin is not readily biodegradable
- Degradation half life: 214 d
  The substance is stable in water
  Degradation half life: 1 d
  Not persistent in water

Stability in water:

- Degradation half life: 80 d
  Not persistent in soil
  Degradation half life: 149 - 187 d
  Not persistent in soil

12.3 Bioaccumulative potential

- Azoxystrobin: Does not bioaccumulate.
- Difenoconazole: High potential to bioaccumulate

12.4 Mobility in soil

- Azoxystrobin: Low to very high mobility in soil.
- Difenoconazole: Low mobility in soil

12.5 Results of PBT and vPvB assessment

- Neither azoxystrobin or difenoconazole are considered to be persistent, bioaccumulating nor toxic (PBT).
- Neither azoxystrobin or difenoconazole are considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Classification of the product is based on the summation of the concentrations of classified components

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product:

- Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into
Contaminated packaging: Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

### SECTION 14: TRANSPORT INFORMATION

#### Land transport (ADR/RID)

<table>
<thead>
<tr>
<th>14.1 UN Number</th>
<th></th>
<th>UN 3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>:</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. . (AZOXYSTROBIN AND DIFENOCONAZOLE)</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>:</td>
<td>9</td>
</tr>
<tr>
<td>14.4 Packing Group</td>
<td>:</td>
<td>III</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>:</td>
<td>Environmentally hazardous</td>
</tr>
<tr>
<td>Labels</td>
<td>:</td>
<td>9</td>
</tr>
</tbody>
</table>

#### Sea transport (IMDG)

<table>
<thead>
<tr>
<th>14.1 UN Number</th>
<th></th>
<th>UN 3082</th>
</tr>
</thead>
<tbody>
<tr>
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<td>III</td>
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<tr>
<td>14.5 Environmental hazards</td>
<td>:</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>Labels</td>
<td>:</td>
<td>9</td>
</tr>
</tbody>
</table>

#### Air transport (IATA-DGR)

<table>
<thead>
<tr>
<th>14.1 UN Number</th>
<th></th>
<th>UN 3082</th>
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</thead>
<tbody>
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<td>:</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>Labels</td>
<td>:</td>
<td>9</td>
</tr>
</tbody>
</table>

| 14.6 Special precautions for user | : | none |

14.6 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable
SECTION 15: REGULATORY INFORMATION

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

GHS-Labelling

<table>
<thead>
<tr>
<th>Hazard pictograms</th>
<th>Signal Word</th>
<th>Hazard Statements</th>
<th>Precautions Statements</th>
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</thead>
<tbody>
<tr>
<td>!</td>
<td>:Warning</td>
<td>:H317 May cause an allergic skin reaction</td>
<td>:P102 Keep out of reach of children</td>
</tr>
<tr>
<td>☢</td>
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<td>:H332 Harmful if inhaled</td>
<td>:P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.</td>
</tr>
<tr>
<td>☢</td>
<td></td>
<td>:H410 Very toxic to aquatic life with long lasting effects</td>
<td>:P280 Wear protective glove/protective clothing/eye protection/face protection</td>
</tr>
<tr>
<td>:P302/P352 IF ON SKIN: Wash with plenty of soap and water</td>
<td></td>
<td>:P304/P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</td>
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<td>:P312 Call a POISON CENTRE or doctor/physician if you feel unwell.</td>
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<td></td>
</tr>
</tbody>
</table>

Supplemental Information :EUH401 To avoid risks to human health and the environment comply with the instructions for use.

Hazardous components which must be listed on the label: azoxystrobin

15.2 Chemical Safety Assessment
A Chemical Safety Assessment is not required for this substance.

SECTION 16: OTHER INFORMATION

Further information

Approval number, MAPP 12761.

Use plant protection products safely. Always read the label and product information before use.

Based upon SDS release dated 26/08/2013, version 6 with local amendment.
Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H331 Toxic if inhaled
H332 Harmful if inhaled
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

The information provided in this 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.

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