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Revision Date 11.09.2014

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name : HEADWAY

Design code : A14212C

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

Use : Fungicide

1.1 Details of the supplier of the safety data sheet

**Company** Syngenta UK Limited

CPC4, Capital Park Fulbourn, Cambridge

**CB21 5XE** 

**1.3 Telephone** : (01223) 883400

**Telefax** : (01223) 882195

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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

Eye irritationCategory 2H319Reproductive toxicitySub-category 1BH360DfAcute aquatic toxicityCategory 1H400Chronic aquatic toxicityCategory 1H410

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

N, Dangerous for the environment

T, Toxic

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R61: May cause harm to the unborn child.

R62: Possible risk of impaired fertility

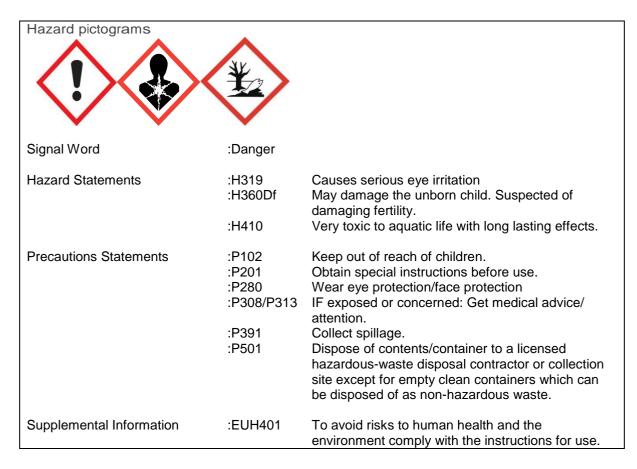
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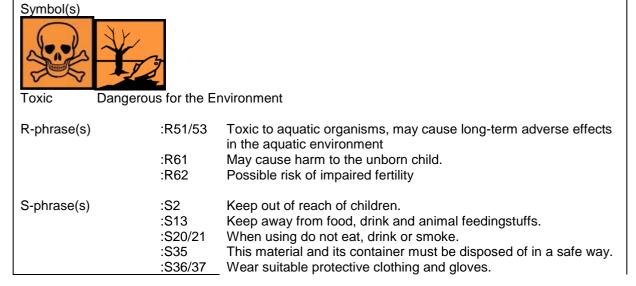
#### 2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008



Hazardous components which must be listed on the label: TETRAHYDROFURFURYL ALCOHOL

Labelling: EU Directives 67/548/EEC or 1999/45/EC



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:S57 Use appropriate container to avoid environmental contamination.

Special labelling of certain mixtures

To avoid risks to man and the environment, comply with instructions for use.

EUH208 Contains propiconazole. May produce an allergic reaction.

## 2.1 Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

#### **Hazardous components**

Chemical Name	CAS-No. EC No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration
TETRAHYDROFUR FURYL ALCOHOL	97-99-4 202-625-6	T R61 R62 R36	Repr. 1B: H360Df Eye Irrit.2; H319	60 - 80 % W/W
poly(oxy-1,2-eth anediyl), -[2,4,6-tris(1-phe nylethyl)phenyl]- -hydroxy-	99734-09-5 70559-25-0	R52/53	Aquatic Chronic3; H412	10 - 15 % W/W
propiconazole	60207-90-1 262-104-4	Xn, N R22 R43 R50/53	Acute Tox.4; H302 Skin Sens.1B; H317 Aquatic Acute1; H400 Aquatic Chronic1; H410	9.5 % W/W
azoxystrobin	131860-33-8	T, N R23 R50/53	Acute Tox.3; H331 Aquatic Acute1; H400 Aquatic Chronic1; H410	5.7 % W/W

Substances for which there are Community workplace exposure limits.

For the full text of the R-phrases mentioned in this Section, see Section 16.

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 centre 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.

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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.

## 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).

# 6.4 Reference to other sections

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

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#### **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

Components	Exposure limit(s)	Type of exposure limit	Source
azoxystrobin	2 mg/m3	8 h TWA	SYNGENTA
propiconazole	8 mg/m3	8 h TWA	SYNGENTA

## 8.2 Exposure controls

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

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 : No personal respiratory protective equipment normally required. A

particulate filter respirator may be necessary until effective technical

measures are installed.

Hand protection : Suitable material: nitrile rubber.

Break through time: > 480 min Glove thickness: 0.5 mm

Chemical resistant gloves should be used. Gloves should be

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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 discarded and replaced if there is any indication of degradation or chemical

breakthrough.

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 reuse, 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

Physical State : liquid Form : liquid

**Colour** : Light yellow to brown

Odour : characteristic
Odour Threshold : No data available
pH : 4-8 at 1% w/v

Melting point/range : No data available
Boiling point/boiling range : No data available
Flash point : 78 °C at 752 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 : 1.088 g/cm³

Solubility in other solvents : No data available
Partition Coefficient: n-octanol/water : No data available

Autoignition temperature : 265 °C

Thermal decomposition : No data available
Viscosity, dynamic : 18 mPa.s at 20 °C
Viscosity, kinematic : No data available
Explosive properties : Not explosive
Oxidizing properties : Not oxidising

9.2 Other information

reactions

Surface tension : 38.5 mN/m at 20 °C

# **SECTION 10. STABILITY AND REACTIVITY**

**10.1 Reactivity** : See Section 10.3 "Possibility of hazardous reactions"

**10.2 Chemical Stability** : The product is stable when used in normal

conditions

**10.3** Possibility of hazardous : No hazardous reactions by normal handling and

storage according to provisions.

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10.4 Conditions to avoid No decomposition if used as directed.

10.5 Incompatible materials No substances are known which lead to the formation of hazardous substances or thermal

reactions.

10.6 Hazardous decomposition Combustion or thermal decomposition will evolve

products toxic and irritant vapours.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects

Acute oral toxicity LD50 female rat, 2,176 mg/kg

Acute inhalational toxicity LC50 male and female rat, >2.68 mg/l, 4h Acute dermal toxicity LD50 male and female rat, > 5,050 mg/kg

Skin corrosion/irritation Rabbit: non-irritating

Serious eye damage/eye Rabbit: moderately irritating

irritation

Respiratory or skin sensitisation Guinea pig: not a skin sensitiser in animal tests.

Germ cell mutagenicity

Did not show mutagenic effects in animal experiments.

propiconazole azoxystrobin Did not show mutagenic effects in animal experiments.

Carcinogenicity

propiconazole Did not show carcinogenic effects in animal experiments.

Did not show carcinogenic effects in animal experiments. azoxystrobin

Reproductive toxicity

Tetrahydrofurfuryl alchol May damage the unborn child. Suspected of damaging fertility.

propiconazole Did not show reproductive toxicity effects in animal experiments. azoxystrobin Did not show reproductive toxicity effects in animal experiments.

STOT – repeated exposure

propiconazole No adverse effect has been observed in chronic toxicity tests. No adverse effect has been observed in chronic toxicity tests. azoxystrobin

# **SECTION 12. ECOLOGICAL INFORMATION**

## 12.1 Toxicity

Toxicity to fish : LC50 Cyprinius carpio (carp), 10.7 mg/l, 96h

> Based on test results obtained with similar product. : EC50 Daphnia magna (water flea), 2.2 mg/l, 48h

Toxicity to aquatic invertebrates Based on test results obtained with similar product.

: ErC50 Pseudokirchneriella subcapitata (green algae), 8.2 mg/l. 96h Toxicity to aquatic plants

EbC50 Pseudokirchneriella subcapitata (green algae), 1.6 mg/l. 96h

Based on test results obtained with similar product.

# 12.2 Persistence and degradability

Biodegradability

propiconazole Not readily biodegradable. azoxystrobin Not readily biodegradable.

Stability in water

Propiconazole Degradation half life: 28 - 64 d. Stable in water azoxystrobin Degradation half life: 214 d. Stable in water

Stability in soil

Propiconazole Degradation half life: 66 - 170 d. Not persistent in soil Degradation half life: 80 d. Not persistent in soil azoxystrobin

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# 12.3 Bioaccumulative potential

: Low to medium mobility in soil. propiconazole azoxystrobin

Does not bioaccumulate

12.4 Mobility in soil

propiconazole azoxystrobin

: Low to medium mobility in soil. Low to very high mobility in soil

## 12.5 Results of PBT and vPvB assessment

propiconazole azoxystrobin

: These substances are not considered to be persistent,

bioaccumulating nor toxic (PBT).

These substances are not considered to be very persistent nor

very bioaccumulating (vPvB).

12.6 Other adverse effects

Other information : 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 sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in

compliance with local regulations.

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)

14.1	UN Number	:	UN 3082
14.2	UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
			N.O.S. (PROPICONAZOLE AND AZOXYSTROBIN)
14.3	Transport hazard class(es)	:	9
14.4	Packing Group	;	III
Label	s	:	9
14.5	Environmental hazards	:	Environmentally hazardous
	Tunnel restriction code		E

# Sea transport (IMDG)

14.1	UN Number	:	UN 3082
14.2	UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
			N.O.S. (PROPICONAZOLE AND AZOXYSTROBIN)
14.3	Transport hazard class(es)	:	9
14.4	Packing Group	;	III
Labels :		:	9
14.5	Environmental hazards	:	Marine pollutant

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# Air transport (IATA-DGR)

14.1	UN Number	:	UN 3077
14.2	UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
			N.O.S. (PROPICONAZOLE AND AZOXYSTROBIN)
14.3	Transport hazard class(es)	:	9
14.4	Packing Group	;	III
Labels		:	9
14.6	Special precautions for	:	none
	user		

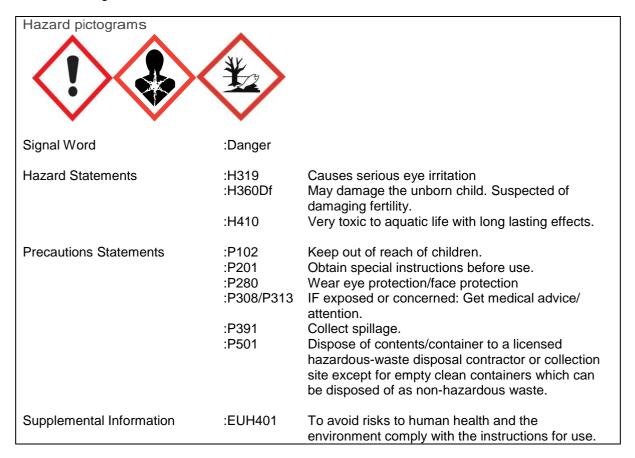
## 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## **SECTION 15. REGULATORY INFORMATION**

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

# **GHS-Labelling**



Hazardous components which must be listed on the label: Tetrahydrofurfuryl alcohol

# 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

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## **SECTION 16. OTHER INFORMATION**

## **Further information**

Approval number, MAPP 14396.

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

Based upon SDS release dated 11/09/2014, version 6 with local amendment.

Full text of R-phrases referred to under sections 2 and 3:

R22 Harmful if swallowed R23 Toxic by inhalation R36 Irritating to eyes

R43 May cause sensitisation by skin contact

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment

R61 May cause harm to the unborn child R62 Possible risk of impaired fertility

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed

H317 May cause an allergic skin reaction H319 Causes serious eye irritation

H331 Toxic if inhaled

H360Df May damage the unborn child. Suspected of damaging fertility.

H400 Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects.Harmful to aquatic life with long lasting effects.

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