

BONZI

Version 14 - This version replaces all previous versions.

Revision Date 16.11.2015

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

1.1 Product identifier

Product name : **BONZI**

Design code : A10784A

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

Use : Plant growth regulator

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 1484 538444

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008

Chronic aquatic toxicity Category 2 H411

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


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2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

Hazard pictograms		
		
Hazard Statements	:H411	Toxic to aquatic life with long lasting effects.
Precautions Statements	:P273	Avoid release to the environment.
	:P391	Collect spillage.
	:P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
Supplemental Information	:EUH401	To avoid risks to human health and the environment comply with the instructions for use.
	:EUH208	Contains 1,2-benzisothiazol-3-one. May produce an allergic reaction.

Hazardous components which must be listed on the label:

2.3 Other hazards

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS No. EC No. Registration Number	Classification (REGULATION (EC) No. 1272/2008)	Concentration
paclobutrazol	76738-62-0	Acute Tox.4; H302 Acute Tox.4; H332 Eye Irrit.2; H319 Repr.2; H361d Aquatic Acute 1; H400 Aquatic Chronic 1; H410	0.4 % w/w
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9	Acute Tox.4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400	<0.05

Substances for which there are Community workplace exposure limits.

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

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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.
- 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.

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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

Components	Exposure limit(s)	Type of exposure limit	Source
Paclobutrazol	5 mg/m ³	8 h TWA	SYNGENTA

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 mist or vapours are 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.

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| 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 certified to an appropriate standard and have a minimum breakthrough time 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 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

Physical State	:	Liquid
Form	:	Suspension
Colour	:	Light green to dark green
Odour	:	Aromatic
Odour Threshold	:	No data available
pH	:	5 – 9 at 1 % w/v
Melting point/range	:	No data available
Boiling point/boiling range	:	100 °C
Flash point	:	>102 °C at 101.6 kPa Pensky-Marstens c.c.
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	:	1.02 g/cm ³
Solubility in other solvents	:	No data available
Partition Coefficient n-octanol/water	:	No data available
Autoignition temperature	:	>650 °C
Thermal decomposition	:	No data available
Viscosity, dynamic	:	25 - 162 mPa.s at 20°C

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	: 21 – 120 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	: 49.3 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	: This product is stable when used in normal conditions.
10.3 Possibility of hazardous reactions	: No hazardous reactions by normal handling and storage according to provisions.
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 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, > 5,000 mg/kg
Acute inhalational toxicity	: Acute toxicity estimate male and female rat, > 5 mg/l , 4 h. Derived from components.
Acute dermal toxicity	: LD50 male and female rat, > 5,000 mg/kg
Skin corrosion/irritation	: rabbit: Non-irritating
Serious eye damage/eye irritation	: rabbit: Practically non-irritating
Respiratory or skin sensitisation	: Buehler Test guinea pig: Not a skin sensitizer in animal tests.
Germ cell mutagenicity	
paclobutrazol	: Did not show mutagenic effects in animal experiments.
Carcinogenicity	
paclobutrazol	: Did not show carcinogenic effects in animal experiments.
Reproductive toxicity	
paclobutrazol	: Embryo/foetotoxic effects have been reported in rats at doses of : maternal toxicity.

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

- Toxicity to fish** : LC50 Cyprinus carpio (Carp), 14.9 mg/l , 96 h
Toxicity to aquatic invertebrates : EC50 Daphnia magna (Water flea), >100 mg/l , 48 h
Toxicity to aquatic plants : ErC50 Lemna gibba (duckweed), >100 mg/l , 7 d
 NOErC Lemna gibba (duckweed), 0.32 mg/l , 7 d

12.2 Persistence and degradability

Biodegradability

- paclobutrazol : Not readily biodegradable.
Stability in water
 paclobutrazol : Degradation half life: 167 – 1,378 d. Persistent in water
Stability in soil
 paclobutrazol : Degradation half life: 43 - 634 d. Persistent in soil

12.3 Bioaccumulative potential

- paclobutrazol : Does not bioaccumulate.

12.4 Mobility in soil

- paclobutrazol : Medium mobility in soil.

12.5 Results of PBT and vPvB assessment

- paclobutrazol : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
 This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

- 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 SUSTANCE,

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			LIQUID, N.O.S. (PACLOBUTRAZOL)
14.3	Transport hazard class(es)	:	9
14.4	Packing Group	:	III
Labels		:	9
14.5	Environmental hazards Tunnel restriction code	:	Environmentally hazardous E

Sea transport (IMDG)

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

Air transport (IATA-DGR)

14.1	UN Number	:	UN 3082
14.2	UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUSTANCE, LIQUID, N.O.S. (PACLOBUTRAZOL)
14.3	Transport hazard class(es)	:	9
14.4	Packing Group	:	III
Labels		:	9
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-Labeling

Hazard pictograms		
		
Hazard Statements	:H411	Toxic to aquatic life with long lasting effects.
Precautions Statements	:P273 :P391 :P501	Avoid release to the environment. Collect spillage. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
Supplemental Information	:EUH401 :EUH208	To avoid risks to human health and the environment comply with the instructions for use. Contains 1,2-benzisothiazol-3-one. May produce an allergic reaction.

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Hazardous components which must be listed on the label:

- paclobutrazol

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: OTHER INFORMATION

Further information

Approval number, MAPP 17095

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

Based upon SDS release dated 16.11.2015, version 14 with local amendment.

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

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H361d	Suspected of damaging the unborn child.
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 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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