TOPREX

Version 10 - This version replaces all previous versions.
Revision Date 02.02.2015

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

1.1 Product identifier

Product name : **TOPREX**

Design code : A14049A

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 1484 538444

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008

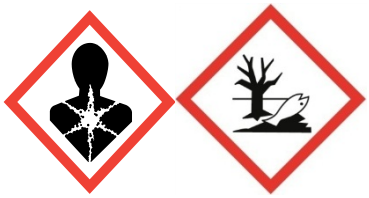
Reproductive toxicity	Category 2	H361d
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

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

Hazard pictograms



Signal Word	: Warning	
Hazard Statements	:H361d	Suspected of damaging the unborn child.
	:H410	Very toxic to aquatic life with long lasting effects.
Precautions Statements	:P102	Keep out of reach of children.
	:P201	Obtain special instructions before use.
	:P273	Avoid release to the environment.
	:P280	Wear protective gloves/protective clothing.
	:P308/P313	IF exposed or concerned: Get medical advice/attention.
	: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:

- paclobutrazol

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
difenoconazole	119446-68-3	Acute Tox.4; H302 Aquatic Acute1; H400 Aquatic Chronic1; H410	22.5 % w/w
paclobutrazol	76738-62-0	Acute Tox.4; H302 Eye Irrit.2; H319 Repr.2; H361d Acute Tox.4; H332 Aquatic Acute1; H400 Aquatic Chronic1; H410	11.3 % w/w
propane-1,2-diol	57-55-6 200-338-0	-	1 – 10 % w/w

poly(oxy-1,2-ethanediyl), alpha-sulfo-omeg a-[tris(1-phenylethyl)phenoxy]-, ammonium salt	119432-41-6 137672-70-9	Aquatic Chronic3; H412	1 – 5 % w/w

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 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.

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
Difenoconazole	8 mg/m³	8 h TWA	SYNGENTA
Paclobutrazol	5 mg/m³	8 h TWA	SYNGENTA
Propane-1,2-diol	10 mg/m³ (particulates) 150 ppm, 470 mg/m³ (Total (vapour & particulates))	8 h TWA 8 h TWA	UK HSE UK HSE

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.

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	:	Chemical resistant gloves are not usually required. Select gloves based on the physical job requirements.
Eye Protection	:	Eye protection is not usually required. Follow any site specific eye protection policies.
Skin and body protection	:	No special protective equipment required. Select skin and body protection based on the physical job requirements.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical State	:	Liquid
Form	:	Liquid
Colour	:	Off-white to beige
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	:	>100°C at 100.9 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	:	1.11 g/cm3 at 20°C
Solubility in other solvents	:	No data available
Partition Coefficient n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity, dynamic	:	36.2 – 263 mPa.s at 40°C
Viscosity, kinematic	:	49.1 – 317 mPa.s at 20°C
Explosive properties	:	Not explosive
Oxidizing properties	:	Not oxidising

9.2 Other information

: No data available

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, > 5.05 mg/l , 4 h
Acute dermal toxicity : LD50 male and female rat, > 2,000 mg/kg
Skin corrosion/irritation : rabbit: Non-irritating
Serious eye damage/eye irritation : rabbit: Non-irritating
Respiratory or skin sensitisation : Buehler Test guinea pig: Not a skin sensitizer in animal tests.
Germ cell mutagenicity
difenoconazole : Did not show mutagenic effects in animal experiments.
paclobutrazol : Did not show mutagenic effects in animal experiments.
Carcinogenicity
difenoconazole : Did not show carcinogenic effects in animal experiments.
paclobutrazol : Did not show carcinogenic effects in animal experiments.
Teratogenicity :
No information available.
difenoconazole
Reproductive toxicity
difenoconazole : Did not show reproductive toxicity effects in animal experiments.
paclobutrazol : Embryo/foetotoxic effects have been reported in rates at doses of maternal toxicity.
STOT – repeated exposure
difenoconazole : No adverse effect has been observed in chronic toxicity tests.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout), 7.1 mg/l , 96 h
Toxicity to aquatic invertebrates : EC50 Daphnia magna (Water flea), 4.8 mg/l , 48 h
Toxicity to aquatic plants : ErC50 Pseudokirchneriella subcapitata (green algae), 3.2 mg/l , 96 h
EbC50 Pseudokirchneriella subcapitata (green algae), 0.85 mg/l , 96 h
EbC50 Lemna gibba (duckweed), 0.1 mg/l , 7 d
ErC50 Lemna gibba (duckweed), 0.45 mg/l , 7 d
Derived from components.

12.2 Persistence and degradability

Biodegradability
paclobutrazol : Not readily biodegradable.
Stability in water
difenoconazole : Degradation half life: 1 d. Not persistent in water
paclobutrazol : Degradation half life: 167 – 1,378 d. Persistent in water
Stability in soil

difenoconazole	:	Degradation half life: 149 – 187 d. Not persistent in soil
paclobutrazol	:	Degradation half life: 43 - 634 d. Persistent in soil

12.3 Bioaccumulative potential

difenoconazole	:	High potential for bioaccumulate
paclobutrazol		Does not bioaccumulate.
poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-[tris(1-phenylethyl) phenoxyl]-ammonium salt		No data available

12.4 Mobility in soil

difenoconazole	:	Low mobility in soil.
paclobutrazol		Medium mobility in soil.
poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-[tris(1-phenylethyl) phenoxyl]-ammonium salt		No data available

12.5 Results of PBT and vPvB assessment

Difenoconazole, paclobutrazol,	:	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).
poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-[tris(1-phenylethyl) phenoxyl]-ammonium salt		No data available.

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, (DIFENOCONAZOLE AND PACLOBUTRAZOL)
14.3	**Transport hazard class(es)**	**:**	9
14.4	**Packing Group**	**;**	III
Labels		:	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, (DIFENOCONAZOLE AND 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 SUBSTANCE, (DIFENOCONAZOLE AND 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

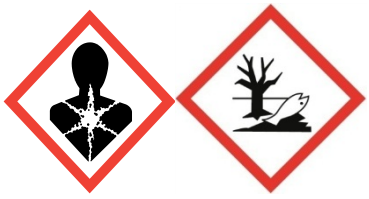
Not applicable

SECTION 15: REGULATORY INFORMATION

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

GHS-Labelling

Hazard pictograms



Signal Word	: Warning	
Hazard Statements	:H361d	Suspected of damaging the unborn child.
	:H410	Very toxic to aquatic life with long lasting effects.
Precautions Statements	:P102	Keep out of reach of children.
	:P201	Obtain special instructions before use.
	:P273	Avoid release to the environment.
	:P280	Wear protective gloves/protective clothing.
	:P308/P313	IF exposed or concerned: Get medical advice/attention.
	: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:
- 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 16456; PCS No. 05206.
Use plant protection products safely. Always read the label and product information before use.
Based upon SDS release dated 02.02.2015, version 10 with local amendment.

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

H302	Harmful if swallowed.
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.
H412	Harmful 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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