

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

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

PRODUCT INFORMATION

Product name : CULTAR
Design code : A8164F
Use : Plant growth regulator
Company : Syngenta Crop Protection AG
 Postfach
 CH-4002 Basel
 Switzerland
Telephone : +41 61 323 11 11
Telefax : +41 61 323 12 12
**Emergency tele-
phone** : +44 1484 538444
E-mail address : safetydatasheetcoordination@syngenta.com



2. HAZARDS IDENTIFICATION

Causes eye irritation.
 Suspected of damaging fertility or the unborn child.
 Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No. (REACH Regis- tration Number)	Symbol(s)	R-phrase(s)	Concentration
paclobutrazol	76738-62-0		Xn, N	R20/22 R36 R50/53 R63	22.9 % W/W
propane-1,2-diol	57-55-6	200-338-0			1 - 5 % W/W
naphthalenesul- fonic acid, sodium salt, polymer with formaldehyde	9008-63-3		Xi	R36/38	1 - 5 % 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.

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

4. 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.
- Medical advice** : There is no specific antidote available.
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray
- Extinguishing media which shall not be used for safety reasons** : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting** : 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.
- Special protective equipment for fire-fighters** : Wear full protective clothing and self-contained breathing apparatus.
- Further information** : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
- Methods for 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).
- Additional advice** : If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

HANDLING

- Advice on 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.

STORAGE

- Requirements for storage areas and containers** : 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.
- Other data** : Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
propane-1,2-diol	10 mg/m ³ (Particulates) 150 ppm, 470 mg/m ³ (Total (vapour & particulates))	8 h TWA 8 h TWA	UK HSE UK HSE
paclobutrazol	5 mg/m ³	8 h TWA	SYNGENTA

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 mists or vapors are generated, use local exhaust ventilation controls.

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

PERSONAL PROTECTIVE EQUIPMENT

- 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** : If eye contact is possible, use tight-fitting chemical safety goggles.
- Skin and body protection** : No special protective equipment required.
Select skin and body protection based on the physical job requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : liquid
Form : suspension
Colour : off-white to beige
Density : 1.09 g/cm³
Miscibility : Miscible

10. STABILITY AND REACTIVITY

- Hazardous decomposition products** : Combustion or thermal decomposition will evolve toxic and irritant vapors.
- Hazardous reactions** : None known.
Hazardous polymerisation does not occur.
Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity** : Acute toxicity estimate Rat, > 2,000 mg/kg
Derived from components.
GHS-Classification
None

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

- Acute inhalation toxicity** : LC50 male and female Rat, > 250 mg/m³, 4 h
Derived from components.
GHS-Classification
None
- Acute dermal toxicity** : LD50 Rat, > 2,000 mg/kg
Derived from components.
GHS-Classification
None
- Skin irritation** : Rabbit: Non-irritating
Derived from components.
GHS-Classification
None
- Eye irritation** : Rabbit: irritating
Derived from components.
GHS-Classification
Category 2B
- Sensitisation** : guinea pig: not sensitizing
Derived from components.
GHS-Classification
None

Long term toxicity

- paclobutrazol : Did not show carcinogenic or mutagenic effects in animal experiments.
Embryo/foetotoxic effects have been reported in rats at doses of maternal toxicity.

12. ECOLOGICAL INFORMATION**ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)****Biodegradability**

- paclobutrazol : Not readily biodegradable.

Stability in water

- paclobutrazol : Degradation half life: 167 - 1,378 d
Paclobutrazol is persistent in water.

Stability in soil

- paclobutrazol : Degradation half life : 43 - 634 d
Paclobutrazol is persistent in soil.

Mobility

- paclobutrazol : Paclobutrazol has medium mobility in soil.

Bioaccumulation

- paclobutrazol : Paclobutrazol bioaccumulates.

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

ECOTOXICITY EFFECTS

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout), > 538 mg/l , 96 h
GHS-Classification
None

Toxicity to aquatic invertebrates

paclobutrazol : EC50 *Daphnia magna* (Water flea), 35 mg/l , 48 h
GHS-Classification
Category 3

Toxicity to aquatic plants : EbC50 *Lemna gibba* (duckweed), 2.09 mg/l , 7 d
Derived from components.

: ErC50 *Lemna gibba* (duckweed), 7.22 mg/l , 7 d
Derived from components.
GHS-Classification
Category 2

13. DISPOSAL CONSIDERATIONS

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 to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

14. TRANSPORT INFORMATION**Land transport***ADR/RID:*

UN-Number: 3082

Class: 9

Labels: 9

Packaging group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(PACLOBUTRAZOL)

Environmentally hazardous: Environmentally hazardous

Sea transport*IMDG:*

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

UN-Number:	3082
Class:	9
Labels:	9
Packaging group:	III
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PACLOBUTRAZOL)
Marine pollutant :	Marine pollutant

Air transport

<i>IATA-DGR:</i>	
UN/ID No.:	UN 3082
Class:	9
Labels:	9
Packaging group:	III
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PACLOBUTRAZOL)

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- paclobutrazol

Symbol(s)	: N Xn	Dangerous for the environment Harmful
R-phrases(s)	: R36 R50/53 R63	Irritating to eyes. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child.
S-phrases(s)	: S 2 S13 S20/21 S35 S37/39 S57	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. This material and its container must be disposed of in a safe way. Wear suitable gloves and eye/face protection. Use appropriate container to avoid environmental contamination.
Note	: The mixture is classified as dangerous in accordance with Directive 1999/45/EC.	
Special labelling of certain mixtures	: To avoid risks to man and the environment, comply with the instructions for use.	

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

GHS-Labeling

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Pictogram



Signal word	:	Warning
Hazard statements	:	H320 Causes eye irritation. H361 Suspected of damaging fertility or the unborn child. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	:	P281 Use personal protective equipment as required. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P391 Collect spillage. P501 Dispose of contents/container to an approved waste disposal plant.
Remarks	:	Classified using all GHS hazard classes and categories. Where the GHS contains options, the most conservative option has been chosen. Regional or national implementations of GHS may not implement all hazard classes and categories.

Hazardous components which must be listed on the label:

- paclobutrazol

16. OTHER INFORMATION

Further information

Text of R-phrases mentioned in Section 3:

R20/22	Harmful by inhalation and if swallowed.
R36	Irritating to eyes.
R36/38	Irritating to eyes and skin.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.

CULTAR

Version 3

Revision Date 27.01.2010

Print Date 27.01.2010

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.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Product names are a trademark or registered trademark of a Syngenta Group Company.
