

**YUNTA QUATTRO FS373,4 4X5L BOT NBC**Version 1 / EU
1020000214511/8
Revision Date: 23.07.2009
Print Date: 24.06.2010**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name YUNTA QUATTRO FS373,4 4X5L BOT NBC
Product code (UVP) 79513038
Usage seed treatment
Company Bayer CropScience AG
Alfred-Nobel-Straße 50
40789 Monheim am Rhein
Germany

Telefax +49(0)2173-38-7394
Responsible Department Material and Transport Safety Management
+49(0)2173-38-3409/3189 (during business hours only)
Email: INFO.EHS@bayercropscience.com

Emergency telephone number +49(0)2133-51-4233 (Sicherheitszentrale Dormagen, Bayer AG)

2. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

Harmful if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

Flowable concentrate for seed treatment (FS)
Clothianidin 166,7 g/l + Imidacloprid 166,7 g/l + Prothioconazole 33,3 g/l + Tebuconazole 6,7 g/l

Hazardous components

Chemical Name	CAS-No. / EC-No.	Symbol(s)	R-phrases(s)	Concentration [%]
Clothianidin	210880-92-5	N	R50/53	13,66
Imidacloprid	138261-41-3 428-040-8	Xn, N	R22, R50/53	13,66
Prothioconazole	178928-70-6	N	R51/53	2,73
Tebuconazole	107534-96-3 4036402	Xn, N	R22, R51/53, R63	0,55
Glycerine	56-81-5 200-289-5			> 1,00

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

4. FIRST AID MEASURES**General advice**

Move out of dangerous area. Place and transport victim in stable position (lying sideways).



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Remove contaminated clothing immediately and dispose of safely.

Inhalation

Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

Notes to Physician

Treatment

Treat symptomatically.
In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray
Carbon dioxide (CO₂)
Foam
Sand

Specific hazards during fire fighting

In the event of fire the following may be released:
Hydrogen chloride (HCl)
Hydrogen cyanide (hydrocyanic acid)
Carbon monoxide (CO)
Sulphur oxides
Nitrogen oxides (NO_x)

Special protective equipment for fire-fighters

In the event of fire and/or explosion do not breathe fumes.
In the event of fire, wear self-contained breathing apparatus.

Further information

Contain the spread of the fire-fighting media.
Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid contact with spilled product or contaminated surfaces.
Use personal protective equipment.

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Do not allow to get into surface water, drains and ground water.

Methods for cleaning upSoak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Clean contaminated floors and objects thoroughly, observing environmental regulations.
Keep in suitable, closed containers for disposal.**Additional Advice**Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.**7. HANDLING AND STORAGE****Handling**

Advice on safe handling

Use only in area provided with appropriate exhaust ventilation.

Storage

Requirements for storage areas and containers

Store in original container.

Keep containers tightly closed in a dry, cool and well-ventilated place.

Store in a place accessible by authorized persons only.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Temperature tolerance	min.	max.
	-10 °C	40 °C

Suitable materials

HDPE (high density polyethylene)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Clothianidin	210880-92-5	2,8 mg/m ³		OES BCS*
Imidacloprid	138261-41-3	0,7 mg/m ³		OES BCS*
Prothioconazole	178928-70-6	1,4 mg/m ³		OES BCS*
Tebuconazole	107534-96-3	0,2 mg/m ³		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory Protection No personal respiratory protective equipment normally required.

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Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

Eye protection

Wear goggles conforming to EN166 (Field of Use 5 or equivalent).

Skin and body protection

Wear standard coverall and type 6 suit.
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

Hygiene measures

Avoid contact with skin, eyes and clothing.
Keep working clothes separately.
Wash hands immediately after work, if necessary take a shower.
Remove soiled clothing immediately and clean thoroughly before using again.
Garments that cannot be cleaned must be destroyed (burnt).

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form liquid, suspension
Colour red
Odour weak, characteristic

Safety data

pH 4,0 - 7,0 at 100 % (23 °C)
Flash point Not relevant; aqueous solution
Density approx. 1,22 g/cm³ at 20 °C
Water solubility dispersible

10. STABILITY AND REACTIVITY

Hazardous Reactions No hazardous reactions when stored and handled according to prescribed instructions.
Stable under recommended storage conditions.

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Acute Oral Toxicity	LD50 (rat) > 1.000 - < 2.000 mg/kg
Acute Inhalation Toxicity	LC50 (rat) > 2,44 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol. Highest attainable concentration.
Acute Dermal Toxicity	LD50 (rat) > 2.000 mg/kg
Skin Irritation	No skin irritation. (rabbit)
Eye Irritation	No eye irritation. (rabbit)
Sensitization	Non-sensitizing. (mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to Fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) > 104,2 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient clothianidin.
Toxicity to Fish	LC50 (<i>Oncorhynchus mykiss</i> (rainbow trout)) 211 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient imidacloprid.
Toxicity to Fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 1,83 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient prothioconazole.
Toxicity to Fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 4,4 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient tebuconazole.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) > 119 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient clothianidin.
Toxicity to daphnia	EC50 (<i>Chironomus riparius</i> (non-biting midge)) 0,00106 mg/l Exposure time: 28 d The value mentioned relates to the active ingredient clothianidin.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 1,3 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient prothioconazole.

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Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 2,79 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient tebuconazole.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 85 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient imidacloprid.
Toxicity to daphnia	LC50 (<i>Chironomus riparius</i> (non-biting midge)) 0,0552 mg/l Exposure time: 24 h The value mentioned relates to the active ingredient imidacloprid.
Toxicity to algae	IC50 (<i>Pseudokirchneriella subcapitata</i>) > 120 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient clothianidin.
Toxicity to algae	IC50 (<i>Desmodesmus subspicatus</i>) > 10 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient imidacloprid.
Toxicity to algae	IC50 (<i>Pseudokirchneriella subcapitata</i>) 2,18 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient prothioconazole.
Toxicity to algae	IC50 (<i>Pseudokirchneriella subcapitata</i>) 3,8 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient tebuconazole.

13. DISPOSAL CONSIDERATIONS**Product**

In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION**ADR/RID/ADNR**

UN-Number	3082
Labels	9
Packaging group	III
Hazard no.	90
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CLOTHIANIDIN, IMIDACLOPRID SOLUTION)
Tunnel Code	E

This classification is in principle not valid for carriage by tank vessel on inland waterways.
Please refer to the manufacturer for further information.

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UN-Number	3082
Labels	9
Packaging group	III
EmS	F-A , S-F
Marine pollutant	Marine pollutant
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CLOTHIANIDIN, IMIDACLOPRID SOLUTION)

IATA

UN-Number	3082
Labels	9
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CLOTHIANIDIN, IMIDACLOPRID SOLUTION)

15. REGULATORY INFORMATION**Classification and labelling in accordance with the EC Directive on dangerous preparations 1999/45/EC as amended.**

Classification:

Hazard warning labelling compulsory

Hazardous components which must be listed on the label:

- Clothianidin
- Imidacloprid
- Prothioconazole
- Tebuconazole

Symbol(s)

Xn	Harmful
N	Dangerous for the environment

R-phrases(s)

R22	Harmful if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s)

S35	This material and its container must be disposed of in a safe way.
S57	Use appropriate container to avoid environmental contamination.

Exceptional labelling

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

Further information

WHO-classification: II (Moderately hazardous)

16. OTHER INFORMATION**Further information**

Text of R-phrases mentioned in Section 3

R22	Harmful if swallowed.
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| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R63 | Possible risk of harm to the unborn child. |

The information given in this Data Sheet has been included in accordance with the guidelines established by Regulation (EC) 1907/2006. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

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