

ACTARA

Version 9

Revision Date 14.05.2007

Print Date 03.08.2007

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

PRODUCT INFORMATION

Product name : ACTARA
Design Code : A9584C
Use : Insecticide
Company : Syngenta Crop Protection AG
 Postfach
 CH-4002 Basel
 Switzerland
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Dangerous for the environment

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
thiamethoxam	153719-23-4		Xn, N	R22 R50/53	25 % W/W

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

3. HAZARDS IDENTIFICATION

May form flammable dust-air mixture.

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

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 : Remove 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.
- 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 must 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.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Refer to protective measures listed in sections 7 and 8.
Avoid dust formation.
- Environmental precautions** : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up** : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).
Do not create a powder cloud by using a brush or compressed air.
Clean contaminated surface thoroughly.

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Additional advice : If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE**HANDLING**

Advice on safe handling : This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents. 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 : 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.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	Exposure limit(s)	Value type	Source
thiamethoxam	3 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 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.

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** : 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form** : granules
- Colour** : beige to brown
- Odour** : musty
- pH** : 7 - 11 at 1 % w/v
- Flammability (solid, gas)** : not highly flammable

Dust explosion class : Forms flammable dust clouds.

Minimum ignition energy : 0.03 - 0.1 J

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Oxidizing properties	: not oxidizing
Explosive properties	: Not explosive
Bulk density	: 0.42 - 0.52 g/cm ³
Miscibility	: Miscible
Solubility in other solvents	: not soluble
Surface tension	: 46.0 - 47.6 mN/m at 20 °C

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Combustion or thermal decomposition will evolve toxic and irritant vapors.

Hazardous reactions : Stable at normal ambient temperature and pressure.
Hazardous polymerization does not occur.
At elevated temperatures it will undergo rapid, gas evolving thermal decomposition.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 Rat, > 5,000 mg/kg

Acute inhalation toxicity : LC50 Rat, > 5,290 mg/m³, 4 h

Acute dermal toxicity : LD50 Rat, > 5,000 mg/kg

Skin irritation : Rabbit: Non-Irritating

Eye irritation : Rabbit: Non-Irritating

Sensitization : guinea pig: Not a skin sensitizer in animal tests.

Long term toxicity

Liver tumors noted in mice that are not relevant to humans.

Did not show reproductive toxicity effects in animal experiments.

Animal testing did not show any effects on foetal development.

Did not show neurotoxicity in animal experiments.

This information refers to Thiamethoxam

No adverse effects in humans are expected at levels below the occupational exposure limit and when the product is handled and used according to the label.

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12. ECOLOGICAL INFORMATION**ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)****Bioaccumulation** : Thiamethoxam has low potential for bioaccumulation**Stability in water** : Thiamethoxam is not persistent in water.**Stability in soil** : Thiamethoxam is not persistent in soil.**Mobility** : Thiamethoxam has medium mobility in soil.**ECOTOXICITY EFFECTS****Toxicity to fish** : LC50 *Oncorhynchus mykiss* (rainbow trout), > 100 mg/l , 96 h**Toxicity to aquatic invertebrates** : EC50 *Daphnia magna* (Water flea), > 100 mg/l , 48 h: EC50 *Cloeon* sp., 56 µg/l , 48 h

Derived from active ingredient(s)

Toxicity to algae : ErC50 *Selenastrum capricornutum* (green algae), > 100 mg/l , 72 h

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 for local recycling or waste disposal.
Do not re-use empty containers.

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

Regulation: Not dangerous goods

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Sea transport*IMDG:*

Regulation: Not dangerous goods

Air transport*IATA-DGR*

Regulation: Not dangerous goods

Further information for transport: Maximum safe package size: 400 kg**15. REGULATORY INFORMATION****Labelling according to EC Directives**

Symbol(s)	: N	Dangerous for the environment
R-phrase(s)	: R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S 2 S13 S20/21 S35 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. Use appropriate container to avoid environmental contamination.
Special labelling of certain preparations	: To avoid risks to man and the environment, comply with the instructions for use.	
Note	: The preparation is classified as dangerous in accordance with Directive 1999/45/EC.	

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16. OTHER INFORMATION**Further information**

Text of R phrases mentioned in Section 2:

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

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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