

Material Safety Data Sheet

ACTELIC 50 EC

Version 7
Revision Date 11.04.2006

Print Date 11.04.2006

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

PRODUCT INFORMATION

Product name : ACTELIC 50 EC
Design Code : A5832B
Use : insecticide
Company : Syngenta Crop Protection AG
Postfach
CH-4002 Basel
Switzerland
Telephone : +41 61 323 11 11
Telefax : +41 61 323 12 12
Emergency telephone number : +44 1484 538444



2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
pirimiphos-methyl	29232-93-7	249-528-5	Xn, N	R22 R50/53	48.5 % W/W
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-w-hydroxy-	9016-45-9		Xi	R41 R52/53	0 - 5 % W/W
solvent naphtha (petroleum), light arom.	64742-95-6	265-199-0	Xn, N	R10 R37 R51/53 R65 R66 R67	40 - 50 % W/W
benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	247-557-8	Xi	R38 R41	0 - 5 % W/W

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

ACTELIC 50 EC

Version 7

Revision Date 11.04.2006

Print Date 11.04.2006

3. Hazards identification

This product contains an anticholinesterase compound. Do not use if under medical advice not to work with such compounds.

Flammable.

Harmful if swallowed.

Irritating to eyes and respiratory system.

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

Harmful: may cause lung damage if swallowed.

Vapors may cause drowsiness and dizziness.

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.
Keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
Call a physician or Poison Control Centre immediately.
- Inhalation** : Remove to fresh air.
Keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
Call a physician or Poison Control Centre immediately.
- Skin contact** : Take off contaminated clothing and shoes immediately.
Wash off immediately with soap and 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.
- Symptoms** : The symptoms are of cholinesterase inhibition
- Medical advice** : Call Syngenta at the emergency number shown in this document, a poison control center or doctor immediately for treatment advice.
Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube)
Administer atropine sulfate, either by intramuscular or intravenously, dependant on severity of poisoning
Specific antidotes are oximes (e.g. Pralidoxime) or Toxogonin

ACTELIC 50 EC

Version 7

Revision Date 11.04.2006

Print Date 11.04.2006

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
- 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.
Flash back possible over considerable distance.
- Special protective equipment for fire-fighters** : In the event of fire, wear 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.
Keep people away from and upwind of spill/leak.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Remove all sources of ignition.
Pay attention to flashback.
- 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 and collect spillage 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.

ACTELIC 50 EC

Version 7

Revision Date 11.04.2006

Print Date 11.04.2006

7. HANDLING AND STORAGE

HANDLING

Advice on safe handling : Avoid contact with skin and eyes.
When using, do not eat, drink or smoke.
Take precautionary measures against static discharges.
Use only in an area containing flame proof equipment.
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.
Keep away from heat and sources of ignition.
Keep away from combustible material.
Keep in an area equipped with sprinklers.
No smoking.

Other data : Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

ACTELIC 50 EC

Version 7

Revision Date 11.04.2006

Print Date 11.04.2006

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	Exposure limit(s)	Value type	Source
pirimiphos-methyl	3 mg/m ³	8 h TWA	SYNGENTA
solvent naphtha (petroleum), light arom.	100 mg/m ³	8 h TWA	SUPPLIER

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.

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** : A combination gas, vapor and particulate respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.
- 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** : 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:
dust impervious protective suit

ACTELIC 50 EC

Version 7

Revision Date 11.04.2006

Print Date 11.04.2006

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid clear
Colour	: light brown
Flash point	: 38 °C
Density	: 1.03 g/cm ³ at 20 °C
Water solubility	: Miscible

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 male Rat, 1,522 mg/kg : LD50 female Rat, 1,732 mg/kg
Acute dermal toxicity	: LD50 Rat, > 2,000 mg/kg
Skin irritation	: Rabbit: slight
Eye irritation	: Rabbit: Moderately Irritating
Sensitization	: guinea pig not sensitizing
Long term toxicity	Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)

Bioaccumulation	: Pirimiphos-methyl has high potential for bioaccumulation
------------------------	--

ACTELIC 50 EC

Version 7

Revision Date 11.04.2006

Print Date 11.04.2006

- Stability in water** : Pirimiphos-methyl is not persistent in water
- Stability in soil** : Pirimiphos-methyl is not persistent in soil.
- Mobility** : Pirimiphos-methyl has low mobility in soil.

ECOTOXICITY EFFECTS

- Toxicity to fish** : LC50 Oncorhynchus mykiss (rainbow trout), ca. 1.3 mg/l , 96 h
- Toxicity to aquatic invertebrates** : EC50 Daphnia magna (Water flea), 0.0005 mg/l , 48 h
- Toxicity to algae** : ERC50 Algae, 2.4 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:

UN-No: 1993
Class: 3
Danger Label Number : 3
Packaging group III
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(SUBSTITUTED BENZENOID HYDROCARBONS AND PIRIMIPHOS-METHYL)

ACTELIC 50 EC

Version 7

Revision Date 11.04.2006

Print Date 11.04.2006

Sea transport

IMDG:

UN-No: 1993
Class: 3
Danger Label Number : 3
Packaging group: III
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(SUBSTITUTED BENZENOID HYDROCARBONS AND PIRIMIPHOS-METHYL)

Marine pollutant : Marine pollutant

Air transport

IATA-DGR

UN-No: 1993
Class: 3
Danger Label Number : 3
Packaging group: III
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(SUBSTITUTED BENZENOID HYDROCARBONS AND PIRIMIPHOS-METHYL)

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- pirimiphos-methyl
- solvent naphtha (petroleum), light arom.

Symbol(s)	: Xn N	Harmful Dangerous for the environment
R-phrases(s)	: R10 R22 R36/37 R50/53 R65 R67	Flammable. Harmful if swallowed. Irritating to eyes and respiratory system. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful: may cause lung damage if swallowed. Vapors may cause drowsiness and dizziness.

ACTELIC 50 EC

Version 7

Revision Date 11.04.2006

Print Date 11.04.2006

S-phrase(s)	: S 2	Keep out of the reach of children.
	S13	Keep away from food, drink and animal feedingstuffs.
	S20/21	When using do not eat, drink or smoke.
	S35	This material and its container must be disposed of in a safe way.
	S57	Use appropriate container to avoid environmental contamination.
	S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
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.	

16. OTHER INFORMATION

Further information

Text of R phrases mentioned in Section 2:

R10	Flammable.
R22	Harmful if swallowed.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
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.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapors may cause drowsiness and dizziness.

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.

A vertical bar in the left margin indicates an amendment from the previous version.

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