

The Chemical Company

**MATERIAL SAFETY DATA SHEET**PRODUCT(S): **TENOPA**

DATE: 10/04/2008

VERSION: 5

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**1. SUBSTANCE/PREPARATION AND COMPANY NAME**

Product Name: TENOPA

HSE Number: 6206

Use: Non-crop insecticide for professional use

\ Company: BASF Agro B.V.  
\ Moosacherstr. 2  
\ 69  
\ 8820 Waedenswil/Au  
\ SwitzerlandEmergency  
Information: 0049 1802 273112 (24 Hours freephone)**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Formulation: A suspension concentrate formulation containing 2.97% w/w (30 g/l) alphacypermethrin + 2.97% w/w (30 g/l) flufenoxuron

<u>Hazardous ingredients</u>	<u>CAS No.</u>	<u>g/l or % w/w</u>	<u>Symbol</u>	<u>R Phrases</u>
\ Alphacypermethrin	67375-30-8	30 (2.97% w/w)	T (Toxic) N (Dangerous for the environment)	R20, R25, R37/38, R48/22, R50/53
Flufenoxuron	101463-69-8	30 (2.97% w/w)	N (Dangerous for the environment)	R50/53
Propylene glycol (Propane-1,2-diol)	57-55-6	12.3% (w/w)	-	-
Tributyl phenol polyglycol ether	9046-09-7	0.2 % (w/w)	Xn (Harmful) N (Dangerous for the environment)	R22, R41, R51/53.

**3. HAZARDS IDENTIFICATION**DANGEROUS FOR THE ENVIRONMENT  
R51/53: TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG TERM ADVERSE  
EFFECTS IN THE AQUATIC ENVIRONMENT.

MAY CAUSE PARESTHESIA.

Format based on 91/155/EEC

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**4. FIRST AID MEASURES**

- General advice: If a person thinks that they have been exposed to this product and feels unwell, call a doctor or take them to a hospital. Remove all contaminated clothing. Keep them at REST away from source of contamination. DO NOT ALLOW smoking or eating. First aider should avoid becoming contaminated and wear protective clothing if necessary.
- Eye contact: Immediately irrigate affected eyes for at least 15 minutes under flowing water, with eyelids open.
- Skin contact: Immediately remove contaminated clothing and footwear and flush skin with plenty of water. Wash affected area thoroughly with soap and water as soon as possible.
- Ingestion: DO NOT INDUCE VOMITING. Wash out mouth with clean water. Seek medical attention immediately.
- Inhalation: Keep person calm, remove to fresh air.
- Unconsciousness: If danger of loss of consciousness, place person in recovery position. Apply artificial ventilation if necessary, but care must be taken to avoid contamination of the first aider.

**GUIDE TO PHYSICIAN - general advice**

- Active ingredient group: Alphacypermethrin – pyrethroid  
Flufenoxuron – benzoylurea
- Symptoms of accidental overexposure: Pyrethroids may cause abnormal numbness or tingling to the skin (paresthesia).  
Severe exposure may cause acute neurotoxicity including seizures, and other signs and symptoms such as muscle fasciculations and those of pulmonary edema.

Any unusual symptoms which occur after exposure (by any mode of entry) should be recorded and reported to BASF at Cheadle.

- (i) Treatment should be symptomatic and supportive based on judgement of physician.
- (ii) If the product has been swallowed, gastric lavage with proper laryngeal control may be necessary. For ingestion of small quantities activated charcoal as an absorbent in a dosage of 30 grams in 100ml of water may be considered.
- (iii) Maintenance of ventilation and oxygen therapy to be used as required.
- (iv) If symptomatic therapy is indicated for control of restlessness, anxiety or convulsions, then Diazepam is recommended as the drug of choice.

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**5. FIRE FIGHTING MEASURES**

Suitable extinguishing media:	Water spray, water fog, foam, dry extinguishing media or carbon dioxide.
Possible harmful fumes in a fire:	Carbon monoxide, hydrogen chloride, hydrogen cyanide, nitrogen oxides, organochloric compounds, sulphur oxides can be released. Avoid breathing smoke and fumes.
Protective equipment:	Use self-contained breathing apparatus and protective clothing.
Further information:	Call the Fire Brigade at once to deal with all fires involving pesticides unless the fire is small and immediately controllable. Spray unopened containers with a mist spray to keep cool. If without risk, remove intact containers from exposure to fire. Contain fire-fighting water, bunding if necessary with sand or earth. Do not allow contamination of public drains or surface or ground waters. Dispose of fire debris and contaminated water as advised in the DEFRA publication "Code of practice for using plant protection products."

**6. ACCIDENTAL RELEASE MEASURES**

If spilled:	Wear prescribed protective clothing. Clear spillage immediately. Contain spillage and absorb onto earth, sand or suitable absorbent material. Collect contaminated material and place in a marked container for disposal. Thoroughly wash area of spillage. Dispose of contaminated materials as advised in the DEFRA publication "Code of practice for using plant protection products."
	Wash thoroughly immediately after handling spillages, or at once if contaminated.
Personal protective equipment:	See Section 8.
Environmental precautions:	Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environment Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland), or the Environment and Heritage Service (Northern Ireland) if it enters surface or ground waters. Keep people and animals away.

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**7. HANDLING AND STORAGE**

Handling:	Do not breathe vapour/mist. Avoid contact with skin and eyes. When using do not eat, drink or smoke.
Protection against fire and explosion:	Product is non-combustible. No special precautions necessary.
Storage:	Store separately from food, drink and animal feed. Keep away from sources of ignition and protect from exposure to fire. Keep dry and frostproof in a suitable pesticide store. Keep away from heat and direct sunlight. Protect from temperatures below -10°C and above 40°C.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

## (i) PRECAUTIONS (from product label)

Engineering control of operator exposure must be used where reasonably practicable in addition to the following items of personal protective equipment. Wear suitable protective clothing, gloves and eye/face protection. AVOID EXCESSIVE CONTAMINATION OF COVERALLS AND LAUNDRY REGULARLY. DO NOT BREATHE SPRAY. Otherwise wear respiratory protective equipment and eye protection (See HSE Guidance Booklet HS (G) 53: The Selection, Use and Maintenance of Respiratory Protective Equipment – A Practical Guide”). However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection. COVER FOOD, FOOD PREPARING EQUIPMENT AND EATING UTENSILS before application. COVER WATER STORAGE TANKS before application. DO NOT APPLY TO SURFACES on which food or feed is stored, prepared or eaten. DO NOT APPLY TO CLOTHING OR BEDDING. UNPROTECTED PERSONS AND ANIMALS SHOULD BE KEPT AWAY FROM TREATED AREAS UNTIL SURFACES ARE DRY. EXTREMELY DANGEROUS TO FISH AND OTHER AQUATIC LIFE. Do not contaminate ground, waterbodies or watercourses with chemicals or used container.

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REMOVE OR COVER FISH TANKS AND BOWLS before application.  
Do not empty into drains.  
DO NOT USE NEAR DRAINS, PREVENT ANY SURFACE RUN-OFF FROM ENTERING DRAINS.  
DO NOT APPLY DIRECTLY TO ANIMALS.  
HAZARDOUS TO BEES.  
THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way.  
WHEN USING DO NOT EAT, DRINK OR SMOKE.  
AVOID CONTACT WITH SKIN.  
WASH ANY CONTAMINATION from skin or eyes immediately.  
WASH HANDS AND EXPOSED SKIN before meals and after use.  
DO NOT HANDLE TREATED FABRICS UNTIL DRY AND AIR THOROUGHLY BEFORE USE.  
Keep out of the reach of children.  
KEEP IN A SAFE PLACE.  
Keep away from food, drink and animal feedingstuffs.  
Use appropriate containment to avoid environmental contamination.

**(ii) PERSONAL PROTECTIVE EQUIPMENT**

In tests with a range of pesticide products, protective gloves made of nitrile rubber at least 0.5mm thick and 300mm long have been found to be the most suitable. Gloves made of viton, butyl rubber, neoprene and PVC can also offer good protection. Gloves must protect the whole hand and wrist and should be thoroughly washed after each operation.

Face shields should conform to BS EN 166. Respiratory equipment should conform to BS EN 149 filter type 'P2'.

The wearing of other personal protective equipment may be required to supplement the items listed above. These are described in the DEFRA publication "Code of practice for using plant protection products". Decontaminate all personal protective equipment after use. When this is not possible dispose of as hazardous waste.

**(iii) OCCUPATIONAL EXPOSURE LIMITS (OESs)**

<u>Hazardous ingredients</u>	<u>Long term exposure limit (8 hour TWA reference period)</u>
Propylene glycol (Propane-1,2-diol)	
Vapour & particulates (total)	150 ppm / 474 mg.m <sup>-3</sup>
Particulates	10 mg.m <sup>-3</sup>

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form:	Flowable liquid
Colour:	White
Flash point:	Non-flammable
Density:	~1.03 g/cm <sup>3</sup> @ 20°C
Solubility in water:	Disperses in water
pH:	6–8 (20°C), undiluted
Viscosity (dynamic):	80–120 mPa.s (20°C, 100 1/s)

**10. STABILITY AND REACTIVITY**

Hazardous reactions:	None provided product is correctly handled.
Substances to avoid:	Strong alkalis. Corrosive to mild steel, tin.
Hazardous decomposition products:	None if stored and handled correctly.

**11. TOXICOLOGICAL INFORMATION**

Acute toxicity:			
Ingestion:	Low toxicity	LD <sub>50</sub> oral (rat):	4296 mg/kg
Skin contact:	Non irritant	LD <sub>50</sub> dermal: (rat)	> 2000 mg/kg
Inhalation:	Unlikely to cause a problem	LD <sub>50</sub> inhalation (rat) 4hr:	>2.37 mg/l
Eye contact:	Non irritant		
Sensitising potential:	No sensitising effect		

**12. ECOLOGICAL INFORMATION**

Information for the active substance alpha-cypermethrin:

\ Fish ( <i>O. mykiss</i> ) LC <sub>50</sub> 96h:	2.8 µg/l
Daphnia magna LC <sub>50</sub> (48h):	0.0003 mg/l
Algae ( <i>P. Subcapitata</i> ) EC <sub>50</sub> (96 h):	>0.1 mg/l

Information for the active substance flufenoxuron:

Fish ( <i>O. mykiss</i> ) LC50 96h:	>0.0049 mg/l
Daphnia magna EC50, 48h:	0.00004 mg/l
Algae ( <i>S. capricornutum</i> ) EC50	>0.004 mg/l

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**13. DISPOSAL CONSIDERATIONS**

- Leaking containers: Damaged or leaking containers must be dealt with as soon as noticed by sealing them in impermeable containers.
- Disposal of used containers: Follow the directions given in the DEFRA publication "Code of practice for using plant protection products".
- Disposal of diluted pesticide: Advice for the disposal or re-use of diluted pesticide is given in the DEFRA publication "code of practice for using plant protection products".

**14. TRANSPORT INFORMATION**

UN Number : 3082  
Packing Group : III

**ROAD/RAIL**

ADR/RID Class : 9  
Description of goods : Environmentally hazardous substance, liquid, N.O.S. (contains alpha-cypermethrin 3%, flufenoxuron 3%).

**SEA**

IMDG Class : 9  
Marine pollutant: Yes  
Description of goods : Environmentally hazardous substance, liquid, N.O.S. (contains alpha-cypermethrin 3%, flufenoxuron 3%).

**AIR**

ICAO/IATA Class : 9  
Description of goods : Environmentally hazardous substance, liquid, N.O.S. (contains alpha-cypermethrin 3%, flufenoxuron 3%).

This product is subject to The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004 and their amendments.

**15. REGULATORY INFORMATION**

This product is approved under the "Control of Pesticides Regulations 1986"  
This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) (Amendment) Regulations 2005 (CHIP 3.1).

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This product may be subject to the Control of Major Accident Hazards Regulations (COMAH) if certain threshold quantities are exceeded.

Hazard classification(s) See Section 3

R-phrases See Section 3

S-phrases(s)

S2	Keep out of the reach of children
S13	Keep away from food, drink and animal feeding stuffs
S20/21	When using do not eat, drink or smoke
S23	Do not breathe spray
S24	Avoid contact with skin
S29	Do not empty into drains
S35	This material and it's container must be disposed of in a safe way
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S57	Use appropriate containment to avoid environmental contamination

The Control of Substances Hazardous to Health Regulations (COSHH) may apply to the use of this product at work.

**16. OTHER INFORMATION**

For further medical advice Doctors should contact the National Poisons Information Service.

In an emergency further information can be obtained from the National Chemical Emergency Centre 01865 407333 (24 hours).

N Dangerous for the environment

R51/53 Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.

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TENOPA (V5)

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