

## MATCH 050 EC

Version 4

Revision Date 12.04.2005

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

#### PRODUCT INFORMATION

**Product name** : MATCH 050 EC  
**Design Code** : A7814K  
**Use** : Insecticide  
**Company** : Syngenta Crop Protection AG  
 Postfach  
 CH-4002 Basel  
 Switzerland  
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**Telefax** : +41 61 323 12 12  
**Emergency telephone number** : +44 1484 538444



Harmful



Dangerous for the environment

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
lufenuron	103055-07-8		N, Xi	R43 R50/53	5 % W/W
cyclohexanone	108-94-1	203-631-1	Xn	R10 R20	20 - 30 % W/W
solvent naphtha (petroleum), heavy arom.	64742-94-5	265-198-5	N, Xn	R51/53 R65 R66 R67	60 - 80 % W/W
benzenesulfonic acid, tetrapropylene-, calcium salt	11117-11-6	234-360-7	Xi	R36/38	0 - 5 % W/W
1-propanol, 2-methyl-	78-83-1	201-148-0	Xi	R10 R37/38 R41 R67	0 - 5 % W/W

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

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**3. Hazards identification**

Flammable.  
Irritating to skin.  
Risk of serious damage to eyes.  
May cause sensitization by skin contact.  
Harmful: may cause lung damage if swallowed.  
Vapours may cause drowsiness and dizziness.  
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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**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 to fresh air.  
If breathing is irregular or stopped, administer artificial respiration.  
Keep patient warm and at rest.  
Call a physician or Poison Control Center 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: contains petroleum distillates and/or aromatic solvents.
- Medical advice** : There is no specific antidote available. Treat symptomatically.  
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

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**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** : As the product contains combustible organic components, fire

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- fire fighting** 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.

**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 feed.  
Keep away from heat and sources of ignition.  
Keep away from combustible material.

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Keep in an area equipped with sprinklers.  
No smoking.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Components with workplace control parameters

Components	Exposure limit(s)	Value type	Source
lufenuron	5 mg/m <sup>3</sup>	8 h TWA	SYNGENTA
cyclohexanone	100 mg/m <sup>3</sup> 200 mg/m <sup>3</sup> 80 mg/m <sup>3</sup> 100 mg/m <sup>3</sup> 700 ppm 10 ppm 20 ppm	8 h TWA 15 min STEL 8 h TWA 8 h TWA IDLH 8 h TWA 15 min STEL	SUVA SUVA DFG ACGIH NIOSH UK HSE
solvent naphtha (petroleum), heavy arom.	100 mg/m <sup>3</sup>	8 h TWA	SUPPLIER
2-methylpropan-1-ol	1,600 ppm 50 ppm 150 mg/m <sup>3</sup> 100 ppm 300 mg/m <sup>3</sup> 50 ppm 152 mg/m <sup>3</sup> 100 ppm 300 mg/m <sup>3</sup>	15 min STEL  8 h TWA	NIOSH SUVA SUVA ACGIH DFG

#### 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

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any circumstances where air-purifying respirators may not provide adequate protection.

- Hand protection** : Chemical resistant gloves should be used.  
Gloves should be certified to an appropriate standard.  
Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure.  
The breakthrough time of gloves varies according to the thickness, material and manufacturer.  
Gloves should be changed when breakthrough is suspected.  
Suitable material  
nitrile rubber
- Eye protection** : If eye contact is possible, use tight-fitting chemical safety goggles and a face shield.
- 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:  
impervious protective suit

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

- Form** : liquid
- Colour** : light yellow to brownish
- pH** : 3 - 7 at 1 % w/v
- Flash point** : 51 °C at 763 mmHg
- Density** : 0.92 - 0.96 g/cm<sup>3</sup> at 20 °C
- Viscosity, dynamic** : 2.6 mPa.s at 20 °C  
: 1.8 mPa.s at 40 °C
- Surface tension** : 32.4 mN/m at 20 °C

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**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.

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**11. TOXICOLOGICAL INFORMATION**

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<b>Acute oral toxicity</b>	:	LD50 Rat, > 3,000 mg/kg
<b>Acute inhalation toxicity</b>	:	LC50 Rat, > 5.3 mg/l, 4 h
<b>Acute dermal toxicity</b>	:	LD50 Rat, > 4,000 mg/kg
<b>Skin irritation</b>	:	Rabbit: Irritant
<b>Eye irritation</b>	:	Rabbit: eye damage assessment according to 2001/59/EC
<b>Sensitization</b>	:	Guinea Pig sensitizing
<b>Long term toxicity</b>	:	Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

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**12. ECOLOGICAL INFORMATION****ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)****Bioaccumulation** : Lufenuron does not bioaccumulate.**Mobility** : Lufenuron is immobile in soil.**ECOTOXICITY EFFECTS****Toxicity to fish** : LC50 *Oncorhynchus mykiss* (Rainbow trout), 18 mg/l , 96 h  
Static conditions: LC50 *Lepomis macrochirus* (poisson lune), 20 mg/l , 96 h  
Derived from study results with similar preparation.**Toxicity to aquatic invertebrates** : EC50 *Daphnia magna* (water flea), 0.0072 mg/l , 48 h

Derived from study results with similar preparation.

**Toxicity to algae** : EBC50 *Selenastrum capricornutum* (green algae), > 30 mg/l ,  
72 h

Derived from study results with similar preparation.

: EBC50 *Selenastrum capricornutum* (green algae), 2.63 mg/l ,  
72 h

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Derived from study results with similar preparation.

**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: 1224  
Class: 3  
Danger Label Number : 3  
Packaging group III  
Proper shipping name : KETONES, LIQUID, N.O.S.  
( ALKYL (C3-C5) BENZENES AND CYCLOHEXANONE AND LUFENURON )

**Sea transport***IMDG:*

UN-No: 1224  
Class: 3  
Danger Label Number : 3  
Packaging group: III  
Proper shipping name : KETONES, LIQUID, N.O.S.  
( ALKYL (C3-C5) BENZENES AND CYCLOHEXANONE AND LUFENURON )

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### Air transport

#### IATA-DGR

UN-No: 1224  
 Class: 3  
 Danger Label Number : 3  
 Packaging group: III  
 Proper shipping name : KETONES, LIQUID, N.O.S.  
 ( ALKYL (C3-C5) BENZENES AND CYCLOHEXANONE AND LUFENURON )

## 15. REGULATORY INFORMATION

### Labelling according to EC Directives

Hazardous components which must be listed on the label:

- lufenuron
- solvent naphtha (petroleum), heavy arom.

<b>Symbol(s)</b>	: Xn N	Harmful Dangerous for the environment
<b>R-phrase(s)</b>	: R10 R38 R41 R43 R50/53  R65  R67	Flammable. Irritating to skin. Risk of serious damage to eyes. May cause sensitization by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  Harmful: may cause lung damage if swallowed.  Vapours may cause drowsiness and dizziness.
<b>S-phrase(s)</b>	: S 2 S13  S20/21 S26  S35  S36/37/39  S57  S62	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.  When using do not eat, drink or smoke. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  This material and its container must be disposed of in a safe way. Wear suitable protective clothing, gloves and eye/face protection. Use appropriate container to avoid environmental contamination. If swallowed, do not induce vomiting: seek medical advice immediately and show this

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container or label.

**Exceptional labelling of special 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:

<b>R10</b>	Flammable.
<b>R20</b>	Harmful by inhalation.
<b>R36/38</b>	Irritating to eyes and skin.
<b>R37/38</b>	Irritating to respiratory system and skin.
<b>R41</b>	Risk of serious damage to eyes.
<b>R43</b>	May cause sensitization by skin contact.
<b>R50/53</b>	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>R51/53</b>	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>R65</b>	Harmful: may cause lung damage if swallowed.
<b>R66</b>	Repeated exposure may cause skin dryness or cracking.
<b>R67</b>	Vapours may cause drowsiness and dizziness.

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