

TRIGARD 100 SL

Version 8

Revision Date 13.02.2006

Print Date 13.02.2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**PRODUCT INFORMATION**

Product name : TRIGARD 100 SL

Design Code : A6963C

Use : insecticide

Company : Syngenta Crop Protection AG
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CH-4002 Basel
Switzerland

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2. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous components**

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
hydrochloric acid	7647-01-0	231-595-7	C	R34 R37	0.5 % W/W
cyromazine	66215-27-8	266-257-8			8.9 % W/W

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

3. Hazards identification

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

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
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** : 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.
- 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.

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7. HANDLING AND STORAGE

HANDLING

Advice on safe handling : No special technical protective measures required.
No special handling advice required.
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 : No special storage conditions required.
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.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	Exposure limit(s)	Value type	Source
hydrochloric acid	5 ppm	8 h TWA	DFG
	8 mg/m ³	8 h TWA	SUVA
	5 ppm	Short term exposure limit	SUVA
	7.5 mg/m ³		ACGIH
	10 ppm	IDLH	NIOSH
	15 mg/m ³		
	5 ppm		
	7.5 mg/m ³		
	50 ppm		
cyromazine	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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Colour	: light yellow to brown
pH	: 4 - 8 at 1 % w/v
Boiling point/range	: > 90 °C at 101.325 kPa
Flash point	: >= 100 °C
Flammability (solid, gas)	: not highly flammable
Oxidizing properties	: not oxidizing
Explosive properties	: Not explosive
Density	: 1.11 - 1.15 g/cm ³ at 20 °C
Water solubility	: Miscible
Solubility in other solvents	: soluble
Viscosity, dynamic	: 53.9 mPa.s at 20 °C : 19.8 mPa.s at 40 °C
Surface tension	: 71.3 mN/m at 20 °C

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 Rat, > 5,000 mg/kg
Acute dermal toxicity	: LD50 Rat, > 4,000 mg/kg
Skin irritation	: Rabbit: non irritant assessment according to 91/325/EEC
Eye irritation	: Rabbit: non irritant assessment according to 91/325/EEC

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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 : Cyromazine does not bioaccumulate

Stability in water : Cyromazine is persistent in water.

Stability in soil : Cyromazine is not persistent in soil.

Mobility : Cyromazine has low to high mobility in soil

ECOTOXICITY EFFECTS

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout), > 100 mg/l , 96 h
Derived from active ingredient(s)

Toxicity to aquatic invertebrates : EC50 *Daphnia magna* (Water flea), > 100 mg/l , 48 h
Derived from active ingredient(s)

Toxicity to algae : ERC50 *scenedesmus subspicatus*, > 100 mg/l , 120 h
Derived from active ingredient(s)

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.

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

Regulation: Not dangerous goods

Sea transport*IMDG:*

Regulation: Not dangerous goods

Air transport*IATA-DGR*

Regulation: Not dangerous goods

15. REGULATORY INFORMATION**Labelling according to EC Directives**

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.

Special labelling of certain preparations	:	To avoid risks to man and the environment, comply with the instructions for use.
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16. OTHER INFORMATION**Further information**

Text of R phrases mentioned in Section 2:

R34	Causes burns.
R37	Irritating to respiratory system.

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