

TRIGARD 100SL

Version 10 - This version replaces all previous versions.

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****Product name** : TRIGARD 100SL**Design code** : A6963C**1.2 Relevant identified uses of the substance or mixture and uses advised against****Use** : Insecticide**1.3 Details of the supplier of the safety data sheet****Company** : Syngenta Crop Protection AG
Postfach
CH-4002 Basel
Switzerland**Telephone** : +41 61 323 11 11**Telefax** : +41 61 323 12 12**E-mail address** : sds.ch@syngenta.com**1.4 Emergency telephone number****Emergency telephone number** : +44 1484 538444**SECTION 2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Classification according to Regulation (EU) 1272/2008

Chronic aquatic toxicity Category 3 H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Not classified according to EU legislation**2.2 Label elements**

Labelling: Regulation (EC) No. 1272/2008

Hazard statements : H412 Harmful to aquatic life with long lasting effects.**Precautionary statements** : P273 Avoid release to the environment.
P501 Dispose of contents/ container to an approved waste disposal plant.**Supplemental information** : EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

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Hazardous components which must be listed on the label:

Additional Labelling : To avoid risks to man and the environment, comply with the instructions for use.

2.3 Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Hazardous components**

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration
cyromazine	66215-27-8 266-257-8	-	Aquatic Chronic2; H411	8.9 % W/W
hydrochloric acid	7647-01-0 231-595-7 01-2119484862-27-X XXX	C R34 R37	Skin Corr.1B; H314 STOT SE3; H335 Met. Corr.1; H290	<= 0.5 % W/W

Substances for which there are Community workplace exposure limits.

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

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. FIRST AID MEASURES**4.1 Description of 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 the victim 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.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms** : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Medical advice** : There is no specific antidote available.
Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES**5.1 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

Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

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.

5.3 Advice for firefighters

Wear full protective clothing and self-contained breathing apparatus.

Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.

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Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect 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).

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

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.

Refer to disposal considerations listed in section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

No special protective measures against fire required.

Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

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.

7.3 Specific end use(s)

Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

Components	Exposure limit(s)	Type of exposure limit	Source
hydrochloric acid	5 ppm	8 h TWA	DFG
	5 ppm	8 h TWA	SUVA
	10 ppm	Short term exposure limit	SUVA
	5 ppm		ACGIH
	50 ppm		NIOSH
	1 ppm, 2 mg/m ³	IDLH	UK HSE
	5 ppm, 8 mg/m ³	8 h TWA	UK HSE
	5 ppm, 8 mg/m ³	15 min STEL	IOELV
	10 ppm, 15 mg/m ³	8 h TWA	IOELV
		15 min STEL	
cyromazine	3 mg/m ³	8 h TWA	SYNGENTA

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

8.2 Exposure controls

- 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.
- 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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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state	: liquid
Form	: liquid
Colour	: light yellow to brown
Odour	: sweetish
Odour Threshold	: no data available
pH	: 4 - 8 at 1 % w/v (as aqueous solution)
Melting point/range	: no data available
Boiling point/boiling range	: > 90 °C at 101.325 kPa
Flash point	: > 105 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: not highly flammable
Lower explosion limit	: no data available
Upper explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Density	: 1.11 - 1.15 g/cm ³ at 20 °C
Solubility in other solvents	: soluble
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: 405 °C
Thermal decomposition	: no data available
Viscosity, dynamic	: 56.3 mPa.s at 20 °C : 20.0 mPa.s at 40 °C
Viscosity, kinematic	: no data available
Explosive properties	: Not explosive
Oxidizing properties	: not oxidizing

9.2 Other information

Miscibility	: Miscible
Surface tension	: 41.0 mN/m at 20 °C

SECTION 10. STABILITY AND REACTIVITY**10.1 Reactivity**

No information available.

10.2 Chemical stability

No information available.

10.3 Possibility of hazardous reactions

None known.
Hazardous polymerisation does not occur.

10.4 Conditions to avoid

No information available.

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10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapors.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute oral toxicity	:	LD50 male and female rat, > 5,000 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate , > 5.0 mg/l
Acute dermal toxicity	:	LD50 male and female rat, > 4,000 mg/kg
Skin corrosion/irritation	:	rabbit: Non-irritating
Serious eye damage/eye irritation	:	rabbit: Non-irritating
Respiratory or skin sensitisation	:	Maximisation Test guinea pig: Not a skin sensitizer in animal tests. The toxicological data has been taken from products of similar composition.
Germ cell mutagenicity		
cyromazine	:	Did not show mutagenic effects in animal experiments.
hydrochloric acid	:	In vitro tests did not show mutagenic effects
Carcinogenicity		
cyromazine	:	Did not show carcinogenic effects in animal experiments.
hydrochloric acid	:	Animal testing did not show any carcinogenic effects.
Teratogenicity		
cyromazine	:	Did not show teratogenic effects in animal experiments.
Reproductive toxicity		
cyromazine	:	Did not show reproductive toxicity effects in animal experiments.
hydrochloric acid	:	Animal testing did not show any effects on fertility.
STOT - single exposure		
hydrochloric acid	:	May cause respiratory irritation.
STOT - repeated exposure		
cyromazine	:	No adverse effect has been observed in chronic toxicity tests.

SECTION 12. ECOLOGICAL INFORMATION

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12.1 Toxicity

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

Toxicity to aquatic plants : ErC50 Pseudokirchneriella subcapitata (green algae), > 100 mg/l , 96 h
: EbC50 Pseudokirchneriella subcapitata (green algae), > 100 mg/l , 96 h

12.2 Persistence and degradabilityBiodegradability

cyromazine : Not readily biodegradable.

Stability in water

cyromazine : Degradation half life: 94 - 254 d
Persistent in water.

12.3 Bioaccumulative potential

cyromazine : Does not bioaccumulate.

12.4 Mobility in soil

cyromazine : Cyromazine has low to high mobility in soil

12.5 Results of PBT and vPvB assessment

cyromazine : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

hydrochloric acid : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Other information : Classification of the product is based on the summation of the concentrations of classified components.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

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 regula-

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tions.

Contaminated packaging : Empty remaining contents.
 Triple rinse containers.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**Land transport (ADR/RID)**

Not dangerous goods

14.1 UN number: not applicable
 14.2 UN proper shipping name: not applicable
 14.3 Transport hazard class(es): not applicable
 14.4 Packing group: not applicable
 14.5 Environmental hazards: not applicable

Sea transport (IMDG)

Not dangerous goods

14.1 UN number: not applicable
 14.2 UN proper shipping name: not applicable
 14.3 Transport hazard class(es): not applicable
 14.4 Packing group: not applicable
 14.5 Environmental hazards: not applicable

Air transport (IATA-DGR)

Not dangerous goods

14.1 UN number: not applicable
 14.2 UN proper shipping name: not applicable
 14.3 Transport hazard class(es): not applicable
 14.4 Packing group: not applicable

14.6 Special precautions for user

none

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

GHS-Labeling

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : P273 Avoid release to the environment.
 P501 Dispose of contents/ container to an approved waste disposal plant.

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Hazardous components which must be listed on the label:

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16. OTHER INFORMATION**Further information**

Full text of R-phrases referred to under sections 2 and 3:

R34	Causes burns.
R37	Irritating to respiratory system.

Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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