STARPLEX 83 CC

Starplex 83 CC
Reg. No. 2004/015647/23
VAT Reg: 4810213183

Material Safety Data Sheet

Revised on: 01 November 2019 Revision number 2

1. ***Substance/preparation and company identification*:**

LARVAKIL SC

Use: Pest control

Company:
Starplex 83 CC
Reg. No. 2004/01564/23
P.O. Box 14374
BREDELL 1623
SOUTH AFRICA
TEL: (011) 979-4246/7

Emergency contact numbers
Tygerberg Poison Center: +2721 931 6129
Griffon Poison Information Centre - 082 446 8946

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2. ***Composition/information on ingredients*:**

Mixtures

Chemical nature: Insecticides
Mixture

Hazardous components

Chemical name	CAS-No EC-No Registration number	Classification (67/548/EEC)	Classification (Regulation (EC) no 1272/2008)	Concentration (%)
Diflubenzuron	35367-38-5 252-529-3	N;R50/53	Aquatic Acute 1; H400	48
			Aquatic Chronic 1; H410	

Ethanediol	107-21-1 203-473-3	Xn; R22	Actute Tox. 4; H302	< 10
Sodium diisopropylnaphthalene Sulphonate	1322-93-6 215-343-3	Xn; R22 Xi; R36/37	Acute Tox. 4; H302 Eye Irritant. 2; H319 STOT SE 3; H335	< 10

For the full text of the R-phrases mentioned in this section, refer to section 16.

For the full text of the H-statements mentioned in this section, refer to section 16.

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3. ***Hazard Identification:***

Classification of the substance or mixture

Classification (67/548/EEC, 1999/45/EC)

Dangerous for the environment :	R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Label elements

Labelling (REGULATION (EC) NO 1272/2008)

Hazard pictograms	Dangerous for the environment	
R-phrase(s):	R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
S-phrase(s)	S57	Use appropriate container to avoid environmental contamination.
	S60	This material and its container must be disposed of as hazardous waste.

Other hazards

No information available.

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4. ***First-aid measures:***

Description of first aid measures

If inhaled:	If breathed in, move person into fresh air. Give oxygen or artificial respiration if needed. Consult a physician after significant exposure.
In case of skin contact:	If on clothes, remove clothes. Wash off with warm water and soap. If skin irritation occurs, seek medical advice/attention. Wash contaminated clothing before re-use. Destroy contaminated shoes.
If swallowed:	Do NOT induce vomiting Rinse mouth with water Obtain medical attention
In case of eye contact:	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician

Most important symptoms and effects, both acute and delayed

Symptoms	The absorption of this product into the body may lead to the formation of methaemoglobine that, in sufficient concentration, causes cyanosis
Risks	Methaemoglobinemia

Indication of any immediate medical attention and special treatment needed

Treatment:	The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:	Carbon dioxide (CO2) Dry chemical Alcohol resistant Foam Water Mist
Unsuitable Extinguishing Media:	Water spray jet

Special hazards arising from the substance or mixture

Specific hazards during fire fighting:	No information available

Advice for firefighters

Special protective equipment for fire firefighters:	In the event of fire, wear self-contained breathing apparatus Full protective flameproof clothing Complete suit protecting against chemicals
Further information:	Use water spray to cool unopened containers Standard procedure for chemical fires Prevent fire extinguishing water from contaminating surface water or the groun water system

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions:	Evacuate personnel to safe areas Wear suitable protective equipment Avoid contact with skin and eyes

Environmental precautions

Environmental precautions:	Do not allow uncontrolled discharge of product into the environment Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up

Methods for cleaning up:	Dam up Contain spillage, soak up with non-combustible absorbent material. (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal, according to local/national regulations (see section 13) Large spills should be collected mechanically (Remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

Reference to other sections

Keep in properly labelled containers. Dispose of rinse water as waste water

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7. Handling and storage

Precautions for safe handling

Advice on safe handling:	Do not handle until all safety precautions have been read and understood. Handle and open container with care. Avoid contact with skin, eyes and clothing. Use only with adequate ventilation/personal protection. Smoking, eating and drinking should be prohibited in the application area. Wash thoroughly after handling. Keep container tightly closed.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:	Keep container tightly closed in a dry and well-ventilated place. Keep only in the original container.
Other data:	Stable at normal ambient temperature and pressure

Specific end uses

Specific use(s): Insecticides

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8. Exposure controls and personal protection

Control parameters

Components	CAS-N0	Value	Control parameters	Update	Basis
ethane-1,2-diol	107-21-1	TWA	20PPM 52MG/M3	6/16/2000	2000-39-EC
		STEL	40PPM 104MG/M3	6/16/2000	2000-39-3EC
		CEIL	20PPM 52MG/M3	6/7/2007	BE OEL

Exposure controls

Engineering measures

Use mechanical ventilation for general area control.

Exhaust air must be cleaned using approved equipment before returning it to the work place.
Ensure that eyewash stations and safety showers are closed to the workstation location.

Personal protective equipment

Respiratory Protection:	In the case of vapour formation use a respirator with an approved filter. Respirator with a vapour filter (EN 141)
Hand protection:	Chemical resistant protective gloves
Eye protection:	Safety glasses with side shields or safety goggles
Skin and body protection:	Long sleeved clothing. Remove and wash contaminated clothing before re-use. Discard contaminated shoes. To protect against splashes from pouring: Rubber or plastic boots. Rubber or plastic apron.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes and clothing. Do not inhale aerosol. Ensure adequate ventilation, especially in confined areas. When using do not eat, drink or smoke. Wash thoroughly after handling. Keep working clothes separately. Remove and wash contaminated clothing before re-use. Contaminated work clothing should not be allowed out of the workplace.

Environmental exposure controls

General advice:	Do not allow uncontrolled discharge of product into the environment. Do not flush into surface water or sanitary sewer system.

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9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Tan
Odour:	None
Odour Threshold:	No information available
Flash Point:	Not determined
Ignition Temperature:	No information available
Lower Explosion Limit:	No information available
Upper Explosion Limit:	No information available
Flammability (solid, gas):	No information available
Auto ignition Temperature:	No information available
pH:	6-8 Conc.: 1%
Boiling point/boiling range:	Note: no data available
Vapour pressure:	No information available

Density:	1.2 – 1.3g/cm^3
Water Solubility:	Dispersible
Partition Coefficient: N-Octanol/water	No information available
Solubility in other solvents:	No information available
Viscosity, Dynamic:	150 mPa.s at 20°C
Relative Vapour Density:	No information available
Evaporation Rate:	No information available

10. Stability and reactivity

Reactivity:	No dangerous reaction known under conditions of normal use
Chemical stability:	Stable under normal conditions
Possibility of hazardous reactions:	
Hazardous reactions:	Hazardous polymerisation does not occur.
Conditions to avoid:	Extremes of temperature and direct sunlight
Incompatible materials:	
Materials to avoid:	Strong acids and strong bases, Strong oxidizing agents.
Hazardous decomposition products:	
Hazardous decomposition Products:	Carbon monoxide Carbon dioxide (CO^2) Nitrogen oxides (NOx) Hydrogen halides

11. Toxicological information

Acute toxicity:

Acute oral toxicity:		LD50: >5.000 mg/kg	Species: rat
Acute oral toxicity:	Diflubenzuron:	LD50: 4.640 mg/kg	Species: rat

	Ethanediol:	LD50: 4.700 mg/kg	Species: rat	
	Sodium: diisopropylnaphthalenesulphonate	LD50: <2.000mg/kg	Species: rat	
Acute inhalation toxicity:		LC50:>2,88 mg/l	Species: rat	Exposure time: 4 h
Acute inhalation toxicity: Diflubenzuron:		LC50:>2,49 mg/l	Species: rat	Exposure time: 4 h
Acute dermal toxicity:		LC50:>2,000 mg/kg	Species: rat	
Acute dermal toxicity:	Diflubenzuron:	LD50: >10.000 mg/kg	Species: rat	
	Ethanediol:	LD50: >10.670 mg/kg	species: rabbit	

Skin corrosion/irritation:

Skin irritation:		Species: rabbit	Result: No skin irritation
Skin irritation	Diflubenzuron:	Species: rabbit	Result: No skin irritation Method: OECD Test Guideline 404 Exposure time: 4 h

Serious eye damage/eye irritation:

Eye irritation:

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12. Ecological Information

Toxicity

M-Factor	N-[[(4-Chlorophenyl)amino]carbonyl]	100

-2,6 - difluorobenzamide

Toxicity to fish (Chronic toxicity)

Diflubenzuron:	NOEC: 0,10 mg/l	Species: *Cyprindon* sp. (minnow)

Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity)

Diflubenzuron:	NOEC: <6mg/l	Species: *Daphnia magna* (water flea)

Persistence and degradability

Biodegradability:

Diflubenzuron

Bio-accumulative potential

Bioaccumulation

Diflubenzuron

Mobility in soil

Mobility:

Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bio-accumulating or toxic (PBT).

Other adverse effects

13. Disposal considerations

Waste treatment methods

Product:	Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of as hazardous waste in compliance with local and national regulations.

14. Transport information

ADR

UN number:	3082
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s (Diflubenzuron) (Diflubenzuron)
Transport hazard class(es):	9
Packing group:	III
Classification Code:	M6
Hazard identification No:	90
Labels:	9
Tunnel restriction code:	(E)
Environmentally hazardous:	Yes

IATA

UN Number:	3082
Description of the goods:	Environmentally hazardous substance, liquid, n.o.s (Diflubenzuron)
Class:	9
Packing group:	111
Labels:	9
Packing instruction (cargo aircraft):	914
Environmental hazardous:	Yes
Packing instruction (passenger aircraft):	914
Packing instruction (passenger aircraft):	Y914

IMDG

UN number:	3082
Description of the goods:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflubenzuron)

Class:	9
Packing group:	111
Labels:	9
EmS Number 1:	F-A
EmS Number 2:	S-F
Marine pollutant:	Yes
	Diflubenzuron

RID

UN Number:	3082
Description of the goods:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
	(Diflubenzuron)
Transport hazard class(es):	9
Packing group:	III
Classification code:	M6
Hazard identification No:	90
Labels:	9
Environmentally hazardous:	yes

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15. Regulatory information

Regulations of the European union (Labelling) / National legislation/Regulations

Safety, health and environmental regulations/legislation specific for the substance or mixture

Candidate list of substances of Very High Concern for Authorization:	This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57)	
Major Accidents Hazard Legislation:	96/82/EC	Update: 2003
Legislation:	Dangerous for the environment 9a Quantity 1: 100t Quantity 2: 100t	

Water contaminating class: (Germany)	WGK 3 Highly water endangering

Notification status

US. TSCA:	Not On TSCA Inventory
DSL:	This product contains the following components that are not on the Canadian DSL nor NDSL lists.
AICS:	Not in compliance with the inventory
NZLoC:	Not in compliance with the inventory
ENCS:	Not in compliance with the inventory
KECI:	Not in compliance with the inventory
PICCS:	Not in compliance with the inventory
IECSC:	Not in compliance with the inventory
CH INV:	The formulation contains substance listed on the Swiss Inventory

Chemical Safety Assessment

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16. Other information

Full text R-Phrases referred to under Sections 2 and 3:

R22:	Harmful is swallowed
R36/37:	Irritating to eyes and respiratory system
R50/53:	Very toxic to aquatic organism, may cause long term adverse effects in the aquatic environment

Full text of H-Statements referred to under Sections 2 and 3:

H302:	Harmful if swallowed

H319:	Cause serious eye irritation
H335:	May cause respiratory irritation
H400:	Very toxic aquatic life
H410:	Very toxic aquatic life with long lasting effects

The data contained in this safety data sheet is based on our current knowledge and experience and describe the product only with regard to safety requirements. The data does not describe the product properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed and adhered to.