

Safety Data Sheet

CYRUS SC - Reg. No: L 9731 (Act No 36 of 1947)

Date of issue: 25/11/2013

Date Revised: 26/06/2019

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
Product name:	CYRUS SC
Other means of identification:	Imidacloprid 350 g/L
UN number:	2902
Recommended use:	Insecticide
Restrictions on use:	No information available
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 WESTERN CAPE POISONS TELEPHONE SERVICE 0861 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
Chemical Name:	<i>E</i> -1-(6-chloro-3-pyridylmethyl)- <i>N</i> -nitroimidazolidin-2-ylideneamine
2) Classification of the substance / mixture:	
Classification of the product:	N, Xn, R20/22, R36/37/38, R50/53, R57 S1/2, S13, S20/21, S22, S24/25, S26, S37, S46, S57, S60, S61 Full text of symbols and R-phrases: see section 15.
Label elements:	  Xn – Harmful N – Dangerous for the environment
Health effects: eyes:	May cause irritation
Health effects: skin:	May cause irritation
Health effects: ingestion	Harmful if swallowed
Health effects: inhalation	May cause irritation

Health effects: Other	No data available
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3) COMPOSITION / INFORMATION ON INGREDIENTS:

Mixture:

Chemical name	% composition	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)	Classification according to 67/548/EEC
Imidacloprid	>35.0%	138261-41-43	428-040-8	Acute Tox. 4: H302 (Harmful if swallowed) Aquatic Acute 1: H400: Very toxic to aquatic life. Aquatic Chronic 1: H410: Very toxic to aquatic life with long lasting effects.	N; Xn; R20/22 R36/37/38 R50/53 R57 S1/2, S13, S20/21, S22 S24/25, S26 S37, S46 S57, S60 S61

Full text of R- and S-phrases: see section 15.

4) First Aid Measures:

Eye contact:	Hold the eye open and rinse slowly and gently with clean water for at least 15 minutes. Occasionally rinse under the eyelids. Remove contact lenses after the first 5 minutes. Seek medical attention.
Skin contact:	Carefully remove contaminated clothing and shoes and decontaminate before reuse. Wash affected area immediately with soap and water for 15 minutes, followed by a warm water rinse. Do not rub skin. Seek medical attention.
Ingestion:	Wash out mouth with water if victim is able, alert and conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting. Keep patient at rest. Seek medical attention immediately. If vomiting occurs, keep the head lower than hips to prevent aspiration.
Inhalation:	Remove the victim to fresh air. Keep the victim warm and at rest. If breathing stops, administer artificial respiration. Seek medical attention immediately.
Most important symptoms and effects, acute and delayed:	No information available.
Indication of immediate medical attention and special treatment needed: Advice to physician	No specific antidote is known. Treat symptomatically and supportively.

5) Fire-Fighting Measures:

Suitable extinguishing media:	Water spray, Foam, Dry chemical, Carbon dioxide, foam or sand. Water spray may be used for the cooling of unaffected stock.
Unsuitable extinguishing media:	Avoid the use of a solid water stream as this may cause spreading.
Special hazards arising from the substance or mixture:	Fire may produce irritating or poisonous vapours (hydrogen chloride, hydrogen cyanide, carbon monoxide, nitrogen oxides)

<p>Fire-fighting:</p> <p>Protective clothing:</p>	<p>Remove spectators from the surrounding area. Isolate the affected area and evacuate downwind. Keep upwind. Use the appropriate type of extinguisher for the type of surrounding fire. Fight the fire from the maximum distance using an unmanned hose holder or monitor hoses.</p> <p>Keep containers cool by spraying with water. Contain run off to prevent entry into water or drainage systems. Avoid inhaling hazardous vapours and fumes from the burning materials. Remove unaffected containers from the fire area if possible and if safe to do so. Dyke the fire control water for later disposal. Avoid the accumulation of polluted run-off from the site of the incident.</p> <p>Full protective clothing and self-contained breathing apparatus</p>
<p>6) Accidental Release Measures:</p>	
<p>Personal precautions:</p> <p>Environmental precautions:</p> <p>Cleaning procedure:</p> <p>Disposal:</p>	<p>Control access to the area Avoid skin, eye and clothing contact. Do not breathe in the spray or fumes. For personal protection see Section 8 Ventilate the spill area.</p> <p>Do not allow this product to enter drains or watercourses. Any spillages or uncontrolled discharges into any watercourses or public waters must be reported immediately to the police and to the Department of Water / Environmental Affairs. If the spill area is porous, the contaminated material must be collected for subsequent treatment and safe disposal.</p> <p>Wear protective clothing. Clear area of unprotected personnel and keep unprotected personnel upwind. Small spillages: Soak up with an inert absorbent material and sweep up or vacuum up and collect the spillage in suitable, labelled containers for safe disposal. Wash the area with a damp cloth and dispose of in suitable waste containers.</p> <p>Large spillages: Contain the spillage, soak up with a non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite etc). Transfer to a suitable, labelled container for later safe disposal according to local / national regulations. Large spills should also be collected mechanically (removed by pumping) for safe disposal. Collect any leaking liquid in sealable (metal / plastic) containers.</p> <p>Waste Disposal:</p> <p>In accordance with local and national regulations. Open dumping or burning of this product is prohibited. Waste generated from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus products into public sewers or where there is a danger of run-off or seepage into any water systems. Do not contaminate rivers, dams or other water sources with the product or used containers.</p> <p>Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.</p> <p>Container Disposal: Refer to the product label for instructions.</p> <p>In accordance with local and national regulations. Empty containers retain vapour and product residues. Refer to the product label for instructions. Triple rinse the empty containers. Do not re-use the empty container for any other purpose. Empty containers must be destroyed by perforation and flattening and then buried in an approved dump site. Prevent contamination of food, feedstuffs, water and eating utensils.</p>

7) Handling & Storage:	
<p>Handling:</p>	<p>Harmful if inhaled or swallowed and irritating to the eyes and skin. Avoid contact with eyes and skin and avoid inhalation of the spray and vapour. Use with adequate ventilation. Wash hands before eating, drinking, smoking, chewing gum, or using the toilet. Operators should change and wash clothing each day. Immediately remove clothing of this product gets inside. Thereafter, wash the skin thoroughly with a non-abrasive soap and water and put on clean clothing. Do not apply directly to any areas where surface water is present, or to intertidal below the mean high water mark. Any water used to clean equipment must be disposed of correctly in order to avoid contamination.</p>
<p>Storage:</p>	<p>Store in accordance with local regulations. Store in the original, tightly closed container in an isolated, cool (<40°C), dry, well-ventilated area away from sources of ignition. Keep under lock and key out of reach of children, unauthorised persons and animals. Keep away from food, drink and animal feeds and other agricultural products. Store at above -10 °C and below 40 °C Protect from direct sunlight, heat and open flames.</p>
8) Exposure Control / Personal Protection:	
<p>It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.</p> <p><u>PERSONAL PROTECTIVE EQUIPMENT:</u></p>	<p>Consult supplier to confirm that the equipment is suitable.</p>
<p>Clothing:</p>	<p>Body protection (chemical protection suit, boots) must be chosen depending on the activity and possibility of exposure.</p>
<p>Gloves:</p>	<p>Wear suitable chemically resistant safety gloves (e.g. nitrile rubber (.4mm)).</p>
<p>Eye protection:</p>	<p>Chemical safety goggles with side - shields.</p>
<p>Respiratory protection:</p>	<p>Wear respiratory protection if ventilation is inadequate. Use a particle filter with medium efficiency for solid and liquid particles</p>
<p>Emergency eye wash:</p>	<p>Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.</p>
9) Physical & Chemical Properties:	
<p>Form:</p>	<p>Liquid</p>
<p>Colour:</p>	<p>White</p>
<p>Odour:</p>	<p>Characteristic</p>
<p>Odour threshold:</p>	<p>No data available</p>
<p>pH:</p>	<p>7.1</p>
<p>Melting point / Freezing point</p>	<p>No data available</p>
<p>Initial boiling point and boiling range</p>	<p>No data available</p>
<p>Flash point:</p>	<p>>100° C</p>

Evaporation rate:	No data available
Flammability (solid, gas)	No data available
Upper/ lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	Approximately 1.08 g/L
Relative density:	No data available
Solubility(ies)	Miscible in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature:	No data available
Viscosity:	No data available

10) Stability & Reactivity:

Reactivity:	No data available
Chemical stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Hazardous decomposition product(s)	Thermal decomposition generates poisonous and irritating vapours and fumes which may contain: Carbon dioxide, carbon monoxide, nitrogen oxides, chlorides
Conditions to avoid:	Extreme heat
Incompatible materials:	Avoid contact with strong oxidising agents.

11) Toxicological Information:

Acute:
 Oral LD50 750 mg/kg , rat (male), 1020 mg/kg (female)

Dermal LD50 >5000mg/kg, rat

Inhalation LC50 (4h): >5.5 mg/L , rat

Skin irritation : Not an irritant, rabbit

Eye irritation : Not an irritant, rabbit

Sensitisation : Animal test did not cause sensitization, guinea pig

Other

- Reproductivity: A three generation study in rats: NOEL = 100 ppm (equivalent to 8 mg / kg / day)
- Teratogenicity: A study in rats: NOEL = 30 mg / kg / day.
- Mutagenicity: Imidacloprid may be weakly mutagenic.
- Carcinogenicity: Imidacloprid is considered to be of minimal carcinogenic risk, and is categorised as a "Group E" carcinogen (evidence of noncarcinogenicity for humans). There were no carcinogenic effects observed in a 2-year carcinogenicity study in rats fed up to 1 800 ppm imidacloprid.

12) Ecological Information:

Information below based on active ingredient:

Birds : Acute oral LD50 for Japanese quail 31, bobwhite quail 152 mg/kg. Dietary LC50 (5 d) for bobwhite quail 2225, mallard ducks >5000 mg/kg.
Fish : LC50 (96 h) for Carp: 280 mg/l, rainbow trout 210. mg/l.
Daphnia : EC50 (48 h) 0.055 mg/L Hyalella azteca, 85 mg/L Water flea
Algae : EC50 (96h) > 100 mg/L green alga
Bees : Harmful to honeybees by direct contact (LD50 (contact, 48h) 8.3 ng/bee for 48h), but no problems expected
Worms : LC50 for Eisenia foetida 10.7 mg/kg dry soil.

Persistence/Degradability

Data given in this section are for the active ingredient:

The most important metabolic steps are oxidation at the imidazolidine ring, reduction or loss of the nitro group, hydrolysis to 6-chloronicotinic acid and mineralisation; these processes are strongly accelerated by vegetation. Imidacloprid shows a medium adsorption to soil. Column leaching tests (with prior ageing) with a.i. and various formulations showed that imidacloprid and soil metabolites are to be classified as immobile; leaching into deeper soil layers is not to be expected if imidacloprid is used as recommended. Stable to hydrolysis under sterile conditions (under exclusion of light). Environmental DT₅₀ c. 4 h (calc., based on tests of direct photolysis in aqueous solutions). Besides sunlight, the microbial activity of a water/sediment system is an important factor for the degradation of imidacloprid.

Biodegradation: No data available

Bioaccumulative potential: No data available.

13) Disposal Considerations:

Waste Disposal:

In accordance with local and national regulations. Open dumping or burning of this product is prohibited. Waste generated from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus products into public sewers or where there is a danger of run-off or seepage into any water systems. Do not contaminate rivers, dams or other water sources with the product or used containers.

Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

In accordance with local and national regulations. Empty containers retain vapour and product residues. Refer to the product label for instructions. Triple rinse the empty containers. Do not re-use the empty container for any other purpose. Empty containers must be destroyed by perforation and flattening and then buried in an approved dump site. Prevent contamination of food, feedstuffs, water and eating utensils.

14) Transportation Information:

UN NUMBER: 2902

ROAD TRANSPORT (ADR/IRD):

CLASS: 9
PACKAGING GROUP: III
SHIPPING NAME: PESTICIDES, LIQUID, TOXIC, N. O. S (Imidacloprid)

MARITIME TRANSPORT (IMDG/IMO):

CLASS: 9
PACKAGING GROUP: III
SHIPPING NAME: PESTICIDES, LIQUID, TOXIC, N. O. S (Imidacloprid)
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC code): NA
Special precautions: NA
Environmental hazard: Yes

AIR TRANSPORT (ICAO/IATA):

CLASS: 9
PACKAGING GROUP: III
SHIPPING NAME: PESTICIDES, LIQUID, TOXIC, N. O. S (Imidacloprid)

15) Regulatory Information:

Symbols: Xn – Harmful

N - Dangerous for the environment

Risk – Phrase:

R20/22 - Harmful if inhaled and if swallowed.

R36/37/38 - Irritating to eyes, respiratory system and skin.

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

R57 - Toxic to bees

Safety – Phrase:

S1/2 - Keep locked up and out of reach of children.

S13 - Keep away from food, drink and animal feeding stuffs.

S20/21 - When using, do not eat, drink or smoke.

S22 - Do not breathe dust.

S24/25 - Avoid contact with skin and eyes.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 - Wear suitable gloves.

S46 - If swallowed, seek medical advice immediately and show this container or label.

S57 - Use appropriate container to avoid environmental contamination.

S60 - This material and its container must be disposed of as hazardous waste.

S61 - Avoid release to the environment. Refer to special instructions/ Safety data sheets.

16. Other Information

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS.

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