

SAFETY DATA SHEET

VITAFLO® C SEED TREATMENT



Version 1.8 Revision Date: 10.11.2015 MSDS Number: 400000004375 Country: AU
Language: EN

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : VITAFLO® C SEED TREATMENT

Product code : 400000004375

Manufacturer or supplier's details

Company: Arysta LifeScience Australia Pty Ltd
c/o Level 7, 435 King William Street
Adelaide SA
Australia
5000
Telephone : + 61 8 8112 0900

Prepared by sds.request@arysta.com

Further information for the safety data sheet :
sds.request@arysta.com

1.4 Emergency telephone number

Emergency telephone number: +61 2801 44558, ORICA : 1800 033 111 (24 hr Service)ORICA :
1800 033 111 (24 hr Service)
For additional emergency telephone numbers see section 16 of the
Safety Data Sheet.

Recommended use of the chemical and restrictions on use

Recommended use : Seed treatment

Restrictions on use : Agriculture
For professional users only.
APVMA No: 51413

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Specific target organ toxicity - repeated exposure (Oral) : Category 2

GHS Label element

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Hazard pictograms :

Signal word : Warning

Hazard statements : H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary statements : **Prevention:**
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Response:
P314 Get medical advice/ attention if you feel unwell.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

Hazardous substance
Dangerous goods
Very toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Carboxin - 400 g/L
Cypermethrin - 3.2 g/L

Hazardous components

Chemical Name	CAS-No.	Concentration (% w/w)
carboxin	5234-68-4	>= 30 - < 60
ethane-1,2-diol	107-21-1	< 10
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	< 10
alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	52315-07-8	< 10

SECTION 4. FIRST AID MEASURES

General advice : For advice, contact a Poisons Information Centre (Phone: Australia 131 126 or New Zealand 0800 764 766) or a doctor at once.

If inhaled : Remove to fresh air.
Obtain medical attention.

In case of skin contact : Remove contaminated clothing and shoes.
Wash off with warm water and soap.

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- If symptoms persist, call a physician.
- Remove contaminated clothing and shoes.
Wash off with warm water and soap.
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
If symptoms persist, call a physician.
- If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : Symptoms may be delayed.
May cause damage to organs through prolonged or repeated exposure.
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.
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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Extinguishing media - large fires
Alcohol-resistant foam
(on small fires)
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : Water spray jet
- Specific extinguishing methods : Do not discharge extinguishing waters into streams, rivers and lakes.
- Special protective equipment for firefighters : Body covering protective clothing, full "turn-out" gear.
Self-contained breathing apparatus (EN 133)
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear suitable protective equipment.
Avoid contact with skin and eyes.
- Environmental precautions : Prevent leaks and prevent soil / water pollution caused by leaks.
- Methods and materials for containment and cleaning up : Absorb on inert material such as sand, earth, vermiculite.
Collect for disposal.
Dam up.
Large spills should be collected mechanically (remove by pumping) for disposal.
Pump excess material into suitable container (metal drums, metal tank, or such).
- In accordance with local and national regulations.
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SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not get in eyes.
Avoid prolonged or repeated contact with skin.
Avoid inhalation of vapour or mist.
Use with adequate ventilation.
Wash thoroughly after handling.
NOTE TO END-USERS: The employee protection recommendations on this SDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Use only with adequate ventilation.
- Conditions for safe storage : Keep in a dry, cool place.
Do not freeze.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethane-1,2-diol	107-21-1	TWA (particulate)	10 mg/m ³	AU OEL
		Further information: Skin absorption		
		TWA (Vapour)	20 ppm 52 mg/m ³	AU OEL
		Further information: Skin absorption		
		STEL (Vapour)	40 ppm 104 mg/m ³	AU OEL
		Further information: Skin absorption		
		C	100 mg/m ³	ACGIH
		C (Aerosol only)	100 mg/m ³	ACGIH
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	TWA (Mist)	5 mg/m ³	AU OEL
		TWA (Inhalable fraction)	5 mg/m ³	ACGIH

Personal protective equipment

Respiratory protection : not required under normal use

Hand protection

Remarks : Impervious gloves

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Eye protection : Safety glasses with side-shields

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : suspension

Colour : red

Odour : slight

Odour Threshold : No data available

pH : 7 - 8

Melting point/range : Not applicable

Boiling point/boiling range : No data available

Flash point : > 94 °C

Evaporation rate : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 1.142

Solubility(ies)

 Water solubility : No data available

 Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

 Viscosity, dynamic : No data available

 Viscosity, kinematic : No data available

Self-Accelerating decomposition temperature (SADT) : Method: No information available.

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SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions : None known.

Conditions to avoid : Contamination

Incompatible materials : Oxidizing agents
Acids and bases

Hazardous decomposition products : Burning produces noxious and toxic fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Components:

carboxin:

Acute oral toxicity : LD50 (Rat, male): 2,588 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 4.7 mg/l
Exposure time: 4 h
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rabbit, male and female): > 4,000 mg/kg

ethane-1,2-diol:

Acute oral toxicity : LD50 (Rat, female): 4,700 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 10,670 mg/kg

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Acute oral toxicity : LD50 (Rat): 287 mg/kg
GLP: yes

Acute inhalation toxicity : LC50 (Rat): 3.28 mg/l
Test atmosphere: dust/mist
GLP: yes

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
GLP: yes

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Skin corrosion/irritation

Product:

Species: Rabbit
Result: No skin irritation

Components:

carboxin:

Species: Rabbit
Result: No skin irritation

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Species: Rabbit
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: No eye irritation

Components:

carboxin:

Species: Rabbit
Result: slight irritation
Assessment: No eye irritation

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Species: Rabbit
Result: No eye irritation
GLP: yes

Respiratory or skin sensitisation

Product:

Species: Guinea pig
Result: Does not cause skin sensitisation.

Components:

carboxin:

Species: Guinea pig
Assessment: May cause sensitisation by skin contact.
Method: Magnusson-Kligmann-Test
Result: positive
GLP: yes

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.
GLP: yes

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Carcinogenicity - Assessment : negative

Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Carcinogenicity - Assessment : negative

Reproductive toxicity

Components:

carboxin:

Effects on fertility : General Toxicity - Parent: No observed adverse effect level: 1 mg/kg bw/day
General Toxicity F1: No observed adverse effect level F1: 20 mg/kg bw/day
Early Embryonic Development: No observed adverse effect level F2: 10 mg/kg bw/day

Effects on foetal development : Species: Rat
General Toxicity Maternal: No observed adverse effect level: 10 mg/kg bw/day
Teratogenicity: No observed adverse effect level: 90 mg/kg bw/day

Species: Rabbit
General Toxicity Maternal: No observed adverse effect level: 75 mg/kg bw/day
Teratogenicity: No observed adverse effect level: 75 mg/kg bw/day

Reproductive toxicity - Assessment : negative
negative

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Effects on fertility : General Toxicity - Parent: No observed adverse effect level: 10 mg/kg bw/day

Effects on foetal development : Teratogenicity: No observed adverse effect level: 70 mg/kg bw/day

STOT - single exposure

Product:

Remarks: No data available

Repeated dose toxicity

Components:

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carboxin:

Species: Rat, male
NOAEL: 30 mg/kg
Application Route: Dermal
Exposure time: 28 d
GLP: yes
Target Organs: Kidney

Species: Rat, male
NOAEL: 5.5 mg/kg
Application Route: Oral
Exposure time: 90 d
GLP: yes
Target Organs: Kidney

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Species: Dog
NOAEL: 500 ppm (12.5 mg/kg bw/d)
Exposure time: 90 d
GLP: yes

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

carboxin:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.3 mg/l
Exposure time: 96 h
Test Type: flow-through test
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 57 mg/l
Exposure time: 48 h
Test Type: flow-through test
GLP: yes

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.48 mg/l
Exposure time: 5 d
Test Type: static test

Toxicity to fish (Chronic toxicity) : NOEC (Cyprinus carpio (Carp)): 0.32 mg/l
Exposure time: 21 d
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.32 mg/l
Exposure time: 17 d
GLP: yes

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Toxicity to fish : LC50 (Salmo gairdneri): 0.0028 mg/l

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Exposure time: 96 h
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.0003 mg/l
Exposure time: 48 h
GLP: yes

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): > 0.1 mg/l

M-Factor (Acute aquatic toxicity) : 1,000

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.00003 mg/l

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.00004 mg/l
Exposure time: 21 d

M-Factor (Chronic aquatic toxicity) : 1,000

Persistence and degradability

Components:

carboxin:

Biodegradability : Result: Not readily biodegradable.

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Hydrolysis: at 25 °C (> 100 d)

Photodegradation :

Bioaccumulative potential

Components:

carboxin:

Partition coefficient: n-octanol/water : log Pow: 2.3

ethane-1,2-diol:

Partition coefficient: n-octanol/water : log Pow: -1.3

Mobility in soil

Components:

alpha-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Stability in soil : Soil temperature: 21 °C
Remarks: cis isomer

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Soil temperature: 21 °C
Remarks: trans isomer

Other adverse effects

Components:

carboxin:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of as hazardous waste in compliance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (carboxin)
Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., Environmentally hazardous substance, liquid, n.o.s. (carboxin)
Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (carboxin)
Class : 9
Packing group : III

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Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

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

Not applicable for product as supplied.

National Regulations

ADG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (carboxin)
Class : 9
Packing group : III
Labels : 9
Hazchem Code :
Remarks : SP No. AU01 Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;
(a) packagings that do not incorporate a receptacle exceeding 500 kg(L); or
(b) IBCs.

SECTION 15. REGULATORY INFORMATION

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

R-phrases : R48/22 Also harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases : S 2 Keep out of the reach of children.
S23 Do not breathe fumes, vapour.
S24/25 Avoid contact with skin and eyes.
S56 Dispose of this material and its container to hazardous or special waste collection point.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Standard for the Uniform Scheduling of Medicines and Poisons : Schedule 6

Prohibition/Licensing Requirements : There is no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory

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legislation.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; OECD - Organization for Economic Cooperation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TDG - Transportation of Dangerous Goods; UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

Date format : dd.mm.yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

AU / EN

Carechem24 International Worldwide Coverage

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Emergency Phone Number

<u>Europe:</u>	All European Countries	+44 (0) 1235 239 670 (NCEC)
<u>Asia Pacific:</u>	East / South East Asia – Regional Number	+65 3158 1074
	Australia	+61 2801 44558
	New Zealand	+64 9929 1483
	China	+86 532 8388 9090
	China Taiwan	+86 10 5100 3039
	Japan	+81 345 789 341
	Indonesia	00780 3011 0293
	Malaysia	+60 3 6207 4347
	Thailand	001800 1 2066 6751
	Korea	+65 3158 1285 +82 (0)234 798 401
	Vietnam	+65 3158 1255
	India	+65 3158 1198 0800 100 7479
	Pakistan	+65 3158 1329
	Philippines	+65 31581203
	Sri Lanka	+65 3158 1195
	Emergency Phone Number	+65 3158 1200
<u>Middle East / Africa:</u>	Arabic speaking countries	+44 (0) 1235 239 671
	South Africa	+27 21 300 2732
	All other countries	+44 (0) 1235 239 670
<u>America</u>	United States of America and Canada	+1866 928 0789 +1 215 207 0061
<u>Latin America:</u>	Brazil	+55 11 3197 5891
	Mexico	+52 555 004 8763
	Chile	+56 225 829 336
	All other countries	+44 (0) 1235 239 670