

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**Product name : **AGRI-FLEX 185 SC**

Design code : A15543E

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 tele-
phone number** : +44 1484 538444

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Classification according to Regulation (EU) 1272/2008

Acute toxicity (Oral)	Category 4	H302
Acute toxicity (Inhalation)	Category 1	H330
Reproductive toxicity	Category 2	H361d
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

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

T, Toxic

N, Dangerous for the environment

R22: Harmful if swallowed.

R26: Very toxic by inhalation.

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

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

Hazard pictograms



Signal word : Danger

Hazard statements	:	H302 H330 H361d H410	Harmful if swallowed. Fatal if inhaled. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects.
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Precautionary statements	:	P102 P201 P273 P280 P284 P304 + P340 P310 P391 P501	Keep out of reach of children. Obtain special instructions before use. Avoid release to the environment. Wear protective gloves/ protective clothing. Wear respiratory protection. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. Collect spillage. Dispose of contents/ container to an approved waste disposal plant.
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Supplemental information	:	EUH401	To avoid risks to human health and the environment, comply with the instructions for use. Contains 1,2-benzisothiazol-3-one. May produce an allergic reaction.
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Hazardous components which must be listed on the label:

- abamectin
- thiamethoxam

Labelling: EU Directives 67/548/EEC or 1999/45/EC

Symbol(s)

**Toxic****Dangerous
for the envi-
ronment**

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

R-phrases(s)	:	R22 R26 R50/53	Harmful if swallowed. Very toxic by inhalation. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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S-phrases(s)	:	S 2 S13 S20/21 S35 S36/37 S57	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. This material and its container must be disposed of in a safe way. Wear suitable protective clothing and gloves. Use appropriate container to avoid environmental contamination.
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Additional Labelling	:	To avoid risks to man and the environment, comply with the instructions for use.	
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Hazardous components which must be listed on the label:

- abamectin
- thiamethoxam

2.3 Other hazards

None known.

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

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
thiamethoxam	153719-23-4	F, Xn, N R11 R22 R50/53	Flam. Sol.1; H228 Acute Tox.4; H302 Aquatic Acute1; H400 Aquatic Chronic1; H410	13.85 % W/W
abamectin	71751-41-2 65195-56-4 65195-55-3	T+, N R63 R21 R26/28 R48/23/25 R50/53	Repr.2; H361d Acute Tox.2; H300 Acute Tox.3; H311 STOT RE1; H372 Acute Tox.1; H330 Aquatic Acute1; H400 Aquatic Chronic1; H410	3.02 % W/W
poly(oxy-1,2-ethanediyl), alpha-phosphono-omega-[2,4,6-tris(1-phenylethyl)phenoxy]-	90093-37-1 114535-82-9 618-446-5	Xi R36	Eye Irrit.2; H319	1 - 5 % W/W
propane-1,2-diol	57-55-6 200-338-0	-	-	1 - 5 % W/W
magnesium aluminum silicate dispersion		-	Eye Irrit.2; H319	1 - 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.

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

- 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.
- 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 : Lack of coordination
Tremors
Dilatation of the pupil

4.3 Indication of any immediate medical attention and special treatment needed

- Medical advice : This material is believed to enhance GABA activity in animals. It is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic mectin exposure.
Toxicity can be minimized by early administration of chemical absorbents (e.g. activated charcoal).
If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures as indicated by clinical signs, symptoms and measurements.

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.

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

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.

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.

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

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.

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

Components	Exposure limit(s)	Type of exposure limit	Source
abamectin	0.02 mg/m ³	8 h TWA	SYNGENTA
thiamethoxam	3 mg/m ³	8 h TWA	SYNGENTA
propane-1,2-diol	10 mg/m ³ (Particulates) 150 ppm, 470 mg/m ³ (Total (vapour & particulates))	8 h TWA 8 h TWA	UK HSE UK HSE

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 mists or vapors are generated, use local exhaust ventilation controls.
Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.
Seek additional occupational hygiene advice.

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

- When selecting personal protective equipment, seek appropriate professional advice.
Personal protective equipment should be certified to appropriate standards.
- Respiratory protection : A combination gas, vapor and particulate respirator may be necessary until effective technical measures are installed.
Protection provided by air-purifying respirators is limited.
Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.
- 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.

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

Physical state	: liquid
Form	: No data available
Colour	: No data available
Odour	: No data available
Odour Threshold	: No data available
pH	: No data available
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: > 99 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 1.1 g/ml
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2 Other information

: No data available

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

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

No information available.

10.2 Chemical stability

No information available.

10.3 Possibility of hazardous reactions

No hazardous reactions by normal handling and storage according to provisions.

10.4 Conditions to avoid

No decomposition if used as directed.

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	:	female Rat, 550 mg/kg The toxicological data has been taken from products of similar composition.
Acute inhalation toxicity	:	male and female Rat, 0.052 - 0.52 mg/l , 4 h The toxicological data has been taken from products of similar composition.
Acute dermal toxicity	:	male and female Rat, > 5,000 mg/kg The toxicological data has been taken from products of similar composition.
Skin corrosion/irritation	:	Rabbit: Moderately irritating The toxicological data has been taken from products of similar composition.
Serious eye damage/eye irritation	:	Rabbit: Mildly irritating The toxicological data has been taken from products of similar composition.
Respiratory or skin sensitisation	:	Buehler Test Guinea pig: Not a skin sensitizer.
Germ cell mutagenicity		
thiamethoxam	:	Did not show mutagenic effects in animal experiments.
abamectin	:	Did not show mutagenic effects in animal experiments.

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

Carcinogenicity

- thiamethoxam : Liver tumours noted in mice that are not relevant to humans.
abamectin : Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

- thiamethoxam : Did not show reproductive toxicity effects in animal experiments.
abamectin : Experiments have shown reproductive toxicity effects on laboratory animals.

STOT - repeated exposure

- thiamethoxam : Did not show neurotoxicity in animal experiments.
abamectin : Central nervous system effects in chronic/subchronic animal tests.

Further information

- thiamethoxam : No adverse effects in humans are expected at levels below the occupational exposure limit and when the product is handled and used according to the label.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

- Toxicity to fish : LC50 *Cyprinus carpio* (Carp), 0.724 mg/l , 96 h
Based on test results obtained with similar product.
- Toxicity to aquatic invertebrates : EC50 *Daphnia magna* (Water flea), 0.00637 mg/l , 48 h
Based on test results obtained with similar product.
- Toxicity to aquatic plants
- thiamethoxam : ErC50 *Pseudokirchneriella subcapitata* (aglae), > 81.8 mg/l , 72 h
EbC50 *Pseudokirchneriella subcapitata* (aglae), > 81.8 mg/l , 72 h
- abamectin : EbC50 *Pseudokirchneriella subcapitata* (green algae), > 100 mg/l , 72 h
ErC50 *Pseudokirchneriella subcapitata* (green algae), > 100 mg/l , 72 h

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

12.2 Persistence and degradability**Biodegradability**

- thiamethoxam : Not readily biodegradable.
abamectin : Not readily biodegradable.

Stability in water

- thiamethoxam : Degradation half life: 11 d
Not persistent in water.
abamectin : Degradation half life: 1.7 d
Not persistent in water.

Stability in soil

- thiamethoxam : Degradation half life: 51 d
Not persistent in soil.
abamectin : Degradation half life: 12 - 52 d
Not persistent in soil.

12.3 Bioaccumulative potential

- thiamethoxam : The substance has low potential for bioaccumulation.
abamectin : Does not bioaccumulate.

12.4 Mobility in soil

- thiamethoxam : The substance has medium mobility in soil.
abamectin : Abamectin has slight mobility in soil.

12.5 Results of PBT and vPvB assessment

- thiamethoxam : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).
abamectin : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

None known.

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 regulations.
- Contaminated packaging : Empty remaining contents.
Triple rinse containers.

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

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)**

14.1 UN number: UN 2902
14.2 UN proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S. (ABAMECTIN AND THIAMETHOXAM)
14.3 Transport hazard class(es): 6.1
14.4 Packing group: III
Labels: 6.1
14.5 Environmental hazards : Environmentally hazardous
Tunnel restriction code: E

Sea transport(IMDG)

14.1 UN number: UN 2902
14.2 UN proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S. (ABAMECTIN AND THIAMETHOXAM)
14.3 Transport hazard class(es): 6.1
14.4 Packing group: III
Labels: 6.1
14.5 Environmental hazards : Marine pollutant

Air transport (IATA-DGR)

14.1 UN number: UN 2902
14.2 UN proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S. (ABAMECTIN AND THIAMETHOXAM)
14.3 Transport hazard class(es): 6.1
14.4 Packing group: III
Labels: 6.1

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

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

Hazard pictograms



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
 H330 Fatal if inhaled.
 H361d Suspected of damaging the unborn child.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : P102 Keep out of reach of children.
 P201 Obtain special instructions before use.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing.
 P284 Wear respiratory protection.
 P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P310 Immediately call a POISON CENTER or doctor/ physician.
 P391 Collect spillage.
 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. Contains 1,2-benzisothiazol-3-one. May produce an allergic reaction.

Remarks : Classified using all GHS hazard classes and categories. Where the GHS contains options, the most conservative option has been chosen. Regional or national implementations of GHS may not implement all hazard classes and categories.

Hazardous components which must be listed on the label:

- abamectin
- thiamethoxam

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:

R11 Highly flammable.
 R21 Harmful in contact with skin.

AGRI-FLEX 185 SC

Version 1 - This version replaces all previous versions.

Revision Date 18.09.2014

Print Date 21.04.2015

R22	Harmful if swallowed.
R26/28	Very toxic by inhalation and if swallowed.
R36	Irritating to eyes.
R48/23/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.

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

H228	Flammable solid.
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to the nervous system through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

ADR:	European Agreement Concerning the International Carriage of Dangerous Goods by Road	RID:	Regulations concerning the International Carriage of Dangerous Goods by Rail
IMDG:	International Maritime Code for Dangerous Goods	IATA-DGR:	International Air Transport Association Dangerous Goods Regulations
LC50:	Lethal concentration, 50%	LD50:	Lethal dose, 50%
EC50:	Effective dose, 50%	GHS:	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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