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CVR No. DK 12 76 00 43

SAFETY DATA SHEET

AZOXYSTROBIN 200 g/l + EPOXICONAZOLE 100 g/l SC

Revision: Sections containing a revision or new information are marked with a ♣.

♣ SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. **Product identifier** ..... **AZOXYSTROBIN 200 g/l + EPOXICONAZOLE 100 g/l SC**
Contains azoxystrobin, epoxiconazole and 1,2-benziso-thiazole-3(2H)-one

1.2. **Relevant identified uses of the substance or mixture and uses advised against** ..... Can be used as fungicide only.

1.3. **Details of the supplier of the safety data sheet**

CHEMINOVA A/S, a subsidiary of FMC Corporation
Thyborønvej 78
DK-7673 Harboøre
Denmark
SDS.Ronland@fmc.com

1.4. **Emergency telephone number**
Company ..... (+45) 97 83 53 53 (24 h; for emergencies only)

Medical emergencies:
Austria: +43 1 406 43 43
Belgium: +32 70 245 245
Bulgaria: +359 2 9154 409
Cyprus: 1401
Czech Republic: +420 224 919 293
+420 224 915 402
Denmark: +45 82 12 12 12
France: +33 (0) 1 45 42 59 59
Finland: +358 9 471 977
Greece: 30 210 77 93 777
Hungary: +36 80 20 11 99
Ireland (Republic): +352 1 809 2166
Italy: +39 02 6610 1029
Lithuania: +370 523 62052
+370 687 53378
Luxembourg: +352 8002 5500
Netherlands: +31 30 274 88 88
Norway: +47 22 591300
Poland: +48 22 619 66 54
+48 22 619 08 97
Portugal: 808 250 143 (in Portugal only)
+351 21 330 3284
Romania: +40 21318 3606
Slovakia: +421 2 54 77 4 166
Slovenia: +386 41 650 500
Spain: +34 91 562 04 20
Sweden: +46 08-331231
112
Switzerland: 145
United Kingdom: 0870 600 6266 (in the UK only)
U.S.A. & Canada: +1 800 / 331-3148 (PROSAR)
All other countries: +1 651 / 632-6793 (PROSAR - Collect)

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SECTION 2: HAZARDS IDENTIFICATION

2.1. **Classification of the substance or mixture**

Acute oral toxicity: Category 4 (H302)
Acute inhalation toxicity: Category 4 (H332)
Sensitisation – skin: Category 1B (H317)
Carcinogenicity: Category 2 (H351)
Toxic to reproduction: Category 1B (H360Df)
Hazards to the aquatic environment, acute: Category 1 (H400)
chronic: Category 1 (H410)

WHO classification ..... Class II: Moderately hazardous

Health hazards ..... Chronic exposure to epoxiconazole may cause harm to the unborn child and impair fertility. Epoxiconazole is a suspected carcinogen.

The inhalation hazard of the product depends on size and thereby inhalability of aerosol droplets.

Environmental hazards ..... The product is toxic to aquatic organisms.

2.2. **Label elements**

According to EU Reg. 1272/2008 as amended

Product identifier ..... Azoxystrobin 200 g/l + Epoxiconazole 100 g/l SC
Contains azoxystrobin, epoxiconazole and 1,2-benzisothiazol-3(2H)-one

Hazard pictograms (GHS07, GHS08, GHS09)

Signal word ..... Danger

Hazard statements
H302 ..... Harmful if swallowed.
H317 ..... May cause an allergic skin reaction.
H332 ..... Harmful if inhaled.
H351 ..... Suspected of causing cancer.
H360Df ..... May damage the unborn child and suspected of damaging fertility.
H410 ..... Very toxic to aquatic life with long lasting effects.

Supplementary hazard statement
EUH401 ..... To avoid risks to human health and the environment, comply with the instructions of use.

Precautionary statements
P201 ..... Obtain special instructions before use.
P261 ..... Avoid breathing vapours.
P264 ..... Wash hands thoroughly after handling.
P280 ..... Wear protective gloves, protective clothing and eye protection.

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P312 ..... Call a POISON CENTER or doctor/physician if you feel unwell.
P501 ..... Dispose of contents/container as hazardous waste.

2.3. **Other hazards** ..... None of the ingredients in the product meets the criteria for being PBT or vPvB.

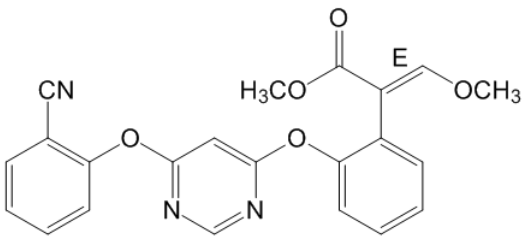
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances** ..... The product is a mixture, not a substance.

3.2. **Mixtures** ..... See section 16 for full text of hazard statements.

Active ingredients

Azoxystrobin.....
Content: 19% by weight
CAS name ..... Benzeneacetic acid, 2-[[6-(2-cyanophenoxy)-4-pyrimidinyl]oxy]-α-(methoxymethylene)-, methyl ester, (αE)-
CAS no. 131860-33-8
IUPAC name ..... Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate
ISO name/EU name ..... Azoxystrobin
EC no. (EINECS no.) ..... None
EU index no. 607-256-00-8
Classification of the ingredient ..... Inhalation toxicity: Category 3 (H331)
Hazards to the aquatic environment, acute: Category 1 (H400)
chronic: Category 1 (H410)
Structural formula .....



Epoxiconazole .....
Content: 9% by weight
CAS name ..... 1H-1,2,4-Triazole, 1-[[(2R,3S)-3-(2-chlorophenyl)-2-(4-fluoro-phenyl)oxiranyl]methyl]-, rel-
CAS no. ..... 133855-98-8 (before 106325-08-0)
IUPAC name ..... (2RS,3SR)-1-[3-(2-Chlorophenyl)-2,3-epoxy-2-(4-fluorophenyl)-propyl]-1H-1,2,4-triazole
ISO name/EU name ..... Epoxiconazole
EC no. (ELINCS no.) 406-850-2
EU index no. 613-175-00-9
Classification of the ingredient ..... Carcinogenicity: Category 2 (H351) *
Reproduction toxicity: Category 1B (H360Df) *
Hazards to the aquatic environment, acute: Category 1 (H400)
chronic: Category 2 (H411) *
* = harmonised classification

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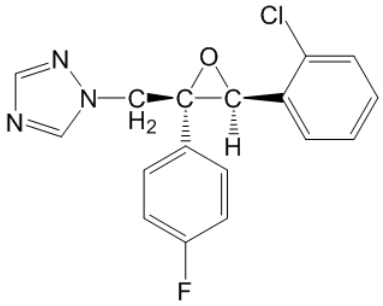
Structural formula .....



Reportable ingredients	Content (% w/w)	CAS no.	EC no. (EINECS no.)	Classification
Alcohols, C16-18, ethoxylated, propoxylated	9	68002-96-0	None	Aquatic Acute 1 (H400)
Propane-1,2-diol Reg. no. 01-2119456809-23	6	57-55-6	200-338-0	None
1,2-Benzisothiazol-3(2H)-one	0.01	2634-33-5	220-120-9	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400)

SECTION 4: FIRST AID MEASURES

4.1. **Description of first aid measures**

In case of exposure, do not wait for symptoms to develop. Immediately start the recommended procedures below.

Inhalation .....

If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

Skin contact .....

Immediately flush skin with water while removing contaminated clothing and footwear. Wash with water and soap. See physician if any symptom develops.

Eye contact .....

Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. See physician if irritation develops.

Ingestion .....

Let the exposed person rinse mouth and let him/her drink several glasses of water or milk, but not induce vomiting. If vomiting does occur, let him/her rinse mouth and drink fluids again. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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4.2.	**Most important symptoms and effects, both acute and delayed**	Inhalation may result in difficulty breathing. Ingestion may cause diarrhoea, shortness of breath and loss of balance.
4.3.	**Indication of any immediate medical attention and special treatment needed**	Immediate medical attention is required in case of ingestion. It may be helpful to show this safety data sheet to physician.
	Notes to physician	A specific antidote for exposure to this material is not known. Gastric lavage and/or the administration of activated charcoal can be considered. After decontamination, treatment should be directed at the control of symptoms and the clinical condition, paying special attention to respiratory symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1.	**Extinguishing media**	Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.
5.2.	**Special hazards arising from the substance or mixture**	The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as nitrogen oxides, hydrogen cyanide, hydrogen fluoride, hydrogen chloride, sulphur dioxide, carbon monoxide, carbon dioxide and various fluorinated and chlorinated organic compounds.
5.3.	**Advice for firefighters**	Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1.	**Personal precautions, protective equipment and emergency procedures**	It is recommended to have a predetermined plan for the handling of spills. Empty, sealable vessels for the collection of spills should be available In case of large spill (involving 1 tonne of the product or more): 1. use personal protection equipment; see section 8 2. call emergency telephone no.; see section 1 3. alert authorities. Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and rubber boots. Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area. Avoid and reduce formation of vapour or mist as much as possible.

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6.2. **Environmental precautions** .....

Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

6.3. **Methods and materials for containment and cleaning up**

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).

If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be absorbed onto an absorptive material such as universal binder, Fuller's earth or other absorbent clays. Collect the contaminated absorbent in suitable containers. Clean area with detergent and much water. Absorb wash liquid with absorbent and transfer to suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and transferred to suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

6.4. **Reference to other sections** .....

See subsection 8.2. for personal protection.
See section 13 for disposal.

SECTION 7: HANDLING AND STORAGE

7.1. **Precautions for safe handling** .....

In an industrial environment it is important to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

For its use as a pesticide, first look for precautions and personal protection measures on the officially approved label on the packaging or for other official guidance or policy in force. If these are lacking, see section 8.

Keep all unprotected persons and children away from working area.

Avoid contact with eyes, skin or clothing. Avoid breathing vapour or mist.

Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and footwear. Take a shower, using water and soap. Wear only clean clothes when leaving job.

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Wash protective clothing and protective equipment with water and soap after each use.

Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

7.2. **Conditions for safe storage, including any incompatibilities**

The product is stable under normal conditions of warehouse storage. Storage temperature: 5 - 30°C. Protect from frost and extreme heat.

Store in tightly closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading "POISON" is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

7.3. **Specific end use(s)** .....

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. **Control parameters**

Personal exposure limits .....

To our knowledge not established for the active ingredients in this product. An internal PEL of 1.5 mg/m^3 (8-hr TWA) is recommended for azoxystrobin by the manufacturer.

		Year	
Propane-1,2-diol	AIHA (USA) WEEL	2015	10 mg/m^3
	MAK (Germany)	2014	Cannot be established at present
	HSE (UK) WEL	2011	8-hr TWA 150 ppm (474 mg/m^3), total (vapour and particulates) 10 mg/m^3 (particulates)

However, other personal exposure limits defined by local regulations may exist and must be observed.

Azoxystrobin

DNEL, systemic ..... 0.2 mg/kg bw/day

PNEC, aquatic ..... 0.88 µg/l

Epoxiconazole

DNEL, systemic ..... 0.008 mg/kg bw/day

PNEC, aquatic ..... 0.2 µg/l

8.2. **Exposure controls** .....

Persons working with this material for a longer period should be careful to minimise exposure. See section 11. Pregnant women must

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avoid working with the product altogether, because the substance may have an effect on the unborn child.

When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening.

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution, but can be recommended for spraying as well.

In cases of incidental high exposure, maximal personal protection may be necessary, such as respirator, face mask, chemical resistant coveralls.

Respiratory protection — In the event of an accidental discharge of the material, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.

Protective gloves ..... — Wear chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton. The breakthrough times of these materials for the product are unknown. Generally, however, the use of protective gloves will give only partial protection against dermal exposure. Small tears in the gloves and cross-contamination can easily occur. It is recommended to limit the work to be done manually and to change the gloves frequently. Be careful not to touch anything with contaminated gloves. Used gloves should be thrown out and not be reused.

Eye protection ..... — Wear safety glasses. It is recommended to have an emergency eye wash fountain immediately available in the work area when there is a potential for eye contact.

Other skin protection — Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Information on physical and chemical properties**

Appearance	Off-white to light yellow liquid
Odour	Characteristic

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Odour threshold	Not determined
pH	Undiluted: 4.7 1% dilution in water: 4.9
Melting point/freezing point	Not determined
Initial boiling point and boiling range	Not determined
Flash point	88°C (Setaflash closed cup)
Evaporation rate	Not determined
Flammability (solid/gas)	Not applicable (liquid)
Upper/lower flammability or explosive limits	Not determined
Vapour pressure	**Azoxystrobin** : 1.107×10^{-10} Pa at 20°C **Epoxiconazole** : $< 1.0 \times 10^{-5}$ Pa at 20°C
Vapour density	Not determined
Relative density	1.08
Solubility(ies)	**Azoxystrobin** : 6.7 mg/l at pH 7 in water low solubility in hexane, n-octanol moderate solubility in toluene, acetone high solubility in ethyl acetate, acetonitrile, Solubility of **epoxiconazole** at 20°C in: n-heptane 1.0 g/l ethyl acetate 110.0 g/l water 7 mg/l at pH 7
Partition coefficient n-octanol/water	**Azoxystrobin** : log K_{ow} = 2.5 at 20°C **Epoxiconazole** : log K_{ow} = 3.44
Autoignition temperature	364°C
Decomposition temperature	Not determined
Viscosity	1096 mPa.s at 20°C 1030 mPa.s at 40°C
Oxidising properties	Not oxidising

9.2. **Other information**

Miscibility	The product is miscible with water.

SECTION 10: STABILITY AND REACTIVITY

10.1.	**Reactivity**	To our knowledge, the product has no special reactivities.
10.2.	**Chemical stability**	The product is stable during normal handling and storage at ambient temperatures.
10.3.	**Possibility of hazardous reactions**	None known.
10.4.	**Conditions to avoid**	Heating of the product will evolve harmful and irritant vapours.
10.5.	**Incompatible materials**	None known.
10.6.	**Hazardous decomposition products**	See subsection 5.2.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1. **Information on toxicological effects**

* = Based on available data, the classification criteria are not met.

Product

Acute toxicity ..... The product is harmful if ingested. The inhalation toxicity of this product is very much dependent on the inhalability of the airborne particles. Since the active ingredient azoxystrobin is toxic by inhalation, this product may become hazardous when a finely divided mist is produced.

The following data have been measured on the product:

Route(s) of entry	- ingestion	LD_{50}, oral, rat: 500 mg/kg (method OECD 425)
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg (method OECD 402) *
	- inhalation	LC_{50}, inhalation, rat (male): > 4.68 mg/l/4 h (method OECD 403) *
		LC_{50}, inhalation, rat (female): 3.41 mg/l/4 h

Skin corrosion/irritation ..... Moderately irritating to skin (method OECD 404). *

Serious eye damage/irritation ..... Not irritating to eyes (method OECD 405). *

Respiratory or skin sensitisation ... Weakly allergenic by skin contact (method OECD 429).

Germ cell mutagenicity ..... The product contains no ingredients known to be mutagenic. *

Carcinogenicity ..... Epoxiconazole is a suspected carcinogen. However, according to EU criteria, the available evidence is not sufficient to make a satisfactory evaluation. Increased tumour incidences: in female rats, adrenal gland cortex and ovarian theca granulosa cells were observed at 1500 ppm (~100 mg/kg bw/d). In mice, liver cell tumours were observed at 500 - 1000 ppm (~100 - 200 mg/kg bw/d), dose levels that also resulted in significantly lower body weights (methods OECD 451 and 452).

Reproductive toxicity ..... Epoxiconazole has been found to have a negative effect on fertility and on offspring. The lowest NOAEL for maternal/parental, reproductive and developmental toxicity was 25 ppm or 2.3 mg/kg bw/day (methods OECD 414 and 416).

STOT – single exposure ..... To our knowledge, no specific effects have been observed after single exposure. *

STOT – repeated exposure ..... The following has been measured on the active ingredient epoxiconazole:
Target organ: liver
NOAEL: 7 - 8 mg/kg bw/day in a 90-day rat study (method OECD 408) based on altered clinical-chemical parameters and increased liver weight (method OECD 452). *

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Aspiration hazard		The product does not present an aspiration pneumonia hazard. *
Symptoms and effects, acute and delayed		Inhalation may result in difficulty breathing. Ingestion may cause diarrhoea, shortness of breath and loss of balance.

Azoxystrobin

Toxicokinetics, metabolism and distribution		After oral intake, azoxystrobin is rapidly absorbed with largest concentration found in liver and kidneys. It is extensively metabolised. It is rapidly excreted, within a few days. There is no evidence of accumulation.
Acute toxicity		Azoxystrobin is toxic by inhalation. It is not considered as harmful by skin contact or by ingestion. The acute toxicity is measured as:
Route(s) of entry	- ingestion	LD_{50}, oral, rat: > 5000 mg/kg (method OECD 401) *
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg (method OECD 402) *
	- inhalation	LC_{50}, inhalation, rat (male): 0.963 mg/l/4 h (method OECD 403)
		LC_{50}, inhalation, rat (female): 0.698 mg/l/4 h
Skin corrosion/irritation		Slightly irritating to skin (method OECD 404). *
Serious eye damage/irritation		Slightly irritating to eyes (method OECD 405). *
Respiratory or skin sensitisation ...		Not sensitising (method OECD 406). *

Epoxiconazole

Toxicokinetics, metabolism and distribution		Epoxiconazole is rapidly absorbed following oral intake. It is widely distributed in the body and extensively metabolised. It is rapidly excreted. There is no evidence for accumulation.
Acute toxicity		The substance is not considered as harmful by acute exposure. * The acute toxicity is measured as:
Route(s) of entry	- ingestion	LD_{50}, oral, rat: 5000 mg/kg (method OECD 401)
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg (method OECD 402)
	- inhalation	LC_{50}, inhalation, rat: > 5.08 mg/l/4 h (method OECD 403)
Skin corrosion/irritation		Not irritating to rabbit skin (method OECD 404). *
Serious eye damage/irritation		Mildly irritating to eyes (method OECD 405). *
Respiratory or skin sensitisation ...		Not a skin sensitizer (method OECD 406). *

Alcohols, C16-18, ethoxylated, propoxylated

Acute toxicity		The substance is not considered as harmful by single exposure. * The acute toxicity as measured on a similar substance is:
Route(s) of entry	- ingestion	LD_{50}, oral, rat: 3400 mg/kg

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	- skin	LD_{50}, dermal, rat: not available
	- inhalation	LC_{50}, inhalation, rat: not available
Skin corrosion/irritation		Not irritating to skin. *
Serious eye damage/irritation		Not irritating to eyes. *
Respiratory or skin sensitisation ...		Not sensitising (by analogy to similar substances). *

1,2-Benzisothiazol-3(2H)-one

Acute toxicity		The substance is harmful by ingestion.
Route(s) of entry	- ingestion	LD_{50}, oral, rat (male): 670 mg/kg LD_{50}, oral, rat (female): 784 mg/kg (method OPPTS 870.1100; measured on 73% solution)
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg * (method OPPTS 870.1200; measured on 73% solution)
	- inhalation	LC_{50}, inhalation, rat: not available
Skin corrosion/irritation		Slightly irritating to skin (method OPPTS 870.2500).
Serious eye damage/irritation		Severely irritating to eyes (method OPPTS 870.2400).
Respiratory or skin sensitisation ...		Moderate dermal sensitizer to guinea pigs (method OPPTS 870.2600). The substance appears to be significantly more sensitising to humans.

SECTION 12: ECOLOGICAL INFORMATION

12.1. **Toxicity** ..... The product is toxic to very toxic to fish, aquatic invertebrates and green algae. It is considered as less toxic to insects, birds and soil micro- and macroorganisms.

The toxicity of the product is measured as:

- Fish	Rainbow trout (*Oncorhynchus mykiss*)	96-h LC_{50}: 1.01 mg/l
- Invertebrates	Daphnids (*Daphnia magna*)	48-h EC_{50}: 0.90 mg/l
- Algae	Green algae (*Pseudokirchneriella subcapitata*) ..	96-h E_rC_{50}: 2.58 mg/l
- Plants	Duckweed (*Lemna gibba*)	7-day E_rC_{50}: 0.26 mg/l 7-day NOEC: 0.023 mg/l
- Earthworms	*Eisenia foetida*	14-day LC_{50}: > 1000 mg/kg soil
- Birds	Bobwhite quail (*Colinus virginianus*)	LD_{50}: > 2000 mg/kg
- Insects	Bees (*Apis mellifera*)	LD_{50}, contact: > 350 µg/bee LD_{50}, oral: > 419 µg/bee

12.2. **Persistence and degradability** .... **Azoxystrobin** does not meet the criteria for being readily biodegradable, but it is degraded in the environment. Degradation

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occurs both by photolysis and by microbiological degradation. Primary degradation half-lives vary with circumstances, but are usually a few weeks in aerobic soil and water.

Epoxiconazole is not readily biodegradable. Primary degradation half-lives vary from a few months to some years in aerobic soil depending on circumstances. It can accumulate in soil if applied in consecutive years.

The product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

12.3. **Bioaccumulative potential** .....

See section 9 for octanol-water partition coefficients.

Bioaccumulation of **azoxystrobin** is not expected.

Epoxiconazole has a low potential for bioaccumulation, but is excreted rapidly. BCF factor 59 - 70 at test concentration 1 - 5 µg/l (rainbow trout).

12.4. **Mobility in soil** .....

Under normal conditions **azoxystrobin** has low to moderate mobility in soil.

Epoxiconazole is of low mobility in soil. Absorption depends on soil type and other circumstances.

12.5. **Results of PBT and vPvB assessment** .....

None of the ingredients meets the criteria for being PBT or vPvB.

12.6. **Other adverse effects** .....

Other relevant hazardous effects in the environment are not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods** .....

Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.

Disposal of waste and packagings must always be in accordance with all applicable local regulations.

Disposal of product .....

According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not feasible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Disposal of packaging .....

It is recommended to consider possible ways of disposal in the

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following order:
1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

SECTION 14: TRANSPORT INFORMATION

ADR/RID/IMDG/IATA/ICAO classification

14.1.	**UN number**	3082
14.2.	**UN proper shipping name**	Environmentally hazardous substance, liquid, n.o.s. (azoxystrobin)
14.3.	**Transport hazard class(es)**	9
14.4.	**Packing group**	III
14.5.	**Environmental hazards**	Marine pollutant
14.6.	**Special precautions for user**	Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment.
14.7.	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code**	The product is not transported in bulk by ship.

SECTION 15: REGULATORY INFORMATION

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

Seveso category (Dir. 2012/18/EU): toxic
Second Seveso category: dangerous for the environment.

The employer shall assess any risks to the safety or health and any possible effect on the pregnancies or breastfeeding of workers and decide what measures should be taken (Dir. 92/85/EEC).

Young people under the age of 18 are not allowed to work with the product.

All ingredients in this product are covered by EU chemical legislation.

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15.2. **Chemical safety assessment** ..... A chemical safety assessment is not required to be included for this product.

♣ SECTION 16: OTHER INFORMATION

Relevant changes in the safety data sheet ..... Minor corrections only.

List of abbreviations .....

AIHA	American Industrial Hygiene Association
CAS	Chemical Abstracts Service
Dir.	Directive
DNEL	Derived No Effect Level
EC	European Community
EC_{50}	50% Effect Concentration
E_rC_{50}	50% Effect Concentration based on growth
EINECS	European INventory of Existing Commercial Chemical Substances
ELINCS	European LIst of Notified Chemical Substances
GHS	Globally Harmonized classification and labelling System of chemicals, Fifth revised edition 2013
HSE	Health & Safety Executive, UK
IBC	International Bulk Chemical code
IC_{50}	50% Inhibition Concentration
ISO	International Organisation for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC_{50}	50% Lethal Concentration
LD_{50}	50% Lethal Dose
LOEL	Lowest Observed Effect Level
MAK	Maximale Arbeitspaltz-Konzentration
MARPOL	Set of rules from the International Maritime Organisation (IMO) for prevention of sea pollution
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
n.o.s.	Not otherwise specified
OECD	Organisation for Economic Cooperation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative, Toxic
PEL	Personal Exposure Limit
PNEC	Predicted No Effect Concentration
Reg.	Registration or Regulation
SC	Suspension Concentrate
STOT	Specific Target Organ Toxicity
TWA	Time Weighed Average
vPvB	very Persistent, very Bioaccumulative
WEEL	Workplace Environmental Exposure Level
WEL	Workplace Exposure Limit
WHO	World Health Organisation

References ..... Data measured on the product are unpublished company data. Data on

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ingredients are available from published literature and can be found several places.

Method for classification .....

Acute oral toxicity: test data
Acute inhalation toxicity: test data
Sensitisation – skin: test data
Carcinogenicity: calculation rules
Toxic to reproduction: calculation rules
Hazards to the aquatic environment: test data

Used hazard statements .....

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H360Df	May damage the unborn child and suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions of use.

Advice on training .....

This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the product vary and situations unforeseen by FMC Corporation may exist. The user has to check the validity of the information under local circumstances.

Prepared by: FMC Corporation / Cheminova A/S / GHB