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CVR No. DK 12 76 00 43

SAFETY DATA SHEET

FLUTRIAFOL 94 g/l + CARBENDAZIM 150 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** .....
FLUTRIAFOL 94 g/l + CARBENDAZIM 150 g/l SC
Contains carbendazim

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 (ProPharma)
All other countries: +1 651 / 632-6793 (ProPharma - Collect)

SECTION 2: HAZARDS IDENTIFICATION

2.1. **Classification of the substance or mixture**
Eye irritation: Category 2 (H319)
Germ cell mutagenicity: Category 1B (H340)

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Toxic to reproduction: Category 1B (H360FD)
Hazards to the aquatic environment, acute: Category 1 (H400)
chronic: Category 1 (H410)

WHO classification ..... Class U (Unlikely to present acute hazard in normal use)

Health hazards ..... Animal tests have shown that carbendazim can cause chromosomal changes, reduced fertility, malformations of offspring and can cause liver tumours in mouse strains.

The acute toxicity of the product is low, but it may be slightly harmful by ingestion, by skin contact and by inhalation. The product is irritating to eyes and may be irritating to skin.

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

2.2. **Label elements**

According to EU Reg. 1272/2008 as amended

Product identifier ..... Flutriafol 94 g/l + Carbendazim 150 g/l SC
Contains carbendazim

Hazard pictograms (GHS07, GHS08, GHS09)

Signal word ..... Danger

Hazard statements
H319 ..... Causes serious eye irritation.
H340 ..... May cause genetic defects.
H360FD ..... May damage fertility and the unborn child.
H410 ..... Very toxic to aquatic life with long lasting effects.

Supplementary hazard statements
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.

Precautionary statements
P202 ..... Do not handle until all safety precautions have been read and understood.
P264 ..... Wash hands thoroughly after handling.
P280 ..... Wear eye protection.
P305+P351+P338 ..... IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 ..... If eye irritation persists: Get medical advice/attention.
P501 ..... Dispose of contents/container as hazardous waste.

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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

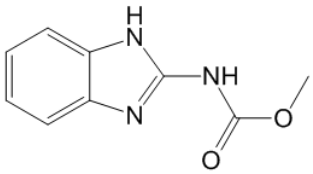
3.1. **Substances** ..... The product is a mixture, not a substance

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

Active ingredients

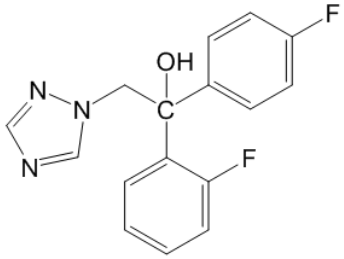
Carbendazim ..... Content: 14% by weight
CAS name ..... Carbamic acid, 1H-benzimidazol-2-yl-, methyl ester
CAS no. 10605-21-7
IUPAC name ..... Methyl benzimidazol-2-ylcarbamate
ISO name/EU name ..... Carbendazim
EC no. (EINECS no.) 234-232-0
EU index no. 613-048-00-8
Classification of the ingredient ..... Germ cell mutagenicity: Category 1B (H340)
Toxic to reproduction: Category 1B (H360FD)
Hazards to the aquatic environment, acute: Category 1 (H400)
chronic: Category 1 (H410)

Structural formula .....



Flutriafol ..... Content: 9% by weight
CAS name ..... 1H-1,2,4-Triazole-1-ethanol, α-(2-fluorophenyl)-α-(4-fluorophenyl)-
CAS no. 76674-21-0
IUPAC name ..... (RS)-2,4′-Difluoro-α-(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol
ISO name ..... Flutriafol
EC no. (EINECS no.) ..... None
EU index no. ..... None
Classification of the ingredient ..... Acute oral toxicity: Category 4 (H302)
Hazards to the aquatic environment, chronic: Category 2 (H411)

Structural formula .....



Reportable ingredients	Content (% w/w)	CAS no.	EC no. (EINECS no.)	Classification
Alcohols, C13-15, ethoxylated Reg. no. 02-195485515-35	7	64425-86-1	None	Acute Tox. 1 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400)

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Propane-1,2-diol Reg. no. 01-2119456809-23	6	57-55-6	200-338-0	None
1,2-Benzisothiazol-3(2H)-one	0.005	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, but 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 remove contaminated clothing and footwear. Flush skin with much water. Wash with water and soap. See physician if irritation 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. Get medical attention if irritation persists.

Ingestion ..... Let the exposed person rinse mouth and drink several glasses of water or milk, but do not induce vomiting. If vomiting does occur, let him/her rinse mouth and drink several glasses of fluid again. Get medical attention immediately.

4.2. **Most important symptoms and effects, both acute and delayed** — In animal tests at high dosage: changes of behaviour, decreased activity, lacrimation and incontinence.

4.3. **Indication of any immediate medical attention and special treatment needed** — Immediate medical attention is required in case of ingestion or eye contact.

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. If swallowed, gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment of exposure is as for a general chemical and should be directed at the control of symptoms and the clinical condition.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. **Extinguishing media** ..... Dry chemical or carbon dioxide for small fires, water spray or foam

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for large fires. Avoid heavy hose streams.

5.2. **Special hazards arising from the substance or mixture**

The essential breakdown products are volatile, toxic, malodorous, irritant and inflammable compounds such as hydrogen fluoride, nitrogen oxides, carbon monoxide, carbon dioxide, sulphur dioxide and various fluorinated 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 10 tonnes 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. Spills should be removed as soon as possible. Keep unprotected persons away from the spill area. Avoid and reduce formation of vapour or mist as much as possible.

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).

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

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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** ..... Pregnant women should not work with this product. See section 11.

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.

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

Keep unprotected persons and children away from working area.

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** Storage at temperatures not exceeding 25°C is recommended. Protect from frost.

Keep 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.

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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. The following values for carbendazim and flutriafol are recommendations by the manufacturer.

		Year	
Carbendazim	Internal value	2015	TWA 0.01 mg/m^3
Flutriafol	Internal value	2015	TWA 1.5 mg/m^3
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.

Carbendazim

DNEL ..... 0.02 mg/kg bw/day
PNEC, aquatic environment ..... 30 ng/l

Flutriafol

DNEL ..... 0.05 mg/kg bw/day
PNEC, aquatic environment ..... 6.2 µg/l

Propane-1,2-diol

DNEL, inhalation, systemic ..... 183 mg/m^3
DNEL, inhalation, local ..... 10 mg/m^3
PNEC, fresh water ..... 260 mg/l
PNEC, marine water 26 mg/l

8.2. **Exposure controls** ..... 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 use solution, but can be recommended for final use as well.

In cases of incidental high exposure, maximal personal protection

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equipment may be necessary, such as respirator, face mask, chemical resistant coveralls.

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

Protective gloves ..... Wear long chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. 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 immediately if there is a suspicion of contamination. Be careful not to touch anything with contaminated gloves. Used gloves should be thrown out and not be reused.

To avoid spreading of chemicals, it may be useful to have an appointment for the workplace where gloves may be worn and especially where gloves may not be worn.

Eye protection ..... Wear safety glasses or face shield. 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/brown liquid (suspension in water)
Odour	Characteristic odour between fish- and glue-like
Odour threshold	Not determined
pH	7.4 - 7.7
Melting point/freezing point	< 0°C
Initial boiling point and boiling range	> 100°C
Flash point	> 95°C
Evaporation rate	Not determined
Flammability (solid/gas)	Not applicable (liquid)
Upper/lower flammability or explosive limits	Not determined

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Vapour pressure	**Carbendazim**	: 9.3 x 10^{-5} Pa at 20°C
	Flutriafol	: 7.1 x 10^{-9} Pa at 20°C
Vapour density	Not determined	
Relative density	Not determined	
	Density: 1.09 g/ml	
Solubility(ies)	Solubility of **carbendazim** at 24°C in:	
	hexane	0.5 mg/l
	ethanol	300 mg/l
	water	8 mg/l at 25°C and pH 7
	Solubility of **flutriafol** at 21°C in:	
	acetone	114 - 133 g/l
	n-heptane	< 10 g/l
	water	0.13 g/l
Partition coefficient n-octanol/water	**Carbendazim**	: log K_{ow} = 1.49
	Flutriafol	: log K_{ow} = 2.29
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Viscosity	400 - 600 mPa.s	
Explosive properties.....	Not explosive	
Oxidising properties	Not oxidising	

9.2. **Other information**

Miscibility ..... The product can be dispersed in 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.

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 not considered as harmful by ingestion, skin contact or by inhalation. * The acute toxicity of the product is measured as:

Route(s) of entry	- ingestion	LD_{50}, oral, rat (male): 5390 mg/kg
		LD_{50}, oral, rat (female): 4411 mg/kg
	- skin	LD_{50}, dermal, rat: > 2200 mg/kg

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	- inhalation	LC_{50}, inhalation, rat: not available
Skin corrosion/irritation		Slightly irritating to skin. *
Serious eye damage/irritation		Moderately irritating to eyes.
Respiratory or skin sensitisation ...		The product is not expected to be an allergic skin sensitizer. *
Germ cell mutagenicity		Carbendazim caused numerous chromosome aberrations, but is not a heritable gene mutagen. Carbendazim did not cause gene mutations or structural chromosome aberrations in germ cell tests. Carbendazim was, however, positive in assays for numerical chromosome aberrations (methods OECD 471 and 474).
Carcinogenicity		Carbendazim caused liver tumours in certain mouse strains (method similar to OECD 451), but not in rats and dogs (methods similar to OECD 453 and 452). *
Reproductive toxicity		Carbendazim caused genotoxic effects and reduced fertility in animal tests at dose levels > 50 mg/kg bw/day (method similar to OECD 416). Carbendazim caused malformations and anomalies of offspring at dose levels > 10 mg/kg bw/day in animal tests (method OECD 414).
STOT – single exposure		To our knowledge, no specific effects have been observed after single exposure. *
STOT – repeated exposure		The following is found for the active ingredient carbendazim: Target organ: liver NOEL, oral: 106 - 116 mg/kg bw/day in a 90-day rat study (method OECD 408) LOEL, oral: 35 - 39 mg/kg bw/day. *
Aspiration hazard		The product does not present an aspiration hazard. *
Symptoms and effects, acute and delayed		When a similar product was fed to laboratory animals at high doses, the main symptoms were non-specific symptoms of toxicity, such as changes of behaviour, decreased activity, lacrimation and incontinence.

Carbendazim

Toxicokinetics, metabolism and distribution		After oral intake, carbendazim is rapidly absorbed and rapidly excreted as well. It is widely distributed in the body, but primarily to the liver and kidneys. Metabolism is very limited. There is no evidence of accumulation.
Acute toxicity		Carbendazim is not harmful by single exposure. * The acute toxicity is measured as:
Route(s) of entry	- ingestion	LD_{50}, oral, rat: > 6400 mg/kg (method similar to OECD 401)
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg (method similar to OECD 402)

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	- inhalation	LC_{50}, inhalation, rat: > 5.8 mg/l/4 h (method OECD 403)
Skin corrosion/irritation		Not irritating to skin (method OECD 404). *
Serious eye damage/irritation		Slightly irritating to eyes (method OECD 405). *
Respiratory or skin sensitisation ...		Study results are mixed, but the weight of evidence is that carbendazim is not a skin sensitizer (method OECD 406). *

Flutriafol

Toxicokinetics, metabolism and distribution		Flutriafol is rapidly absorbed after oral intake. It is widely distributed in the body, but it preferably binds to red blood cells. Metabolism is almost complete. It is rapidly excreted. There is no evidence of accumulation.
Acute toxicity		The substance is harmful by ingestion. It is less harmful by skin contact and by inhalation. The acute toxicity is measured as:
Route(s) of entry	- ingestion	LD_{50}, oral, rat: 300 - 2000 mg/kg (method OECD 423)
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg (method OECD 402) *
	- inhalation	LC_{50}, inhalation, rat: > 5.2 mg/l/4 h (method OECD 403) *
Skin corrosion/irritation		Not irritating to skin (method OECD 404). *
Serious eye damage/irritation		Not irritating to eyes (method OECD 405). *
Respiratory or skin sensitisation ...		Not sensitising (method OECD 429). *

Alcohols, C13-15, ethoxylated

Acute toxicity		The product is not considered as harmful by inhalation, ingestion or skin contact. C.c.n.m. The acute toxicity is measured as:
Route(s) of entry	- ingestion	LD_{50}, oral, rat: > 2000 mg/kg
	- skin	LD_{50}, dermal, rat: not available
	- inhalation	LC_{50}, inhalation, rat: not available
Skin corrosion/irritation		The product is irritating to skin (method OECD 404).
Serious eye damage/irritation		The product is irritating to eyes (method OECD 405).

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)

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- 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 very toxic to aquatic invertebrates and toxic to fish. It is harmful to algae, bees and earthworms. It is not considered as harmful to birds and soil microorganisms.

The following has been measured on a similar but more concentrated product:

- Fish — Rainbow trout (*Salmo gairdneri*) ..... 96-h LC_{50}: 4.40 mg/l
- Invertebrates — Daphnids (*Daphnia magna*) ..... 48-h EC_{50}: 0.46 mg/l
- Algae — Green algae (*Selenastrum capricornutum*) ..... 72-h IC_{50}: 26.9 mg/l

12.2. **Persistence and degradability** ..... **Carbendazim** degrades only very slowly in the environment.

Flutriafol is not readily degradable. Primary degradation half-lives vary with circumstances, but are usually over 1 year in soil and water.

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

12.3. **Bioaccumulative potential** ..... See section 9 for octanol-water partition coefficient.

Bioaccumulation of **carbendazim** is not expected.

Flutriafol is not expected to bioaccumulate either. The bioaccumulation factor of flutriafol is measured as 7 for whole fish (rainbow trout).

12.4. **Mobility in soil** ..... **Carbendazim** absorbs strongly to soil particles and is therefore not mobile, but may accumulate if used repeatedly.

Flutriafol has moderate mobility in soil. Absorption depends on soil pH and organic matter content.

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.

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♣ 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 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. (carbendazim and flutriafol)

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.

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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 in Annex I to 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 are covered by EU chemical legislation.

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
EINECS	European INventory of Existing Commercial 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
NOEL	No Observed Effect Level
n.o.s.	Not otherwise specified
OECD	Organisation for Economic Cooperation and Development

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OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative, Toxic
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 this and a similar product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

Method for classification ..... Eye irritation: test data
Germ cell mutagenicity: calculation method
Toxic to reproduction: calculation method
Hazards to the aquatic environment, acute: read-across
chronic: calculation method

Used hazard statements .....

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H360FD	May damage fertility and the unborn child.
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