According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name DELTIC PRO™

Other means of identification

Product code 50001848

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub- :

stance/Mixture

Fungicide

Recommended restrictions

on use

Use as recommended by the label.

1.3 Details of the supplier of the safety data sheet

<u>Supplier Address</u> FMC Agro Limited

Rectors Lane, Pentre

Flintshire CH5 2DH United Kingdom

Telephone: + 44 1244 537370 E-mail address: SDS-Info@fmc.com .

1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call: England and Wales: 44-870-8200418 (CHEMTREC)

Medical emergency: England and Wales: 111 Scotland: 84 54 24 2424

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Skin sensitisation, Sub-category 1B H317: May cause an allergic skin reaction.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Reproductive toxicity, Category 2 H361d: Suspected of damaging the unborn child.

Short-term (acute) aquatic hazard, Cate-

gory 1

H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Cat-

egory 1

H410: Very toxic to aquatic life with long lasting

effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :







Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.

H361d Suspected of damaging the unborn child.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P261 Avoid breathing mist or vapours.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container as hazardous waste in

accordance with local regulations.

Hazardous components which must be listed on the label:

fluazinam (ISO)

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

Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instruc-

tions for use.

For special phrases (SP) and safety intervals, consult the label.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
fluazinam (ISO)	79622-59-6 612-287-00-5	Acute Tox. 4; H332 Eye Dam. 1; H318 Skin Sens. 1A; H317 Repr. 2; H361d Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 30 - < 50
Residues (petroleum), catalytic re- former fractionator, sulfonated, poly- mers with formaldehyde, sodium salts	68425-94-5	Eye Irrit. 2; H319 Aquatic Chronic 3; H412	>= 1 - < 2.5
Alcohols, C13-15, branched and linear, ethoxylated	157627-86-6	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 1 - < 2.5
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.0025 - < 0.025

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version 1.1	Revision Date: 30.06.2025	SDS Number: 50001848	Date of last issue: - Date of first issue: 01.08.2020
			M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 ————————————————————————————————————

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.

If inhaled : Remove to fresh air.

If unconscious, place in recovery position and seek medical

advice.

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 ambu-

lance.

In case of skin contact : If on clothes, remove clothes.

If on skin, rinse well with water,

Wash off with soap and plenty of water.

Get medical attention immediately if irritation develops and

persists.

Wash contaminated clothing before re-use.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tis-

sue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Exposure to skin may result in mild symptoms include itching,

hives or rash, and skin redness. More severe symptoms include sneezing, itchy watery eyes, and difficulty breathing.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

Immediate medical attention is required in case of ingestion.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry chemical, CO2, water spray or regular foam.

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Unsuitable extinguishing

media

Do not spread spilled material with high-pressure water

streams.

High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion prod-

ucts

Fire may produce irritating, corrosive and/or toxic gases.

Halogenated compounds Nitrogen oxides (NOx)

Carbon oxides Ammonia

5.3 Advice for firefighters

Special protective equipment:

for firefighters

Firefighters should wear protective clothing and self-contained

breathing apparatus.

Specific extinguishing meth-

ods

Remove undamaged containers from fire area if it is safe to do

SO.

Use a water spray to cool fully closed containers.

Further information : Use extinguishing measures that are appropriate to local cir-

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

cumstances and the surrounding environment.

Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.

Do not touch or walk through the spilled material.

If it can be safely done, stop the leak. Use personal protective equipment.

Never return spills in original containers for re-use.

Mark the contaminated area with signs and prevent access to

unauthorized personnel.

Only qualified personnel equipped with suitable protective

equipment may intervene.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Never return spills in original containers for re-use.

Collect as much of the spill as possible with a suitable absor-

bent material.

Pick up and transfer to properly labelled containers. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.

Do not breathe vapours/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Provide sufficient air exchange and/or exhaust in work rooms.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

Advice on protection against

fire and explosion

Normal measures for preventive fire protection.

Hygiene measures : Avoid contact with skin, eyes and clothing. Do not inhale aer-

osol. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing and gloves, includ-

ing the inside, before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions

The product is stable under normal conditions of warehouse storage. Protect from heat and direct sunlight. Store in 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.

Recommended storage tem-

perature

5 - 30 °C

Further information on stor-

age stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Registered pesticide to be used in accordance with a label

approved by country-specific regulatory authorities.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL)

Substance name	End Use	Exposure routes	Potential health effects	Value
1,2-benzisothiazol- 3(2H)-one	Workers	Inhalation	Long-term systemic effects	6.81 mg/m3
	Workers	Dermal	Long-term systemic effects	0.966 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1.2 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.345 mg/kg

Predicted No Effect Concentration (PNEC)

Substance name	Environmental Compartment	Value
urea	Fresh water	0.47 mg/l
	Marine water	0.047 mg/l
1,2-benzisothiazol-3(2H)-one	Fresh water	0.00403 mg/l
	Marine water	0.000403 mg/l
	Sewage treatment plant	1.03 mg/l
	Fresh water sediment	0.0499 mg/l
	Marine sediment	0.00499 mg/l

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or

aerosols.

Hand protection

Material : Wear chemical resistant gloves, such as barrier laminate,

butyl rubber or nitrile rubber.

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Respiratory protection : In case of mist, spray or aerosol exposure wear suitable per-

sonal respiratory protection and protective suit.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version **Revision Date:** SDS Number: Date of last issue: -

30.06.2025 50001848 Date of first issue: 01.08.2020 1.1

Protective measures Plan first aid action before beginning work with this product.

Always have on hand a first-aid kit, together with proper in-

structions.

Wear suitable protective equipment. When using do not eat, drink or smoke.

In the context of professional plant protection use as recommended, the end user must refer to the label and the instruc-

tions for use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

liquid Physical state

Colour light yellow, yellowish-brown, beige

Odour odourless, aromatic Odour Threshold No data available

7.5 - 8.3Hq

Concentration: 1 %

Melting point/ range not determined

Boiling point/boiling range

No data available

Flash point > 103 °C

Method: Pensky-Martens closed cup - PMCC

Evaporation rate Upper explosion limit / Upper

flammability limit

No data available not determined

Lower explosion limit / Lower

flammability limit

not determined

Vapour pressure 0.0011 Pa (20 °C)

Relative vapour density not determined Relative density 1.28 (20 °C) Density 1.28 g/cm3 (20 °C)

Solubility(ies)

Water solubility No data available

Partition coefficient: n-Not available for this mixture.

octanol/water

Auto-ignition temperature No data available Decomposition temperature not determined

Viscosity

Viscosity, dynamic 15.5 mPa.s (20 °C)

Viscosity, kinematic 1094 - 1406 mm2/s

Explosive properties Not explosive

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Oxidizing properties : Non-oxidizing

9.2 Other information

Flammability (liquids) : The product may be combustible.

Molecular weight : Not applicable
Particle size : Not applicable
Particle Size Distribution : Not applicable
Self-ignition : > 400 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : Avoid extreme temperatures

Avoid formation of aerosol. Heat, flames and sparks.

Heating of the mixture may evolve harmful and irritant va-

pours.

10.5 Incompatible materials

Materials to avoid : Avoid strong acids, bases, and oxidizers

10.6 Hazardous decomposition products

Stable under recommended storage conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

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

Method: OECD Test Guideline 425

Symptoms: Diarrhoea

GLP: yes

Assessment: The component/mixture is minimally toxic after

single ingestion. Remarks: no mortality

10/28

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Acute inhalation toxicity : LC50 (Rat, male and female): > 3.56 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Symptoms: Breathing difficulties, piloerection, sneezing

GLP: yes

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: no mortality

Highest attainable concentration.

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

Method: OECD Test Guideline 402

Assessment: The component/mixture is minimally toxic after

single contact with skin. Remarks: no mortality

Components:

fluazinam (ISO):

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

Method: OECD Test Guideline 425

Symptoms: Diarrhoea

GLP: yes

Assessment: The component/mixture is minimally toxic after

single ingestion. Remarks: no mortality

Acute inhalation toxicity : LC50 (Rat, male): 1.32 - 2.13 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Symptoms: Fatality, Breathing difficulties, ataxia

GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Assessment: The component/mixture is minimally toxic after

single contact with skin. Remarks: no mortality

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Alcohols, C13-15, branched and linear, ethoxylated:

Acute oral toxicity : LD50 (Rat): 500 - 2,000 mg/kg

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

1,2-benzisothiazol-3(2H)-one:

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Skin corrosion/irritation

Product:

Species : Rabbit

Assessment : Not classified as irritant
Method : OECD Test Guideline 404

GLP : yes

Remarks : Minimal effects that do not meet the threshold for classifica-

tion.

Components:

fluazinam (ISO):

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

GLP : yes

Remarks : Minimal effects that do not meet the threshold for classifica-

tion.

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formalde-

hyde, sodium salts:

Remarks : No data available

Alcohols, C13-15, branched and linear, ethoxylated:

Result : No skin irritation

1,2-benzisothiazol-3(2H)-one:

Species : Rabbit Exposure time : 72 h

Method : OECD Test Guideline 404

Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Remarks : Minimal effects that do not meet the threshold for classifica-

tion.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Components:

fluazinam (ISO):

Species : Rabbit

Assessment : Irritating to eyes.

Method : OECD Test Guideline 405

GLP : yes

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formalde-

hyde, sodium salts:

Result : Eye irritation

Alcohols, C13-15, branched and linear, ethoxylated:

Result : Irreversible effects on the eye

1,2-benzisothiazol-3(2H)-one:

Species : Bovine cornea

Method : OECD Test Guideline 437

Result : No eye irritation

Species : Rabbit

Method : EPA OPP 81-4

Result : Irreversible effects on the eye

Respiratory or skin sensitisation

Product:

Test Type : Local lymph node assay (LLNA)

Assessment : The product is a skin sensitiser, sub-category 1B.

Method : OECD Test Guideline 429
Result : Causes skin sensitization.

GLP : yes

Components:

fluazinam (ISO):

Test Type : Local lymph node assay (LLNA)

Exposure routes : Skin contact Species : Mouse

Assessment : The product is a skin sensitiser, sub-category 1A.

Method : OECD Test Guideline 429

Result : May cause sensitisation by skin contact.

GLP : yes

1,2-benzisothiazol-3(2H)-one:

Test Type : Maximisation Test Species : Guinea pig

13/28

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Method : OECD Test Guideline 406

Result : May cause sensitisation by skin contact.

Species : Guinea pig Method : FIFRA 81.06

Result : May cause sensitisation by skin contact.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse Result: negative

Components:

fluazinam (ISO):

Genotoxicity in vitro : Test Type: Ames test

Metabolic activation: with and without metabolic activation

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse Result: negative

Germ cell mutagenicity- As-

sessment

No genotoxic potential

1,2-benzisothiazol-3(2H)-one:

Genotoxicity in vitro : Test Type: gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: positive

Genotoxicity in vivo : Test Type: unscheduled DNA synthesis assay

Species: Rat (male) Cell type: Liver cells

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Application Route: Ingestion

Exposure time: 4 h

Method: OECD Test Guideline 486

Result: negative

Test Type: Micronucleus test

Species: Mouse Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

Germ cell mutagenicity- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

Carcinogenicity

Components:

fluazinam (ISO):

Carcinogenicity - Assess-

ment

Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

Product:

Reproductive toxicity - As-

sessment

Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

Components:

fluazinam (ISO):

Effects on foetal develop-

ment

Species: Rat

Symptoms: Fetal effects, placental abnormalities, fused or incompletely ossified sternebrae, abnormalities of the head bones, not developed renal papillae and distended ureter Result: Embryotoxic effects and adverse effects on the off-

spring were detected.

Species: Rat

Symptoms: Fetal effects, Skeletal and visceral variations Result: Embryotoxic effects and adverse effects on the off-

spring were detected.

Reproductive toxicity - As-

sessment

Animal testing did not show any effects on fertility., Some evidence of adverse effects on development, based on animal

experiments.

1,2-benzisothiazol-3(2H)-one:

Effects on fertility : Species: Rat, male

Application Route: Ingestion

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

General Toxicity - Parent: NOAEL: 18.5 mg/kg body weight

General Toxicity F1: NOAEL: 48 mg/kg body weight

Fertility: NOAEL: 112 mg/kg bw/day

Symptoms: No effects on reproduction parameters

Method: OPPTS 870.3800

Result: negative

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

STOT - single exposure

Components:

fluazinam (ISO):

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

STOT - repeated exposure

Components:

1,2-benzisothiazol-3(2H)-one:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

fluazinam (ISO):

Species : Rat

LOAEL : 41 mg/kg, 500 ppm

Application Route : Ingestion Exposure time : 90 days Target Organs : Liver

Symptoms : Reduced body weight, increased liver weight

1,2-benzisothiazol-3(2H)-one:

Species : Rat, male and female

NOAEL : 15 mg/kg Application Route : Ingestion Exposure time : 28 d

Method : OECD Test Guideline 407

Symptoms : Irritation

Species : Rat, male and female

NOAEL : 69 mg/kg
Application Route : Ingestion
Exposure time : 90 d

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Symptoms : Irritation, Reduced body weight

Aspiration toxicity

Components:

fluazinam (ISO):

The substance does not have properties associated with aspiration hazard potential.

Experience with human exposure

Components:

fluazinam (ISO):

Skin contact : Symptoms: irritant effects, sensitising effects

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.11 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.23 mg/l

Exposure time: 48 h

EC50 (Daphnia similis (water flea)): 179.09 mg/l

Exposure time: 48 h

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): 0.13 mg/l

Exposure time: 96 h

ErC50 (Lemna gibba (duckweed)): 0.57 mg/l

Exposure time: 7 d

NOEC (Lemna gibba (duckweed)): 0.094 mg/l

Exposure time: 7 d

EC50 (Selenastrum capricornutum (green algae)): > 0.2 mg/l

Exposure time: 96 h

Toxicity to soil dwelling or-

ganisms

LC50: > 1,000 mg/kg

Exposure time: 14 d

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organ-

isms

LD50: > 100 µg/bee

Exposure time: 48 h

End point: Acute oral toxicity

17 / 28

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Species: Apis mellifera (bees)

LD50: > 100 µg/bee Exposure time: 48 h

End point: Acute contact toxicity Species: Apis mellifera (bees)

LD50: > 2,000 mg/kg

Species: Coturnix japonica (Japanese quail)

LD50: > 4.190 mg/kg

Species: Anas platyrhynchos (Mallard duck)

LD50: > 1.782 mg/kg

Species: Colinus virginianus (Bobwhite quail)

Components:

fluazinam (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.11 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.19 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

IC50 (Selenastrum capricornutum (green algae)): > 0.2 mg/l

Exposure time: 96 h

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to microorganisms : EC50 (activated sludge): 75 mg/l

Exposure time: 3 h

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.012 mg/l

Exposure time: 28 d

Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOEC: < 0.0125 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

10

Toxicity to soil dwelling or-

ganisms

LC50: > 1,000 mg/kg Exposure time: 28 d

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organ-

isms

LD50: > 4,190 mg/kg

Species: Anas platyrhynchos (Mallard duck)

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

LD50: 1,782 mg/kg

Species: Colinus virginianus (Bobwhite quail)

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts:

Toxicity to fish : LC50 (Zebra fish): > 10 - 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

EC10 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

EC10: > 10 - 100 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

Alcohols, C13-15, branched and linear, ethoxylated:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1 - 10 mg/l

Exposure time: 48 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

: EC50 (Scenedesmus subspicatus): > 1 - 10 mg/l

Exposure time: 72 h

Toxicity to daphnia and other : aquatic invertebrates (Chron-

aqualic inverte

NOEC: > 0.1 - 1 mg/l

ic toxicity)

1,2-benzisothiazol-3(2H)-one:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): 16.7

19/28

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

mg/l

Exposure time: 96 h Test Type: static test

LC50 (Oncorhynchus mykiss (rainbow trout)): 2.15 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 2.9 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 0.070

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.04

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox-

icity)

1

Toxicity to microorganisms : EC50 (activated sludge): 24 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

EC50 (activated sludge): 12.8 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

M-Factor (Chronic aquatic

toxicity)

: 1

12.2 Persistence and degradability

Product:

Biodegradability : Result: Not biodegradable

Components:

fluazinam (ISO):

Biodegradability : Result: Not readily biodegradable.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version **Revision Date:** SDS Number: Date of last issue: -

30.06.2025 50001848 Date of first issue: 01.08.2020 1.1

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formalde-

hyde, sodium salts:

Biodegradability Result: Not readily biodegradable.

Remarks: Based on data from similar materials

Alcohols, C13-15, branched and linear, ethoxylated:

Biodegradability Result: Readily biodegradable.

1,2-benzisothiazol-3(2H)-one:

Result: rapidly biodegradable Biodegradability

Method: OECD Test Guideline 301C

12.3 Bioaccumulative potential

Components:

fluazinam (ISO):

Bioaccumulation Species: Lepomis macrochirus (Bluegill sunfish)

> Bioconcentration factor (BCF): 500 - 800 Remarks: Low potential for bioaccumulation

Partition coefficient: n-

log Pow: 4.67 (21 °C) pH: 7

octanol/water

log Pow: 3.34 (22 °C)

pH: 9

Alcohols, C13-15, branched and linear, ethoxylated:

Bioaccumulation Remarks: Bioaccumulation is unlikely.

1,2-benzisothiazol-3(2H)-one:

Bioaccumulation Species: Lepomis macrochirus (Bluegill sunfish)

Exposure time: 56 d

Bioconcentration factor (BCF): 6.62 Method: OECD Test Guideline 305

Remarks: Substance is not persistent, bioaccumulative, and

toxic (PBT).

Partition coefficient: n-

log Pow: 0.7 (20 °C) pH: 7

octanol/water

log Pow: 0.99 (20 °C)

pH: 5

12.4 Mobility in soil

Product:

Distribution among environ-Remarks: immobile

21 / 28

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

mental compartments

Components:

fluazinam (ISO):

Distribution among environmental compartments

Remarks: Low mobility in soil

1,2-benzisothiazol-3(2H)-one:

Distribution among environmental compartments

Koc: 9.33 ml/g, log Koc: 0.97 Method: OECD Test Guideline 121 Remarks: Highly mobile in soils

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

12.6 Other adverse effects

Product:

Endocrine disrupting poten-

tial

This substance/mixture does not contain components considered to have endocrine disrupting properties for environment

according to UK REACH Article 57(f).

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Triple rinse containers.

Do not re-use empty containers.

Packaging that is not properly emptied must be disposed of as

the unused product.

Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

SECTION 14: Transport information

14.1 UN number

ADN : UN 3082
ADR : UN 3082
RID : UN 3082
IMDG : UN 3082
IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (Fluazinam)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (Fluazinam)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (Fluazinam)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (Fluazinam)

IATA : Environmentally hazardous substance, liquid, n.o.s.

(Fluazinam)

14.3 Transport hazard class(es)

Class Subsidiary risks

ADN : 9
ADR : 9
RID : 9
IMDG : 9
IATA : 9

14.4 Packing group

ADN

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

ADR

Packing group : III Classification Code : M6

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

Hazard Identification Number : 90 Labels : 9 Tunnel restriction code : (-)

RID

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG

Packing group : III
Labels : 9
EmS Code : F-A, S-F

IATA (Cargo)

Packing instruction (cargo : 964

aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passen- : 964

ger aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Conditions of restriction for the fol-

lowing entries should be considered:

Number on list 3

UK REACH Candidate list of substances of very high

concern (SVHC) for Authorisation

Not applicable

The Persistent Organic Pollutants Regulations (retained

Regulation (EU) 2019/1021 as amended for Great Brit-

ain)

Not applicable

Regulation (EU) No 2024/590 on substances that de-

plete the ozone layer

Not applicable

UK REACH List of substances subject to authorisation

(Annex XIV)

Not applicable

Control of Major Accident Hazards Regulations E1 2015 (COMAH)

ENVIRONMENTAL HAZARDS

Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to new and expectant mothers at work contained in Regulation 16 to 18) and of the Pregnant Workers Directive 92/85/EEC.

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

The components of this product are reported in the following inventories:

TCSI : Not in compliance with the inventory

TSCA : Product contains substance(s) not listed on TSCA inventory.

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not

on the Canadian DSL nor NDSL.

fluazinam (ISO)

mixture of polyorganosiloxanes and fillers

Alcohols, C13-15, branched and linear, ethoxylated

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : Not in compliance with the inventory

NZIoC : Not in compliance with the inventory

TECI: Not in compliance with the inventory

15.2 Chemical safety assessment

A chemical safety assessment is not required for this product (mixture).

SECTION 16: Other information

Full text of H-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.

H330 : Fatal if inhaled. H332 : Harmful if inhaled.

H361d : Suspected of damaging the unborn child.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Dam. : Serious eye damage

Eye Irrit. : Eye irritation

Repr. : Reproductive toxicity

Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergen-

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

cy Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture: Classification procedure:

Skin Sens. 1B	H317	Based on product data or assessment
Repr. 2	H361d	Based on product data or assessment
Aquatic Acute 1	H400	Based on product data or assessment
Aquatic Chronic 1	H410	Based on product data or assessment

Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. You can contact FMC Corporation to ensure that this document is the most current available from FMC Corporation. No warranty of fitness for any particular purpose, warranty of merchantability or any other warranty, expressed or implied, is made concerning the information provided herein. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. The user is responsible for determining whether the product is fit for a particular purpose and suitable for the user's conditions and methods of use. Since the conditions and methods of use are beyond the control of FMC Corporation, FMC Corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

Prepared by

FMC Corporation

FMC and the FMC Logo are trademarks of FMC Corporation and/or an affiliate.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



DELTIC PRO™

Version Revision Date: SDS Number: Date of last issue: -

1.1 30.06.2025 50001848 Date of first issue: 01.08.2020

© 2021-2025 FMC Corporation. All Rights Reserved.

GB/6N