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Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

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

1.1 Product identifier

Trade name : ProClova™

Unique Formula Identifier : W7AA-7077-A00R-EVF9

(UFI)

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

Use of the Sub- : End use herbicide product

stance/Mixture

1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION

Manufacturer/importer

Corteva Agriscience UK Ltd Melbourn Science Park - Cambridge Road - Unit H4, Building H Melbourn Cambridgeshire - SG8 6HB UNITED KINGDOM

Customer Information : +44 8006 89 8899

Number

E-mail address : SDS@corteva.com

1.4 Emergency telephone number

+44 161 88 41235

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, Category 1B

Eye irritation, Category 2

Short-term (acute) aquatic hazard, Cate
H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H400: Very toxic to aquatic life.

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gory 1

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.

> H319 Causes serious eve irritation.

H410 Very toxic to aquatic life with long lasting effects.

Prevention: Precautionary statements

> P261 Avoid breathing dust or spray

Wear protective gloves/ protective clothing/ eye P280

protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with wa-

ter for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container to a licensed haz-

> ardous-waste disposal contractor or collection site except for empty clean containers whichcan be

disposed of as non-hazardous waste.

Additional Labelling

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

tions for use.

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.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)		
	Index-No.		(,,,,,,,,		
	Registration number				
Amidosulfuron	120923-37-7 407-380-0 616-209-00-0	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	37.11		
		M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100			
Florpyrauxifen-benzyl	1390661-72-9	Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1,000 M-Factor (Chronic aquatic toxicity): 10,000	7.76		
Sodium lignosulfonate	8061-51-6	Eye Irrit. 2; H319	>= 3 - < 10		
Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate	Not Assigned 939-538-4 01-2119976349-20, 01-2119976349-20- 0003, 01- 2119976349-20- 0004, 01- 2119976349-20- 0005, 01- 2119976349-20- 0006, 01- 2119976349-20- 0007	Eye Irrit. 2; H319	>= 1 - < 3		
Anatase	1317-70-0 215-280-1 022-006-00-2	Carc. 2; H351	>= 0.3 - < 1		
Substances with a workplace exposure limit :					

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Kaolin 1332-58-7 >= 30 - < 40 310-194-1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Protection of first-aiders First Aid responders should pay attention to self-protection

and use the recommended protective clothing (chemical re-

sistant gloves, splash protection).

If potential for exposure exists refer to Section 8 for specific

personal protective equipment.

If inhaled Move person to fresh air; if effects occur, consult a physician.

In case of skin contact Wash off with plenty of water.

Flush eyes thoroughly with water for several minutes. Re-In case of eye contact

> move contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, con-

sult a physician, preferably an ophthalmologist.

If swallowed No emergency medical treatment necessary.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment No specific antidote.

Treatment of exposure should be directed at the control of

symptoms and the clinical condition of the patient.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray

Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Exposure to combustion products may be a hazard to health.

Hazardous combustion prod: :

Nitrogen oxides (NOx)

ucts

Carbon oxides

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5.3 Advice for firefighters

Special protective equipment :

for firefighters

Wear self-contained breathing apparatus for firefighting if nec-

essary. Use personal protective equipment.

Specific extinguishing meth-

ods

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

SO.

Evacuate area.

Use water spray to cool unopened containers.

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

cumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions

Environmental precautions : Discharge into the environment must be avoided.

Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water.

Local authorities should be advised if significant spillages

cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Local or national regulations may apply to releases and dis-

posal of this material, as well as those materials and items

employed in.

Pick up and arrange disposal without creating dust.

Recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to over-

pressurization of the container.

Sweep up and shovel.

Keep in suitable, closed containers for disposal.

Sweep up or vacuum up spillage and collect in suitable con-

tainer for disposal.

See Section 13, Disposal Considerations, for additional infor-

mation.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Handle in accordance with good industrial hygiene and safety

practice.

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

plication area.

Take care to prevent spills, waste and minimize release to the

environment.

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Store in a closed container. Keep in properly labelled containers. Store in accordance with the particular national regula-

tions.

Advice on common storage : Strong oxidizing agents

Packaging material : Unsuitable material: None known.

7.3 Specific end use(s)

Specific use(s) : Plant protection products subject to Regulation (EC) No

1107/2009.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis	
Kaolin	1332-58-7	Long-term expo- sure limit (8-hour TWA reference period) (Respira- ble dust)	2 mg/m3	GB EH40	
		Long term expo- sure limit (Res- pirable dust)	0.1 mg/m3	2004/37/EC	
	Further information: Carcinogens or mutagens				

8.2 Exposure controls

Engineering measures

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

Local exhaust ventilation may be necessary for some operations.

Personal protective equipment

Eye/face protection Hand protection

Use safety glasses (with side shields).

Remarks : Use gloves chemically resistant to this material. Examples of

preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Styrene/butadiene rubber.

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Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

tions/specifications provided by the glove suppl Skin and body protection : Wear clean, body-covering clothing.

Skin and body protection : Wear clean, body-covering clothing. Respiratory protection : Respiratory protection should be wo

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced,

or where indicated by your risk assessment process.

For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved

air-purifying respirator.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Granules.
Colour : Tan
Odour : Mild

Odour Threshold : No data available

pH : 6.16 (20.9 °C)

Boiling point/boiling range : Not applicable

Flash point : Method: closed cup

Not applicable

Evaporation rate : No data available

Upper explosion limit / Upper

flammability limit

Not applicable

Lower explosion limit / Lower

flammability limit

Not applicable

Relative vapour density : No data available

Relative density : No data available

Density : No data available

Bulk density : 1.0 - 1.5 kg/m3 (20.3 °C)

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Solubility(ies)

Water solubility : No data available Partition coefficient: n- : No data available

octanol/water

Auto-ignition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

9.2 Other information

Self-ignition : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

No decomposition if stored and applied as directed.

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

No hazards to be specially mentioned.

None known.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Strong acids

Strong bases

10.6 Hazardous decomposition products

Carbon oxides

Nitrogen oxides (NOx)

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

Amidosulfuron:

Acute oral toxicity : LD50 (Mouse, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 1.8 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Maximum achievable concentration.

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Florpyrauxifen-benzyl:

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

Method: OECD Test Guideline 423

Symptoms: No deaths occurred at this concentration.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.23 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Symptoms: No deaths occurred at this concentration.

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 402

Symptoms: No deaths occurred at this concentration.

Sodium lignosulfonate:

Acute oral toxicity : LD50 (Rat, male and female): > 10,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.48 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Acute oral toxicity : LD50: > 4,000 mg/kg

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Method: OECD Test Guideline 401

Symptoms: No deaths occurred at this concentration.

Assessment: The substance or mixture has no acute oral tox-

icity

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

Method: OECD Test Guideline 402

Symptoms: No deaths occurred at this concentration.

Assessment: The substance or mixture has no acute dermal

toxicity

Anatase:

Acute oral toxicity : LD50 (Rat): > 10,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male): > 6.82 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Symptoms: No deaths occurred at this concentration.

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rabbit): 10,000 mg/kg

Kaolin:

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

Skin corrosion/irritation

Components:

Amidosulfuron:

Species : Rabbit

Result : No skin irritation

Florpyrauxifen-benzyl:

Species : Rabbit Exposure time : 4 h

Method : OECD Test Guideline 404

Result : No skin irritation

Anatase:

Result : No skin irritation

Kaolin:

Species : Rabbit

Result : No skin irritation

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Serious eye damage/eye irritation

Components:

Amidosulfuron:

Species : Rabbit

Result : No eye irritation

Florpyrauxifen-benzyl:

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

Sodium lignosulfonate:

Result : Eye irritation

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Result : Mild eye irritation

Anatase:

Result : No eye irritation

Kaolin:

Species : Rabbit

Result : No eye irritation

Respiratory or skin sensitisation

Components:

Amidosulfuron:

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

Florpyrauxifen-benzyl:

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Method : OECD Test Guideline 429

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

Sodium lignosulfonate:

Species : Guinea pig

Result : Does not cause skin sensitisation.

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Species : Mouse

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Result : Does not cause skin sensitisation.

Anatase:

Species : Mouse

Result : Does not cause skin sensitisation.

Species : Guinea pig

Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Components:

Amidosulfuron:

Germ cell mutagenicity- As-

sessment

In vitro genetic toxicity studies were negative., In vivo tests did

not show mutagenic effects

Florpyrauxifen-benzyl:

Germ cell mutagenicity- As-

sessment

In vitro genetic toxicity studies were negative., Animal genetic

toxicity studies were negative.

Sodium lignosulfonate:

Germ cell mutagenicity- As-

sessment

In vitro genetic toxicity studies were negative.

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Germ cell mutagenicity- As-

sessment

In vitro genetic toxicity studies were negative.

Anatase:

Germ cell mutagenicity- As-

sessment

In vitro genetic toxicity studies were negative in some cases

and positive in other cases., Animal genetic toxicity studies

were negative.

Carcinogenicity

Components:

Amidosulfuron:

Carcinogenicity - Assess-

.

Did not cause cancer in laboratory animals.

Florpyrauxifen-benzyl:

Carcinogenicity - Assess-

ment

ment

Did not cause cancer in laboratory animals.

Anatase:

Carcinogenicity - Assess-

ment

: Lung fibrosis and tumors have been observed in rats exposed

to titanium dioxide in two lifetime inhalation studies. Effects are believed to be due to overloading of the normal respiratory clearance mechanisms caused by the extreme study condi-

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tions. Workers exposed to titanium dioxide in the workplace have not shown an unusual incidence of chronic respiratory disease or lung cancer. Titanium dioxide was not carcinogen-

ic in laboratory animals in lifetime feeding studies.

Kaolin:

Carcinogenicity - Assess-

ment

Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

Amidosulfuron:

Reproductive toxicity - As-

sessment

In animal studies, did not interfere with reproduction.

Did not cause birth defects or any other fetal effects in labora-

tory animals.

Florpyrauxifen-benzyl:

Reproductive toxicity - As-

sessment

In animal studies, did not interfere with reproduction.

Did not cause birth defects or any other fetal effects in labora-

tory animals.

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Reproductive toxicity - As-

sessment

: In animal studies, did not interfere with reproduction.

STOT - single exposure

Product:

Assessment : Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

Components:

Amidosulfuron:

Assessment : Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

Florpyrauxifen-benzyl:

Assessment : Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Assessment : Available data are inadequate to determine single exposure

specific target organ toxicity.

Anatase:

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

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organ toxicant, single exposure.

Kaolin:

Assessment : Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

STOT - repeated exposure

Product:

Assessment : Evaluation of available data suggests that this material is not

an STOT-RE toxicant.

Repeated dose toxicity

Components:

Florpyrauxifen-benzyl:

Remarks : Based on available data, repeated exposures are not antici-

pated to cause significant adverse effects.

Sodium lignosulfonate:

Remarks : Based on available data, repeated exposures are not antici-

pated to cause significant adverse effects.

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Remarks : No relevant data found.

Anatase:

Remarks : Repeated excessive inhalation exposures to dusts may cause

respiratory effects.

In animals, effects have been reported on the following or-

gans: Lung.

Kaolin:

Remarks : Repeated excessive exposure to crystalline silica may cause

silicosis, a progressive and disabling disease of the lungs.

Aspiration toxicity

Product:

Based on physical properties, not likely to be an aspiration hazard.

Components:

Amidosulfuron:

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Florpyrauxifen-benzyl:

Based on physical properties, not likely to be an aspiration hazard.

Sodium lignosulfonate:

Based on available information, aspiration hazard could not be determined.

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Based on physical properties, not likely to be an aspiration hazard.

Anatase:

Based on physical properties, not likely to be an aspiration hazard.

Kaolin:

Based on physical properties, not likely to be an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Product:

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 77 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Information source: Internal study report

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 98.0

mq/l

End point: Growth rate Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Information source: Internal study report

EyC50 (Pseudokirchneriella subcapitata (green algae)): 12.6

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

EC50 (Lemna gibba): 0.000011 mg/l

10,8 µg/l

End point: Growth rate Exposure time: 7 d

Method: OECD Test Guideline 221

Remarks: Information source: Internal study report

ErC50 (Myriophyllum spicatum): 0.0000007 mg/l

 $0,697 \mu g/l$

End point: Biomass

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Exposure time: 14 d

Remarks: Information source: Internal study report

NOEC (Lemna gibba): 0.0000627 mg/l

End point: Growth rate Exposure time: 7 d

Method: OECD Test Guideline 221

NOEC (Myriophyllum spicatum): 0.0000003 mg/l

End point: Biomass Exposure time: 14 d

Toxicity to terrestrial organ-

isms

oral LD50: > 213,4

Exposure time: 48 h End point: mortality

Species: Apis mellifera (bees)

Method: OECD Test Guideline 213

contact LD50: > 200 Exposure time: 48 h End point: mortality

Species: Apis mellifera (bees) Method: OECD Test Guideline 214

Ecotoxicology Assessment

Acute aquatic toxicity Very toxic to aquatic life.

Chronic aquatic toxicity Very toxic to aquatic life with long lasting effects.

Components:

Amidosulfuron:

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): > 320 mg/l

> Exposure time: 96 h Test Type: Static

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 55 mg/l

Exposure time: 48 h Test Type: Static

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

ErC50 (Lemna gibba): 0.0176 mg/l

Exposure time: 14 d Test Type: Static

NOEC (Lemna gibba): < 0.0092 mg/l

Exposure time: 7 d Test Type: Static

M-Factor (Acute aquatic tox- :

icity)

100

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M-Factor (Chronic aquatic

toxicity)

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Florpyrauxifen-benzyl:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.0490 mg/l

Exposure time: 96 h Test Type: flow-through

Method: OECD Test Guideline 203

LC50 (Pimephales promelas (fathead minnow)): > 0.0518 mg/l

Exposure time: 96 h

Test Type: flow-through test Method: OECD Test Guideline 203

LC50 (Cyprinodon variegatus (sheepshead minnow)): >

0.0403 mg/l

Exposure time: 96 h

Test Type: flow-through test

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 0.0623 mg/l

Exposure time: 48 h

Test Type: Static renewal test Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): >

0.0424 mg/l

End point: Growth rate inhibition

Exposure time: 72 h

Method: OECD Test Guideline 201

ErC50 (Myriophyllum spicatum): 0.000154 mg/l

Exposure time: 14 d

Test Type: Growth inhibition

NOEC (Myriophyllum spicatum): 0.0000095 mg/l

Exposure time: 14 d

Test Type: Growth inhibition

ErC50 (Anabaena flos-aquae (cyanobacterium)): 0.0423 mg/l

End point: Growth rate inhibition

Exposure time: 72 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox- :

icity)

1,000

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l

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Exposure time: 3 h

Method: OECD Test Guideline 209

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.0370 mg/l Exposure time: 33 d

Species: Pimephales promelas (fathead minnow)

Test Type: static test

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.0378 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

10,000

Toxicity to soil dwelling or-

ganisms

LC50: > 2,000 mg/kg Exposure time: 14 d

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organ-

isms

oral LD50: > 2250 mg/kg bodyweight.

End point: mortality

Species: Colinus virginianus (Bobwhite quail)

dietary LC50: > 5620 mg/kg diet.

Species: Anas platyrhynchos (Mallard duck)

oral LD50: > 105.4 µg/bee Exposure time: 48 h End point: mortality

Species: Apis mellifera (bees)

contact LD50: > 100 µg/bee Exposure time: 48 h End point: mortality

Species: Apis mellifera (bees)

Sodium lignosulfonate:

Toxicity to fish : Remarks: Material is practically non-toxic to aquatic organ-

isms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in

the most sensitive species tested).

LC50 (Pimephales promelas (fathead minnow)): 615 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202 or Equivalent

Remarks: For this family of materials:

Anatase:

Toxicity to fish : Remarks: Material is practically non-toxic to aquatic organ-

isms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in

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the most sensitive species tested).

NOEC mortality (Leuciscus idus (Golden orfe)): > 1,000 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 1,000 mg/l

Exposure time: 48 h Test Type: static test

12.2 Persistence and degradability

Components:

Amidosulfuron:

Biodegradability : Result: Not biodegradable

Florpyrauxifen-benzyl:

Biodegradability : Test Type: CO2 evolution

Result: Not biodegradable Biodegradation: 14.6 % Exposure time: 29 d

Method: OECD Test Guideline 301B Remarks: 10-day Window: Fail

Stability in water : Test Type: Hydrolysis

Degradation half life (DT50): 913 d (25 °C)

pH: 4

Test Type: Hydrolysis

Degradation half life (DT50): 111 d (25 °C)

pH: 7

Test Type: Hydrolysis

Degradation half life (DT50): 1.3 d (25 °C)

pH: 9

Sodium lignosulfonate:

Biodegradability : Result: Not biodegradable

Biodegradation: < 5 % Exposure time: 28 d

Method: OECD Test Guideline 301E Remarks: 10-day Window: Fail

Photodegradation : Rate constant: 1.089E-10 cm3/s

Method: Estimated.

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Biodegradability : Result: Readily biodegradable.

Remarks: Material is readily biodegradable. Passes OECD

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test(s) for ready biodegradability.

Method: OECD Test Guideline 301D

Anatase:

Biodegradability : Remarks: Biodegradation is not applicable.

12.3 Bioaccumulative potential

Components:

Amidosulfuron:

Bioaccumulation : Remarks: Bioconcentration potential is low (BCF < 100 or Log

Pow < 3).

Partition coefficient: n-

octanol/water

: Remarks: No relevant data found.

Florpyrauxifen-benzyl:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Exposure time: 30 d

Bioconcentration factor (BCF): 356

Partition coefficient: n-

octanol/water

log Pow: 5.5 (20 °C)

pH: 7

Remarks: Bioconcentration potential is moderate (BCF be-

tween 100 and 3000 or Log Pow between 3 and 5).

Sodium lignosulfonate:

Bioaccumulation : Species: Fish

Bioconcentration factor (BCF): 3.2

Partition coefficient: n-

octanol/water

:

log Pow: -3.45 Method: Estimated.

Remarks: Bioconcentration potential is low (BCF < 100 or Log

Pow < 3).

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Partition coefficient: n-

octanol/water

: Remarks: No relevant data found.

Anatase:

Partition coefficient: n-

octanol/water

: Remarks: Partitioning from water to n-octanol is not applica-

ble.

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12.4 Mobility in soil

Components:

Amidosulfuron:

Distribution among environmental compartments

Remarks: No relevant data found.

Florpyrauxifen-benzyl:

Distribution among environ-

mental compartments

Koc: 15305 - 33500

Remarks: Expected to be relatively immobile in soil (Koc >

5000).

Sodium lignosulfonate:

Distribution among environmental compartments Koc: > 99999 Method: Estimated.

Remarks: Expected to be relatively immobile in soil (Koc >

5000).

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Distribution among environ-

mental compartments

: Remarks: No relevant data found.

Anatase:

Distribution among environ-

mental compartments

Remarks: No data available.

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.

Components:

Amidosulfuron:

Assessment : This substance has not been assessed for persistence, bioac-

cumulation and toxicity (PBT).

Florpyrauxifen-benzyl:

Assessment : Substance is not persistent, bioaccumulative, and toxic

(PBT).. Substance is not very persistent and very bioaccumu-

lative (vPvB).

Sodium lignosulfonate:

Assessment : This substance has not been assessed for persistence, bioac-

cumulation and toxicity (PBT).

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Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Anatase:

Assessment : This substance has not been assessed for persistence, bioac-

cumulation and toxicity (PBT).

Kaolin:

Assessment : This substance is not considered to be persistent, bioaccumu-

lating and toxic (PBT).. This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Endocrine disrupting poten-

tial

This substance/mixture does not contain components consid-

ered to have endocrine disrupting properties for environment

according to UK REACH Article 57(f).

Components:

Amidosulfuron:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

Florpyrauxifen-benzyl:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

Sodium lignosulfonate:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

Fatty acid chlorides, C18 unsatd., reaction products with sodium N-methyltaurinate:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

Anatase:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

Kaolin:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : If wastes and/or containers cannot be disposed of according

to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable requ-

lations.

If the material as supplied becomes a waste, follow all appli-

cable regional, national and local laws.

SECTION 14: Transport information

14.1 UN number

ADR : UN 3077
RID : UN 3077
IMDG : UN 3077
IATA : UN 3077

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Florpyrauxifen-benzyl, Amidosulfuron)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Florpyrauxifen-benzyl, Amidosulfuron)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Florpyrauxifen-benzyl, Amidosulfuron)

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

(Florpyrauxifen-benzyl, Amidosulfuron)

14.3 Transport hazard class(es)

Class Subsidiary risks

 ADR
 : 9

 RID
 : 9

 IMDG
 : 9

 IATA
 : 9

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14.4 Packing group

ADR

Packing group Ш Classification Code M7 Hazard Identification Number 90 Labels 9 Tunnel restriction code (-)

RID

Packing group Ш Classification Code M7 Hazard Identification Number : 90 Labels 9

IMDG

Packing group Ш Labels 9 EmS Code

F-A, S-F

Remarks Stowage category A

IATA (Cargo)

Packing instruction (cargo 956

aircraft)

Packing instruction (LQ) Y956 Packing group Ш

Labels Miscellaneous

IATA (Passenger)

Packing instruction (passen-956

ger aircraft)

Packing instruction (LQ) Y956 Packing group Ш

Miscellaneous Labels

14.5 Environmental hazards

Environmentally hazardous : yes

Environmentally hazardous : yes

IMDG

Marine pollutant yes(Florpyrauxifen-benzyl, Amidosulfuron)

14.6 Special precautions for user

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

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.

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

Not applicable for product as supplied.

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 Candidate list of substances of very high : Not applicable

concern (SVHC) for Authorisation

The Persistent Organic Pollutants Regulations (retained : Not applicable

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

ain)

Regulation (EC) on substances that deplete the ozone : Not applicable

layer

UK REACH List of substances subject to authorisation : Not applicable

(Annex XIV)

Seveso III: Directive 2012/18/EU of the Euro- E1 ENVIRONMENTAL HAZARDS

pean Parliament and of the Council on the control of major-accident hazards involving

dangerous substances.

strol of major accident beyonds involving

Registration Number : 21165

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

The mixture is evaluated within the frame of the provisions of Regulation (EC) No. 1107/2009. Refer to the label for exposure assessment information.

SECTION 16: Other information

Full text of H-Statements

H317 : May cause an allergic skin reaction.
H319 : Causes serious eye irritation.

H351 : Suspected of causing cancer if inhaled.

H400 : Very toxic to aquatic life.

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

Full text of other abbreviations

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

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

2004/37/EC : Europe. Directive 2004/37/EC on the protection of workers

from the risks related to exposure to carcinogens or mutagens

at work

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GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

2004/37/EC / TWA : Long term exposure limit

Long-term exposure limit (8-hour TWA reference period) GB EH40 / TWA ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM -American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; 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; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN -United Nations.

Further information

Classification of the mixture: Classification procedure:

6.5 1B	H317	Calculation method
Eye Irrit. 2	H319	Calculation method

Aquatic Acute 1 H400 Based on product data or assessment
Aquatic Chronic 1 H410 Based on product data or assessment

Product code: GF-3730

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

GB / 6N