

 PROCLUS

 Version 4 / GB
 Revision Date: 10.03.2023

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

1.1 Product identifier

Trade name PROCLUS
Product code (UVP) 05922585

**UFI** R5T0-G00C-D000-NWT9 (for Northern Ireland only) (voluntary

notification)

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

**Use** Herbicide

1.3 Details of the supplier of the safety data sheet

**Supplier** Bayer CropScience Limited

230 Cambridge Science Park

Milton Road Cambridge

Cambridgeshire CB4 0WB

United Kingdom

**Telephone** +44(0)1223 226500

Telefax +44(0)1223 426240

Responsible Department Email: gb-bcs-crop-regulatory-affairs@bayer.com

FOR IRELAND & Bayer CropScience Ltd

NORTHERN IRELAND: Bayer Ltd

1st Floor, The Grange Offices The Grange, Brewery Road

Stillorgan Co. Dublin A94 H2K7 Ireland

**Telephone** +353 1 216 3300

1.4 Emergency telephone no.

Emergency telephone no. 00800 1020 3333 (24 hr) (not available on non-contract mobile phones)

For Medical Professionals: You can also contact the relevant NPIS.

For Members of the Public: You can also contact NHS111 (for GB) or your local GP (for Northern

Ireland).

**National Poisons** 

**Information Centre Dublin** 

+353-1-809 2166 (available from 8 am to 10 pm every day)



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### **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Carcinogenicity: Category 2

H351 Suspected of causing cancer.

Acute aquatic toxicity: Category 1

H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1

H410 Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

### Hazardous components which must be listed on the label:

Aclonifen





# Signal word: Warning Hazard statements

H351 Suspected of causing cancer.

H410 Very toxic to aquatic life with long lasting effects.

EUH401 To avoid risks to human health and the environment, comply with the instructions for

use.

EUH208 Contains Aclonifen, 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

### **Precautionary statements**

P280 Wear protective gloves.

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

P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or

collection site except for empty clean containers which can be disposed of as non-

hazardous waste.

### 2.3 Other hazards

No additional hazards known beside those mentioned.

Ethoxylated polyarylphenol: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Aclonifen: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f)

or Commission Delegated regulation (EU) 2017/2100 or Commission



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Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to

have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.2 Mixtures

#### **Chemical nature**

Suspension concentrate (=flowable concentrate)(SC) Aclonifen 600 g/l SC

### **Hazardous components**

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. /	Classification	Conc. [%]	
	EC-No. / REACH Reg. No.	REGULATION (EC) No 1272/2008		
Aclonifen	74070-46-5		49.60	
Ethoxylated polyarylphenol	99734-09-5	Aquatic Chronic 3, H412	>= 1.00 - < 25.00	
1,2-Benzisothiazol-3(2H)- one	2634-33-5 01-2120761540-60-0003		>= 0.005 - < 0.05	
Urea	57-13-6 01-2119463277-33-xxxx	Not classified	>= 1.0	

#### **Further information**

1,2-Benzisothiazol-	2634-33-5	M-Factor: 10 (acute)
3(2H)-one		

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### **Particle characteristics**

This substance/ mixture does not contain nanoforms

### **SECTION 4: FIRST AID MEASURES**

### 4.1 Description of first aid measures

General advice Move out of dangerous area. Remove contaminated clothing

immediately and dispose of safely. When symptoms develop and

persist, seek medical advice.

**Inhalation** Move the victim to fresh air and keep at rest.

**Skin contact** Wash off thoroughly with plenty of soap and water, if available with

polyethyleneglycol 400, subsequently rinse with water.

**Eye contact** Wash off immediately with plenty of water for at least 15 minutes.



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Ingestion Do NOT induce vomiting. Obtain medical attention. Keep patient warm

and at rest.

4.2 Most important symptoms and effects, both acute and delayed

**Symptoms** No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

**Treatment** Gastric lavage is not normally required. However, if a significant

amount (more than a mouthful) has been ingested, administer

activated charcoal and sodium sulphate. There is no specific antidote.

Treat symptomatically.

### **SECTION 5: FIREFIGHTING MEASURES**

5.1 Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon

dioxide.

Unsuitable High volume water jet

5.2 Special hazards arising

from the substance or

mixture

In the event of fire the following may be released:, Carbon monoxide

(CO), Nitrogen oxides (NOx), Hydrogen chloride (HCI)

5.3 Advice for firefighters

Special protective

equipment for firefighters

In the event of fire and/or explosion do not breathe fumes. Wear self-

contained breathing apparatus and protective suit.

**Further information** Contain the spread of the fire-fighting media. Do not allow run-off from

fire fighting to enter drains or water courses.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### 6.1 Personal precautions, protective equipment and emergency procedures

**Precautions** Keep people away from and upwind of spill/leak. Avoid contact with

> spilled product or contaminated surfaces. Use personal protective equipment. When dealing with a spillage do not eat, drink or smoke.

6.2 Environmental

Do not allow to get into surface water, drains and ground water.

precautions

### 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Recover the product by pumping, suction or absorption using a dry

> and inert absorbent clay. Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Check also for any local site procedures.



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6.4 Reference to other

sections

Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.

### **SECTION 7: HANDLING AND STORAGE**

### 7.1 Precautions for safe handling

No specific precautions required when handling unopened Advice on safe handling

packs/containers; follow relevant manual handling advice. Use only in

area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion No special precautions required.

Avoid contact with skin, eyes and clothing. Keep working clothes Hygiene measures

> separately. Remove soiled clothing immediately and clean thoroughly before using again. Wash hands before breaks and immediately after

handling the product.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

Store in original container. Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and wellventilated place. Protect from freezing. Keep away from direct sunlight.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Suitable materials

7.3 Specific end use(s)

HDPE (high density polyethylene) Refer to the label and/or leaflet.

### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### 8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Urea	57-13-6	10 mg/m3 (TWA)		OES BCS*
Aclonifen	74070-46-5	2 mg/m3 (SK-SEN)		OES BCS*

<sup>\*</sup>OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

#### 8.2 Exposure controls

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

### Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection Respiratory protection is not required under anticipated

circumstances of exposure.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have



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been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's

instructions regarding wearing and maintenance.

Hand protection Please observe the instructions regarding permeability and

breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating,

drinking, smoking or using the toilet.

Material Nitrile rubber
Rate of permeability > 480 min
Glove thickness > 0.4 mm
Protective index Class 6

Directive Protective gloves complying with EN

374.

**Eye protection** Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection** Wear standard coveralls and Category 3 Type 6 suit.

If there is a risk of significant exposure, consider a higher protective

type suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and

should be professionally laundered frequently.

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### 9.1 Information on basic physical and chemical properties

Form suspension
Colour yellow

Odour No data available
Odour Threshold No data available
Melting point/range No data available

Boiling point/boiling range 100 °C

Flammability No data available
Upper explosion limit No data available
Lower explosion limit No data available

Flash point none
Auto-ignition temperature 480 °C

Self-accelarating decomposition temperature (SADT)

No data available



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**pH** 7.5 - 8.5 (1 %) (23 °C) (deionized water)

Viscosity, dynamic 250 - 450 mPa.s (20 °C)

Velocity gradient 20 /s 100 - 200 mPa.s (20 °C) Velocity gradient 100 /s

Viscosity, kinematic No data available

Water solubility dispersible

Partition coefficient: n-

octanol/water

Ethoxylated polyarylphenol:

Aclonifen: log Pow: 4.37

No data available

Surface tension 40 mN/m (20 °C)

Vapour pressure No data available

**Density** ca. 1.21 g/cm³ (20 °C)

Relative density

No data available

Relative vapour density

No data available

Assessment nano particles This substance/ mixture does not contain nanoforms

Particle size No data available

9.2 Other information

ExplosivityNot explosiveOxidizing propertiesNo data availableEvaporation rateNo data available

Other physico-chemical

properties

Further safety related physical-chemical data are not known.

### **SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity** Stable under normal conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

10.3 Possibility of No hazardous reactions when stored and handled according to

hazardous reactions prescribed instructions.



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**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5 Incompatible materials** Store only in the original container.

10.6 Hazardous decomposition products

No decomposition products expected under normal conditions of use.

### **SECTION 11: TOXICOLOGICAL INFORMATION**

### 11.1 Information on hazard classes as defined in regulation (EC) No 1272/2008

Acute oral toxicity LD50 (Rat) = 5,596 mg/kg

Acute inhalation toxicity

During intended and foreseen applications, no respirable aerosol is

formed.

Acute dermal toxicity LD50 (Rat) > 2,000 mg/kg
Skin corrosion/irritation No skin irritation (Rabbit)
Serious eye damage/eye No eye irritation (Rabbit)

irritation

, ,

**Respiratory or skin** Skin: Non-sensitizing. (Guinea pig) sensitisation OECD Test Guideline 406, Buehler test

### Assessment STOT Specific target organ toxicity – single exposure

Ethoxylated polyarylphenol: This information is not available.

Aclonifen: Based on available data, the classification criteria are not met.

### Assessment STOT Specific target organ toxicity - repeated exposure

Ethoxylated polyarylphenol: This information is not available.

Aclonifen did not cause specific target organ toxicity in experimental animal studies.

#### Assessment mutagenicity

Ethoxylated polyarylphenol was not genotoxic in a battery of in vitro tests.

Aclonifen was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

#### Assessment carcinogenicity

Ethoxylated polyarylphenol: This information is not available.

Aclonifen caused an increased incidence of tumours in rats in the following organ(s): Brain.

### Assessment toxicity to reproduction

Ethoxylated polyarylphenol: This information is not available.

Aclonifen did not cause reproductive toxicity in a two-generation study in rats.

### Assessment developmental toxicity

Ethoxylated polyarylphenol: This information is not available. Aclonifen did not cause developmental toxicity in rats and rabbits.

### **Aspiration hazard**

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



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#### **Further information**

No further toxicological information is available.

### 11.2 Information on other hazards

### **Endocrine disrupting properties**

Assessment The substance/mixture does not contain components considered to have

endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **SECTION 12: ECOLOGICAL INFORMATION**

12.1 Toxicity

**Toxicity to fish** LC50 (Oncorhynchus mykiss (rainbow trout)) = 1.27 mg/l

Exposure time: 96 h

Toxicity to aquatic

EC50 (Daphnia magna (Water flea)) = 2.4 mg/l

invertebrates

Exposure time: 48 h

Chronic toxicity to aquatic

invertebrates

NOEC (Daphnia magna (Water flea)): 60.0 μg/l

Exposure time: 21 d

**Toxicity to aquatic plants** EC50 (Raphidocelis subcapitata (freshwater green alga)) = 0.058 mg/l

Growth rate; Exposure time: 96 h

ErC50 (Lemna gibba (gibbous duckweed)) 0.043 mg/l

Growth rate; Exposure time: 7 d

NOEC (Lemna gibba (gibbous duckweed)) 0.004 mg/l

Growth rate; Exposure time: 7 d

12.2 Persistence and degradability

**Biodegradability** Ethoxylated polyarylphenol:

No data available

Aclonifen:

Not rapidly biodegradable

**Koc** Ethoxylated polyarylphenol:No data available

Aclonifen: Koc: 5318 - 10612

12.3 Bioaccumulative potential

**Bioaccumulation** Ethoxylated polyarylphenol:

No data available

Aclonifen: Bioconcentration factor (BCF) 2,896

Potential bioaccumulation

12.4 Mobility in soil

**Mobility in soil** Ethoxylated polyarylphenol: No data available

Aclonifen: Immobile in soil

### 12.5 Results of PBT and vPvB assessment



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PBT and vPvB assessment Ethoxylated polyarylphenol: This substance is not considered to be

persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Aclonifen: This substance is not considered to be persistent,

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

very persistent and very bioaccumulative (vPvB).

12.6 Endocrine disrupting properties

Assessment The substance/mixture does not contain components considered to have

endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Additional ecological

information

No other effects to be mentioned.

### **SECTION 13: DISPOSAL CONSIDERATIONS**

#### 13.1 Waste treatment methods

Product In accordance with current regulations and, if necessary, after

consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Contaminated packaging Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using

an integrated pressure rinsing device, or, by manually rinsing three

times.

Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Follow advice on product label and/or leaflet.

#### **SECTION 14: TRANSPORT INFORMATION**

### ADR/RID/ADN

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(ACLONIFEN SOLUTION)

14.3 Transport hazard class(es)
14.4 Packaging Group
14.5 Environm. Hazardous Mark
Hazard no.
70
Tunnel Code
9
9
7

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

#### **IMDG**

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.



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(ACLONIFEN SOLUTION)

14.3 Transport hazard class(es) 9
14.4 Packaging Group III
14.5 Marine pollutant YES

**IATA** 

14.1 UN number **3082** 

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(ACLONIFEN SOLUTION)

14.3 Transport hazard class(es) 9
14.4 Packaging Group III
14.5 Environm. Hazardous Mark YES

**UK 'Carriage' Regulations** 

14.1 UN number **3082** 

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(ACLONIFEN SOLUTION)

14.3 Transport hazard class(es)914.4 Packaging GroupIII14.5 Environm. Hazardous MarkYESEmergency action code3Z

### 14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

### 14.7 Transport in bulk according to IMO instruments

No transport in bulk according to the IBC Code.

### **SECTION 15: REGULATORY INFORMATION**

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

### **UK and Northern Ireland Regulatory References**

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

### **Transport**

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348)

Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367) Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786)

### Supply and Use

Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716) Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009 Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677) EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits Control of Pesticide Regulations 1986

Dangerous Substances and Explosive Atmospheres Regulations 2002



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#### **Waste Treatment**

Environmental Protection Act 1990, Part II

Environmental Protection (Duty of Care) Regulations 1991

The Waste Management Licensing Regulations 1994 (as amended)

Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended)

Landfill Directive

Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)

Water Resources Act 1991

Anti-Pollution Works Regulations 1999

### **Further information**

WHO-classification: III (Slightly hazardous)

### **SECTION 16: OTHER INFORMATION**

#### Text of the hazard statements mentioned in Section 3

Harmful to aquatic life with long lasting effects.

### Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by

Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by

Road

ATE Acute toxicity estimate

CAS-Nr. Chemical Abstracts Service number

Conc. Concentration

EC-No. European community number Effective concentration to x % ECx EH40 WEL Worker Exposure Limit

**EINECS** European inventory of existing commercial substances

European list of notified chemical substances **ELINCS** 

European Standard ΕN **European Union** EU

IATA International Air Transport Association

**IBC** International Code for the Construction and Equipment of Ships Carrying Dangerous

> Chemicals in Bulk (IBC Code) Inhibition concentration to x %

International Maritime Dangerous Goods **IMDG** 

Lethal concentration to x % LCx

Lethal dose to x % LDx

**IC**x

LOEC/LOEL Lowest observed effect concentration/level

MARPOL MARPOL: International Convention for the prevention of marine pollution from ships

Not otherwise specified N.O.S.

NOEC/NOEL No observed effect concentration/level

Organization for Economic Co-operation and Development OECD

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

SI Statutory Instrument TWA Time weighted average

**United Nations** UN

WHO World health organisation



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The above information is intended to give general health and safety guidance on the storage and transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.