



## CHALLENGE SC600 4X5L BOT IL

Version 6 / EU  
102000001644

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Revision Date: 23.05.2019  
Print Date: 23.03.2020

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

#### 1.1 Product identifier

**Trade name** CHALLENGE SC600 4X5L BOT IL  
**Product code (UVP)** 05922585

#### 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 AG  
Kaiser-Wilhelm-Allee 1  
51373 Leverkusen  
Germany

**Telefax** +49(0)2173-38-7394

**Responsible Department** Substance Classification & Registration  
+49(0)2173-38-3409 (during business hours only)  
Email: BCS-SDS@bayer.com

#### 1.4 Emergency telephone no.

**Emergency telephone no.** Global Incident Response Hotline (24h)  
+1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

### 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

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- 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/ protective clothing/ eye protection/ face protection.  
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
 P391 Collect spillage.  
 P501 Dispose of contents/container in accordance with local regulation.

**2.3 Other hazards**

No other hazards known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**

Suspension concentrate (=flowable concentrate)(SC)

Aclonifen 600 g/l

**Hazardous components**

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

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Aclonifen	74070-46-5 277-704-1	Aquatic Chronic 1, H410 Carc. 2, H351 Skin Sens. 1A, H317 Aquatic Acute 1, H400	49,60
Ethoxylated polyarylphenol	99734-09-5	Aquatic Chronic 3, H412	>= 1,00 – < 25,00
1,2-Benzisothiazol-3(2H)- one	2634-33-5 220-120-9 01-2120761540-60-0003	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Acute Tox. 4, H302 Aquatic Acute 1, H400	>= 0,005 – < 0,05
Urea	57-13-6 200-315-5 01-2119463277-33-xxxx	Not classified	>= 1,0

**Further information**



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Aclonifen	74070-46-5	M-Factor: 100 (acute), 10 (chronic)
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For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures**

<b>General advice</b>	Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. When symptoms develop and persist, seek medical advice.
<b>Inhalation</b>	Move the victim to fresh air and keep at rest.
<b>Skin contact</b>	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.
<b>Eye contact</b>	Wash off immediately with plenty of water for at least 15 minutes.
<b>Ingestion</b>	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**

<b>Suitable</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable</b>	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 (HCl)

**5.3 Advice for firefighters**

<b>Special protective equipment for firefighters</b>	In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.
<b>Further information</b>	Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.



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

**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.

**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**

**Advice on safe handling** No specific precautions required when handling unopened 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.

**Hygiene measures** Avoid contact with skin, eyes and clothing. Keep working clothes 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 well-ventilated place. Protect from freezing. Keep away from direct sunlight.

**Advice on common storage** Keep away from food, drink and animal feedingstuffs.

**Suitable materials** HDPE (high density polyethylene)

**7.3 Specific end use(s)** Refer to the label and/or leaflet.

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

**8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
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Aclonifen	74070-46-5	2 mg/m <sup>3</sup> (SK-SEN)	OES BCS*
Urea	57-13-6	10 mg/m <sup>3</sup> (TWA)	OES BCS*

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

**8.2 Exposure controls****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 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**

<b>Form</b>	suspension
<b>Colour</b>	yellow
<b>pH</b>	7,5 - 8,5 (1 %) (23 °C) (deionized water)
<b>Boiling point/boiling range</b>	100 °C

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<b>Flash point</b>	none
<b>Ignition temperature</b>	480 °C
<b>Density</b>	ca. 1,21 g/cm <sup>3</sup> ( 20 °C)
<b>Water solubility</b>	dispersible
<b>Partition coefficient: n-octanol/water</b>	log Pow: 4,37 The value mentioned relates to the active ingredient aclonifen.
<b>Viscosity, dynamic</b>	250 - 450 mPa.s ( 20 °C) Velocity gradient 20 /s 100 - 200 mPa.s ( 20 °C) Velocity gradient 100 /s
<b>Surface tension</b>	40 mN/m ( 20 °C)
<b>Explosivity</b>	Not explosive
<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.

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**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity****Thermal decomposition** Stable under normal conditions.**10.2 Chemical stability** Stable under recommended storage conditions.**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.**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.

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**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****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 irritation** No eye irritation (Rabbit)**Respiratory or skin sensitisation** Skin: Non-sensitizing. (Guinea pig)  
OECD Test Guideline 406, Buehler test**Assessment STOT Specific target organ toxicity – single exposure**



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

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

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

### Assessment mutagenicity

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

### Assessment carcinogenicity

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

### Assessment toxicity to reproduction

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

### Assessment developmental toxicity

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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## 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 invertebrates

EC50 (Daphnia magna (Water flea)) = 2,4 mg/l  
Exposure time: 48 h

#### Toxicity to aquatic plants

EC50 (Raphidocelis subcapitata (freshwater green alga)) = 0,058 mg/l  
Growth rate; Exposure time: 96 h

### 12.2 Persistence and degradability

#### Biodegradability

Aclonifen:  
Not rapidly biodegradable

#### Koc

Aclonifen: Koc: 5318 - 10612

### 12.3 Bioaccumulative potential

#### Bioaccumulation

Aclonifen: Bioconcentration factor (BCF) 2.896  
Potential bioaccumulation

### 12.4 Mobility in soil

#### Mobility in soil

Aclonifen: Immobile in soil

### 12.5 Results of PBT and vPvB assessment

#### PBT and vPvB assessment

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 Other adverse effects

#### Additional ecological

No other effects to be mentioned.



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## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

<b>Product</b>	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.
<b>Contaminated packaging</b>	Not completely emptied packagings should be disposed of as hazardous waste.
<b>Waste key for the unused product</b>	<b>02 01 08*</b> agrochemical waste containing hazardous substances

## SECTION 14: TRANSPORT INFORMATION

### ADR/RID/ADN

14.1 UN number	<b>3082</b>
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
Hazard no.	90

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	<b>3082</b>
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 Marine pollutant	YES

### IATA

14.1 UN number	<b>3082</b>
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

### 14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.





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

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

#### Further information

WHO-classification: III (Slightly hazardous)

### 15.2 Chemical safety assessment

A chemical safety assessment is not required.

## SECTION 16: OTHER INFORMATION

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

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H351	Suspected of causing cancer.
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.

### 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
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified



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NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

**Reason for Revision:** Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 8: Exposure Controls / Personal Protection.

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