

# Safety Data Sheet



## Sakura® Flow Herbicide

Version 1 / AUS  
102000034768

Revision Date: 02.05.2019  
Print Date: 06.05.2019

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Trade name** Sakura® Flow Herbicide  
**Product code (UVP)** 85344501

#### 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 Pty Ltd  
ABN 87 000 226 022  
Level 1, 8 Redfern Road  
3123 Hawthorn East  
Victoria  
Australia

**Telephone** (03) 9248 6888

**Telefax** (03) 9248 6800

**Responsible Department** 1800 804 479 Technical Information Service

**Website** [www.crop.bayer.com.au](http://www.crop.bayer.com.au)

#### 1.4 Emergency telephone no.

**Emergency telephone no.** 1800 033 111 IXOM Operations Pty Ltd

### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification in accordance with Australian GHS Regulation

Carcinogenicity: Category 2

H351 Suspected of causing cancer.

Specific target organ toxicity - repeated exposure: Category 2

H373 May cause damage to organs through prolonged or repeated exposure.

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

Hazard label for supply/use required.

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

Pyroxasulfone

**Signal word:** Warning

##### Hazard statements

H351 Suspected of causing cancer.

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H373 May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe spray.  
P280 Wear protective gloves/ protective clothing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P314 Get medical advice/ attention if you feel unwell.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

No other hazards known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature

Pyroxasulfone 480 g/l  
Suspension concentrate (=flowable concentrate)(SC)

Chemical name	CAS-No.	Concentration [%]
Pyroxasulfone	447399-55-5	40.00
1,2-Propanediol	57-55-6	>= 5.00 - <= 15.00
Other ingredients (non-hazardous) to 100%		

## SECTION 4. FIRST AID MEASURES

**If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.**

### 4.1 Description of first aid measures

**Inhalation** Move the victim to fresh air and keep at rest. If symptoms persist, call a physician.

**Skin contact** Take off contaminated clothing and shoes immediately. Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

**Symptoms** To date no symptoms are known.



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### 4.3 Indication of any immediate medical attention and special treatment needed

**Treatment** Treat symptomatically. There is no specific antidote. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.

## SECTION 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable** Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Sand

**5.2 Special hazards arising from the substance or mixture** In the event of fire the following may be released: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Hydrogen fluoride, Hydrogen cyanide (hydrocyanic acid)

### 5.3 Advice for firefighters

**Special protective equipment for firefighters** In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

**Further information** Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

**Hazchem Code** •3Z

## SECTION 6. ACCIDENTAL RELEASE MEASURES

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

**Precautions** Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment. Keep unauthorized people away.

**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** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

**Additional advice** Inform appropriate authorities immediately if contamination occurs.

**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

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- Advice on safe handling** 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. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).
- 7.2 Conditions for safe storage, including any incompatibilities**
- Requirements for storage areas and containers** Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Store in original container. Keep away from direct sunlight.
- Advice on common storage** Keep away from food, drink and animal feedingstuffs.

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
1,2-Propanediol (Total vapour and particulates.)	57-55-6	474 mg/m <sup>3</sup> /150 ppm (TWA)	12 2011	AU NOEL
1,2-Propanediol (Particulate.)	57-55-6	10 mg/m <sup>3</sup> (TWA)	12 2011	AU NOEL

#### 8.2 Exposure controls

- Respiratory protection** Not required; except in case of aerosol formation. 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** Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm). Wash when contaminated and 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.
- Eye protection** Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).
- Skin and body protection** Wear standard coveralls and Category 3 Type 4 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.
- General protective measures** In normal use and handling conditions please refer to the label

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and/or leaflet. In all other cases the above mentioned recommendations would apply.

### Engineering Controls

**Advice on safe handling** Use only in area provided with appropriate exhaust ventilation.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	suspension
<b>Colour</b>	white to light beige
<b>Odour</b>	slight, characteristic
<b>pH</b>	6.0 - 8.0 (100 %) (23 °C)
<b>Density</b>	1.20 g/cm <sup>3</sup> ( 20 °C)
<b>Partition coefficient: n-octanol/water</b>	Pyroxasulfone: log Pow: 2.39 (25 °C) (pH 8.7)
<b>Viscosity, dynamic</b>	150 - 300 mPa.s ( 20 °C) Velocity gradient 20 /s 30 - 130 mPa.s ( 20 °C) Velocity gradient 100 /s

**9.2 Other information** Further safety related physical-chemical data are not known.

## 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 known.

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

**10.5 Incompatible materials** Strong acids, Strong bases

**10.6 Hazardous decomposition products** Thermal decomposition can lead to release of:  
Oxides of carbon  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides  
Hydrogen fluoride  
Hydrogen cyanide (hydrocyanic acid)

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

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<b>Acute oral toxicity</b>	LD50 (Rat) > 2,000 mg/kg Test conducted with a similar formulation.
<b>Acute inhalation toxicity</b>	LC50 (Rat) 5.8 mg/l Exposure time: 4 h Test conducted with a similar formulation.
<b>Acute dermal toxicity</b>	LD50 (Rat) > 2,000 mg/kg Test conducted with a similar formulation.
<b>Skin corrosion/irritation</b>	No skin irritation (Rabbit) Test conducted with a similar formulation.
<b>Serious eye damage/eye irritation</b>	slight irritation (Rabbit) Test conducted with a similar formulation.
<b>Respiratory or skin sensitisation</b>	Non-sensitizing. (Guinea pig)

### Assessment mutagenicity

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

### Assessment carcinogenicity

Pyroxasulfone was not carcinogenic in lifetime feeding studies in mice. Pyroxasulfone caused an increased incidence of tumours in rats in the following organ(s): urinary bladder. The tumours seen with Pyroxasulfone were caused through a non-genotoxic mechanism, which is not relevant at low doses.

### Assessment toxicity to reproduction

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

### Assessment developmental toxicity

Pyroxasulfone did not cause developmental toxicity in rats and rabbits.

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

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

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

Pyroxasulfone caused specific target organ toxicity in experimental animal studies in the following organ(s): Liver, Kidney, urinary bladder, Heart.

### Aspiration hazard

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

### Information on likely routes of exposure

May be harmful if inhaled.  
May be harmful if absorbed through skin.  
May cause eye irritation.  
Harmful if swallowed.

### Early onset symptoms related to exposure

Refer to Section 4

### Delayed health effects from exposure

Refer to Section 11

### Exposure levels and health effects



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Refer to Section 4

### Interactive effects

Not known

### When specific chemical data is not available

Not applicable

### Mixture of chemicals

Refer to Section 2.1

### Further information

No further toxicological information is available.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Toxicity to fish

LC50 (Oncorhynchus mykiss (rainbow trout)) > 2.2 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient pyroxasulfone.

LC50 (Lepomis macrochirus (Bluegill sunfish)) > 2.8 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient pyroxasulfone.

#### Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) > 4.4 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient pyroxasulfone.

#### Toxicity to aquatic plants

EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.00079 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient pyroxasulfone.

#### Toxicity to other organisms

LD50 (Colinus virginianus (Bobwhite quail)) > 2,250 mg/kg  
The value mentioned relates to the active ingredient pyroxasulfone.

LD50 (Apis mellifera (bees)) 0.1mg/bee  
Exposure time: 48 h  
The value mentioned relates to the active ingredient pyroxasulfone.

### 12.2 Persistence and degradability

#### Biodegradability

Pyroxasulfone:  
Not rapidly biodegradable

#### Koc

Pyroxasulfone: Koc: 95

### 12.3 Bioaccumulative potential

#### Bioaccumulation

Pyroxasulfone:  
Does not bioaccumulate.

### 12.4 Mobility in soil

#### Mobility in soil

Pyroxasulfone: Mobile in soils

### 12.5 Other adverse effects

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**Additional ecological information** No other effects to be mentioned.

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Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Do not burn empty containers or product. Do not reuse container for any other purpose.

### SECTION 14. TRANSPORT INFORMATION

#### ADG

UN number	<b>3082</b>
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYROXASULFONE SOLUTION)
Hazchem Code	•3Z

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

#### IMDG

UN number	<b>3082</b>
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYROXASULFONE SOLUTION)

#### IATA

UN number	<b>3082</b>
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYROXASULFONE SOLUTION )





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### SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994  
Australian Pesticides and Veterinary Medicines Authority approval number: 82979

#### SUSMP classification (Poison Schedule)

Schedule 6 (Standard for the Uniform Scheduling of Medicines and Poisons)

### SECTION 16. OTHER INFORMATION

**Trademark information**      Sakura® is a Registered Trademark of the Kumiai Chemical Industry Co Ltd.

#### 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
AU OEL	Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
CAS-Nr.	Chemical Abstracts Service number
CEILING	Ceiling Limit Value
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
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
OES BCS	OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"
PEAK	PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SK-SEN	Skin sensitizer
SKIN_DES	SKIN_DES: Skin notation: Absorption through the skin may be a significant source of

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	exposure.
STEL	STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
TWA	TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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