

# Safety data sheet

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BASF Safety data sheet

Date / Revised: 18.04.2023

Product: **Regalis® Plus Plant Growth Regulator**

Version: 5.0

(30641223/SDS\_CPA\_AU/EN)

Date of print: 12.11.2024

## 1. Substance/preparation and manufacturer/supplier identification

### Product name:

**Regalis® Plus Plant Growth Regulator**

Use: crop protection product, growth regulator

#### Manufacturer/supplier:

BASF Australia Limited (ABN 62 008 437 867)

Level 23, 40 City Road, Southbank

Victoria 3006, AUSTRALIA

Telephone: +61 3 8855-6600

#### Emergency information:

BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]

BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

## 2. Hazard identification

Classification of the substance and mixture:

Skin sensitization: Cat.1

Label elements and precautionary statement:

Pictogram:



Signal Word:

Warning

Hazard Statement:

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H317 May cause an allergic skin reaction.

## Precautionary Statement:

P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P103 Read carefully and follow all instructions.

## Precautionary Statements (Prevention):

P280 Wear protective gloves.  
 P261 Avoid breathing dust or fume.  
 P272 Contaminated work clothing should not be allowed out of the workplace.

## Precautionary Statements (Response):

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 P333 + P313 If skin irritation or rash occurs: Get medical attention.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.

## Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

## Other hazards which do not result in classification:

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

### 3. Composition/information on ingredients

#### Chemical nature

Substance nature: mixture

crop protection product, growth regulator, water dispersible granules

#### **Hazardous ingredients**

prohexadione calcium

Content (W/W): 9.94 %	Aquatic Acute: Cat. 1
CAS Number: 127277-53-6	Aquatic Chronic: Cat. 2

Ammonium sulphate

Content (W/W): < 50 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 7783-20-2	Aquatic Acute: Cat. 3

sodium hydrogen sulphate

Content (W/W): < 30 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 7681-38-1	Eye Dam./Irrit.: Cat. 1

Oxirane, methyl-, polymer with oxirane

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Content (W/W): < 15 %  
CAS Number: 9003-11-6

Acute Tox.: Cat. 5 (oral)

Lignosulfonic acid, sodium salt  
Content (W/W): < 15 %  
CAS Number: 8061-51-6

Silicon dioxide  
Content (W/W): < 10 %  
CAS Number: 7631-86-9

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## 4. First-Aid Measures

General advice:  
Remove contaminated clothing.

If inhaled:  
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:  
Wash thoroughly with soap and water

On contact with eyes:  
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:  
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Note to physician:  
Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far  
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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## 5. Fire-Fighting Measures

Suitable extinguishing media:  
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:  
carbon dioxide

Specific hazards:  
carbon monoxide, carbon dioxide, hydrogen chloride, nitrogen oxides, sulfur oxides, silicon oxides, halogenated compounds  
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:  
Wear self-contained breathing apparatus and chemical-protective clothing.

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Further information:

Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## 6. Accidental Release Measures

Personal precautions:

Avoid dust formation. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Avoid raising dust. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

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## 7. Handling and Storage

Handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:

Avoid dust formation. Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight. Protect against moisture.

Storage stability:

Storage duration: 36 Months

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

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## 8. Exposure controls and personal protection

Components with occupational exposure limits

Silicon dioxide, 7631-86-9;

TWA value 2 mg/m<sup>3</sup> (OEL (AU)), Respirable fraction  
TWA value 2 mg/m<sup>3</sup> (AU NOEL), Respirable dust  
amorphous silica  
TWA value 2 mg/m<sup>3</sup> (AU NOEL), Respirable dust  
TWA value 10 mg/m<sup>3</sup> (ACGIHTLV), Inhalable particles  
TWA value 3 mg/m<sup>3</sup> (ACGIHTLV), Respirable particles

#### Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Suitable respiratory protection for higher concentrations or long-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

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## 9. Physical and Chemical Properties

Form: solid  
Colour: light brown  
Odour: faint odour, sweetish  
Odour threshold: Not determined due to potential health hazard by inhalation.

pH value: approx. 2 - 4  
(1 %(m), approx. 20 °C)

Melting point: The product has not been tested.

Boiling point: The product has not been tested.

Flash point: not applicable, the product is a solid

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Evaporation rate:	not applicable	
Flammability (solid/gas):	not highly flammable	(Directive 92/69/EEC, A.10)
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Thermal decomposition:	120 °C , 10 kJ/kg (onset temperature)	(DSC (OECD 113))
	175 °C , 30 kJ/kg (onset temperature)	(DSC (OECD 113))
	235 °C , 30 kJ/kg (onset temperature)	(DSC (OECD 113))
	315 °C , 30 kJ/kg (onset temperature)	(DSC (OECD 113))
Self ignition:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1. Temperature: approx. 375 °C	(Method: Directive 92/69/EEC, A.16)
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	not fire-propagating	(Directive 92/69/EEC, A.17)
Vapour pressure:	not applicable	
Bulk density:	approx. 831 - 895 kg/m <sup>3</sup> (20 °C)	
Relative vapour density (air):	not applicable	
Solubility in water:	dispersible	

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Partitioning coefficient n-octanol/water (log Pow):  
The statements are based on the  
properties of the individual  
components.

Information on: prohexadione calcium  
Partitioning coefficient n-octanol/water (log Pow): -2.9  
(20 °C)

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Viscosity, dynamic:  
not applicable, the product is a solid

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## 10. Stability and Reactivity

Conditions to avoid:  
See SDS section 7 - Handling and storage.

Thermal decomposition:	120 °C, 10 kJ/kg (DSC (OECD 113)) (onset temperature)
Thermal decomposition:	175 °C, 30 kJ/kg (DSC (OECD 113)) (onset temperature)
Thermal decomposition:	235 °C, 30 kJ/kg (DSC (OECD 113)) (onset temperature)
Thermal decomposition:	315 °C, 30 kJ/kg (DSC (OECD 113)) (onset temperature)
Thermal decomposition:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Substances to avoid:  
strong acids, strong bases, strong oxidizing agents

Hazardous reactions:  
No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products:  
No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:  
The product is stable if stored and handled as prescribed/indicated.

Reactivity:  
No hazardous reactions if stored and handled as prescribed/indicated.

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## 11. Toxicological Information

**Routes of exposure**

**Acute oral toxicity**

Experimental/calculated data:

LD50rat (oral): > 2,000 mg/kg (OECD Guideline 423)

No mortality was observed.

#### **Acute inhalation toxicity**

LC50 rat (by inhalation): > 5.4 mg/l 4 h (OECD Guideline 403)

No mortality was observed.

#### **Acute dermal toxicity**

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

#### **Assessment of acute toxicity**

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

#### **Symptoms**

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

(Further) symptoms and / or effects are not known so far

#### **Irritation**

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: (OECD Guideline 404)

Serious eye damage/irritation rabbit: (OECD Guideline 405)

#### **Respiratory/Skin sensitization**

Assessment of sensitization:

Sensitization after skin contact possible.

Experimental/calculated data:

Mouse Local Lymph Node Assay (LLNA) mouse: (OECD Guideline 429)

#### **Germ cell mutagenicity**

Assessment of mutagenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

#### **Carcinogenicity**

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

#### **Reproductive toxicity**



**Assessment of reproduction toxicity:**

The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

**Developmental toxicity****Assessment of teratogenicity:**

The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

**Specific target organ toxicity (single exposure)**

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

**Repeated dose toxicity and Specific target organ toxicity (repeated exposure)****Assessment of repeated dose toxicity:**

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Silicon dioxide

**Assessment of repeated dose toxicity:**

Repeated inhalative uptake of particles/dust reaching the alveoli may cause damage to the lungs.

**Aspiration hazard**

No aspiration hazard expected.

**Other relevant toxicity information**

Misuse can be harmful to health.

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**12. Ecological Information****Ecotoxicity****Assessment of aquatic toxicity:**

There is a high probability that the product is not acutely harmful to aquatic organisms.

**Toxicity to fish:**

LC50 (96 h) > 100 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 92/69/EEC, C.1, static)

**Aquatic invertebrates:**

EC50 (48 h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

**Aquatic plants:**

EC10 (7 d) 5.3 mg/l (growth rate), Lemna gibba (OECD guideline 221, semistatic)

EC50 (7 d) > 100 mg/l (growth rate), Lemna gibba (OECD guideline 221, semistatic)

EC10 (72 h) 56.3 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

EC50 (72 h) > 100 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

### **Mobility**

Assessment transport between environmental compartments:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: prohexadione calcium

Assessment transport between environmental compartments:

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

### **Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: prohexadione calcium

Assessment biodegradation and elimination (H<sub>2</sub>O):

According to OECD criteria the product is not readily biodegradable but inherently biodegradable.

### **Bioaccumulation potential**

Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: prohexadione calcium

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

### **Additional information**

Other ecotoxicological advice:

Do not discharge product into the environment without control.

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## **13. Disposal Considerations**

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:  
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

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## 14. Transport Information

### Domestic transport:

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

### Sea transport

#### IMDG

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
	Marine pollutant: no
Special precautions for user	None known

### Air transport

#### IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
Proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

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## 15. Regulatory Information

### Other regulations

To avoid risks to man and the environment, comply with the instructions for use.

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Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Schedule 5

APVMA Approval Number : 69629

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## 16. Other Information

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Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.