

## SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 of 18 December 2006 (REACH)

# SMARTGRASS

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

<b>Product label name</b>	SmartGrass Gibberellic acid A3, 40% water soluble granules GIFAP code: SG
<b>Use</b>	Plant growth regulator (agricultural use)
<b>Supplier</b>	VALENT BIOSCIENCES CORPORATION 870 Technology Way, Suite 100 Libertyville, Illinois 60048 USA Tel.: +1 847 9684700
<b>Distributed by</b>	Interfarm UK Ltd. 36, Newgate Street Doddington Cams. UK. Tel 0044(0)1354 741414 Fax 0044(0)1354 741004    www.interfarm.co.uk

## 2. HAZARD IDENTIFICATION

<b>Chemical description</b>	Gibberellic acid A3, 40% water soluble granules GIFAP code: SG
-----------------------------	---

Not classified as hazardous according EU directives 1999/45/EC, 2001/60/EC and 2006/8/EC

**Classification based on** Toxicology of active substance, ecotoxicology of the preparation, according to 1999/45/EC

<b>Symbol(s)</b>	none
<b>R(isk) phrase(s)</b>	none.
<b>S(afety) phrase(s)</b>	S23: Do not breathe spray S51: Use only in well-ventilated areas

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a preparation in conformance to EC directives.

Information on hazardous ingredients:

**Chemical description** Gibberellic acid A3, 40% water soluble granules

### Composition/Information on hazardous ingredients

Number	% w/w	CAS number	Chemical name
1	> 43	77-06-5	GA3: (3S,3aR,4S,4aS,7S,9aR,9bR,12S)-7,12-dihydroxy-3-methyl-6-methylene-2-oxoperhydro-4a,7-methano-9b, 3-propenoazuleno[1,2-b]furan-4-carboxylic acid

Number	EC number	Annex-1 number	Symbol(s)	Risk phrase(s)
1	NA	NA	none	none

**Other information** /

## 4. FIRST AID MEASURES

<b>Symptoms and effects</b>	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis.
<b>First aid</b>	
<b>General</b>	In cases of doubt, seek medical attention.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, seek medical advice.
<b>Skin</b>	Remove contaminated clothing. Wash immediately with soap and water.
<b>Eye</b>	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.
<b>Ingestion</b>	Rinse mouth. Never induce vomiting in unconscious or confused persons. Always seek medical attention.
<b>Advice to physician</b>	Symptomatic treatment is advised.

## SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 of 18 December 2006 (REACH)

# SMARTGRASS

### 5. FIRE-FIGHTING MEASURES

<b>Extinguishing media</b>	Dry chemical powder, carbon dioxide, foam, sand, water.
<b>Unsuitable extinguishing media</b>	none known.
<b>Special exposure hazards</b>	none known.
<b>Hazardous decomposition/combustion products</b>	None known.
<b>Protective equipment</b>	Wear self-contained breathing apparatus. Wear suitable protective clothing and eye/face protection.
<b>Other information</b>	Water used to extinguish a fire should not be allowed to enter the drainage system or watercourses.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Do not breathe dust. For personal protection see section 8.
<b>Environmental precautions</b>	Do not allow to escape into sewage system or water courses.
<b>Methods for cleaning up</b>	Clean up spills immediately. Sweep up and dispose as waste following local regulations. Do not wash residues into drains or other waterways.

### 7. HANDLING AND STORAGE

<b>Handling</b>	The usual precautions for handling chemicals should be observed. For personal protection see section 8.
<b>Fire and explosion prevention</b>	No specific recommendations.
<b>Storage requirements</b>	Store in a dry and cool place. Keep container in a well-ventilated place. Keep away from heat.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering controls</b>	Provide adequate ventilation.
<b>Exposure limits</b>	No exposure limits have been established for this material.
<b>Personal protection</b>	
<b>Respiratory</b>	The usual precautions for handling chemicals should be observed.
<b>Hand</b>	Wear protective rubber gloves
<b>Eye</b>	Wear safety goggles or face shield.
<b>Skin and body</b>	Wear suitable protective clothing.
<b>Other information</b>	Launder clothes before reuse.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	granule
<b>Colour</b>	white
<b>Odour</b>	odourless
<b>Boiling point/range</b>	not determined
<b>Freezing point/range</b>	not applicable
<b>Flash point</b>	not applicable
<b>Flammability</b>	not flammable (based on the ingredients)
<b>Autoignition temperature</b>	not determined
<b>Explosive properties</b>	not explosive (based on the ingredients)
<b>Explosion limits</b>	not determined
<b>Oxidising properties</b>	not oxidising (based on the ingredients)
<b>Vapour pressure</b>	not determined
<b>Density</b>	not determined
<b>Bulk density</b>	0.53 – 0.54 g/ml (20-25 °C)
<b>Solubility in water</b>	soluble in water (solubility of GA3 = 4.6 g/l)
<b>Solubility in other solvents</b>	not determined

**SAFETY DATA SHEET**

According to Regulation (EC) No 1907/2006 of 18 December 2006 (REACH)

**SMARTGRASS**

pH value	mean value 2.82 (10% solution in water at 20-25 °C)
Partition coefficient n-octanol/water	not determined
Relative vapour density (air = 1)	not determined
Viscosity	not applicable
Surface tension	not determined

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage and handling conditions (see section 7).
<b>Conditions to avoid</b>	Avoid high temperatures.
<b>Materials to avoid</b>	None known.
<b>Hazardous decomposition products</b>	None known.

**11. TOXICOLOGICAL INFORMATION**

No experimental toxicological data are available on the preparation as such. The following data are applicable to the ingredient(s) listed below:

<b>Name</b>	<b>Active substance <i>Gibberellic acid A3, technical grade</i></b>
<b>Acute toxicity</b>	
<b>Oral LD50</b>	rat: >5000 mg/kg
<b>Dermal LD50</b>	rabbit: >2000 mg/kg
	rat: >2000 mg/kg
<b>Inhalation LC50</b>	rat (4 hours): >1.74 mg/l (maximum feasible concentration, whole body)
	rat (4 hours): >1.44 mg/l (maximum feasible concentration, nose-only)
<b>Irritation</b>	
<b>Skin</b>	non-irritant
<b>Eye</b>	slightly irritant. Not considered irritant in the sense of 2001/59/EC
<b>Sensitization</b>	not sensitizing (maximisation test)
<b>Other toxicological information</b>	Genotoxicity: negative. Teratogenicity in rat: negative

**12. ECOLOGICAL INFORMATION**

<b>Name</b>	<b>Gibberellic acid A3, 40% water soluble granules</b>
<b>Ecotoxicity</b>	
<b>Algae</b>	Acute toxicity, 72h-EbC50 & ErC50 ( <i>Pseudokirchneriella subcapitata</i> ): > 100 mg/l
<b>Bees</b>	Acute oral toxicity, 48h-LD50 ( <i>Apis mellifera</i> ): >285 µg /bee Acute contact toxicity, 48h-LD50 ( <i>Apis mellifera</i> ): >250 µg /bee

The following data are applicable to the ingredient(s) listed below:

<b>Name</b>	<b>Active substance <i>Gibberellic acid A3, technical grade</i></b>
<b>Ecotoxicity</b>	
<b>Fish</b>	Acute toxicity, 96h-LC50 ( <i>Oncorhynchus mykiss</i> ): 210 mg/l
<b>Daphnia</b>	Acute toxicity, 48h-EC50 ( <i>Daphnia magna</i> ): 488 mg/l
<b>Birds</b>	Acute oral toxicity, LD50 (Mallard duck): >2000 mg/kg (Northern bobwhite): >2250 mg/kg
<b>Earthworm</b>	Acute toxicity, 14d-LC50 ( <i>Eisenia foetida</i> ): >1111 mg/kg soil
<b>Fate</b>	
<b>Degradation Biotic</b>	Naturally broken down in the environment.
<b>Degradation Abiotic</b>	DT50: 14.6 hours at pH 1.2 (37°C), 164 hours at pH 7 (30°C), 46 hours at pH 9 (30°C)

**13. DISPOSAL CONSIDERATIONS**

<b>Product</b>	According to local regulations. For further advice contact manufacturer
<b>Contaminated packaging</b>	According to local regulations

## SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 of 18 December 2006 (REACH)

# SMARTGRASS

---

## 14. TRANSPORT INFORMATION

---

### Land transport: ADR/RID

<b>ADR/RID class</b>	not restricted	<b>Packing group</b>	not relevant
<b>Label(s)</b>	not relevant	<b>Substance Identification no.</b>	not relevant
<b>Hazard Identification no.</b>	not relevant	<b>UN number</b>	none
<b>Proper shipping name</b>	not relevant		

### Sea transport: IMO/IMDG code

<b>Class</b>	not restricted	<b>UN number</b>	none
<b>Marine pollutant</b>	no	<b>Packing group</b>	not relevant
<b>EMS</b>	not relevant		
<b>Proper shipping name</b>	not relevant		

### Air transport: ICAO-TI/IATA-DGR

<b>Class</b>	not restricted	<b>UN number</b>	none
<b>Proper shipping name</b>	not relevant	<b>Packing group</b>	not relevant

---

## 15. REGULATORY INFORMATION

---

See hazard identification in section 2.

As appropriate, the classification is based on:

- directive 2001/59/EC (results of the experimental studies),
- directives 1999/45/EC, 2001/60/EC, 2006/8/EC (classification based on the concentration of active substance and ingredients),
- directive 2003/82/EC for pesticides (special risks and safety precautions).

The safety data sheet is written according to Regulation (EC) No 1907/2006 of 18 December 2006 (REACH).

---

## 16. OTHER INFORMATION

---

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

### Full text of risk phrase(s) used in this document:

none.

### History

<b>Date of revision</b>	19 November 2010
<b>Revision</b>	1.10

Change was made in section no 1, to include a new trade name.