

# SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)  
and Commission Regulation (EU) No 453/2010

## SMARTGRASS



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

#### 1.1. Product identifier

##### SMARTGRASS

Gibberellic acid A3, 40% water soluble granules  
GIFAP code: SG  
EC number: not applicable.

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

Plant growth regulator (agricultural use)  
Not for public use

#### 1.3. Details of the supplier of the safety data sheet

INTERFARM (UK) LIMITED  
36 Newgate Street  
Doddington  
Cambridgeshire PE15 0SR  
United Kingdom  
Tel.: +44 (0)1354 741414  
email: [technical@interfarm.co.uk](mailto:technical@interfarm.co.uk)

#### Manufacturer of the product

VALENT BIOSCIENCES CORPORATION  
870 Technology Way, Suite 100  
Libertyville, Illinois 60048  
USA  
Tel.: +1 847 9684700

#### 1.4. Emergency Telephone number 24/24hrs

UK & Ireland; +44 (0)333 333 9962

### 2. HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

Not classified as hazardous according to regulation (EC) No 1272/2008 (CLP)

Signal word(s) none

Pictogram (s) none

Hazard statement(s) none

#### 2.2. Label elements

Signal word(s) none

Pictogram (s) none

Hazard statement(s) none

#### Precautionary statement(s)

P261: Avoid breathing spray.  
P285: In case of inadequate ventilation wear respiratory protection.  
P501 (UK): 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.  
EUH 401: To avoid risks to human health and the environment, comply with the instructions for use.

#### Special risks and safety precautions (Commission Regulation (EU) 547/2011):

##### General provisions

SP 1: Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads)

##### Specific safety precautions

none

#### 2.3. Other hazards

None known.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. This product is to be considered as a mixture in conformance to EU regulations.

#### Composition/Information on main ingredients

Number	% w/w	CAS number	Chemical name
1	40	77-06-5	GA3: (3S,3aS,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 listing	Regl 1272/2008 Pict.	Hazard statements
1	201-001-0	yes	none	none

Other information code ID: ABG-3206

### 4. FIRST AID MEASURES

#### 4.1. Description of first aid measures

<b>General</b>	In all 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 skin immediately with 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.

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

Dust may be irritating to the respiratory tract and cause symptoms of bronchitis.

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

Symptomatic treatment is advised.

### 5. FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

<b>Suitable Extinguishing media</b>	Dry chemical powder, carbon dioxide, foam, sand, water.
<b>Unsuitable extinguishing media</b>	None known.

#### 5.2. Special hazards arising from the substance or mixture

No hazardous combustion products known.

#### 5.3. Advice for fire-fighters

Wear self-contained breathing apparatus. Wear suitable protective clothing and eye/face protection.

#### Other information

Water used to extinguish a fire should not be allowed to enter the drainage system or watercourses.

### 6. ACCIDENTAL RELEASE MEASURES

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

<b>For non-emergency personnel</b>	Do not breathe dust. Wear protective gloves, safety goggles or face shield, and suitable protective clothing. Remove ignition sources. Evacuate the danger area.
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<b>For emergency responders</b>	Do not breathe dust. Wear protective nitrile gloves, safety goggles or face shield, and suitable protective clothing. Remove ignition sources. Evacuate the danger area or consult an expert.
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#### 6.2. Environmental precautions

Do not allow escape into sewage system or watercourses. Do not wash residues into drains or other waterways.

#### 6.3. Methods and material for containment and cleaning up

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<b>Containment of a spill</b>	Do not allow escape into sewage system or watercourses.
<b>Clean-up procedures</b>	Clean up spills immediately. Sweep up and place into sealable containers. Dig up heavily contaminated soil and place into drums. Use a damp cloth to clean floors and other objects, and also place in sealable container. Dispose of all waste and contaminated clothing in the same manner as waste chemicals (i.e. via an authorized disposal facility). Do not wash residues into drains or other waterways.
<b>6.4. Reference to other sections</b>	For personal protection see section 8.

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## 7. HANDLING AND STORAGE

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<b>7.1. Precautions for safe 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>7.2. Conditions for safe storage, including any incompatibilities</b>	
<b>Storage requirements</b>	Store in a dry and cool place. Keep container in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Do not drink, eat and smoke in work areas.
<b>Other information</b>	Do not mix with water (except for the normal preparation).
<b>7.3. Specific end use(s)</b>	See label on the container.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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<b>8.1. Control parameters</b>	There is no national exposure limit for this product. No chemical safety report is required for this kind of product.
<b>8.2. Exposure controls</b>	
<b>Appropriate engineering controls</b>	Provide adequate ventilation.
<b>Individual protection measures</b>	
<b>Respiratory</b>	In case of dust formation, use dust mask.
<b>Hand</b>	Wear protective gloves of nitrile.
<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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

<b>Name</b>	<b><i>Gibberellic acid A3, 40% water soluble granules</i></b>
<b>Appearance</b>	granules (Visual assessment)
<b>Colour</b>	white (Visual assessment)
<b>Odour</b>	odourless (Olfactory assessment)
<b>Odour threshold</b>	not determined
<b>pH value</b>	2.8 (1% dilution in water, at room temperature) (CIPAC MT 75.3)
<b>Melting point/freezing point</b>	not applicable
<b>Initial boiling point &amp; boiling range</b>	not determined
<b>Flash point</b>	not applicable
<b>Evaporation rate</b>	not applicable
<b>Flammability</b>	not flammable (OPPTS 830.6315)
<b>Upper/lower flammability or explosive limits</b>	not determined
<b>Vapour pressure</b>	not determined (GA3: $1 \times 10^{-5}$ Pa at 25 °C (extrapolated), (OECD 104)
<b>Vapour density</b>	not determined
<b>Relative 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, 25°C, EEC A.6)
<b>Solubility in other solvents</b>	not determined
<b>Partition coefficient n-octanol/water</b>	not determined
<b>Autoignition temperature</b>	not determined
<b>Decomposition temperature</b>	the active substance decomposes at temperatures > 200°C (OECD 113)
<b>Dynamic viscosity</b>	Similar to that of water (OPPTS 830.7100)

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Kinematic viscosity	not applicable
Explosive properties	not explosive (OPPTS 830.6316)
Oxidising properties	not oxidising (OPPTS 830.6314)

### 9.2. Other information

Relative vapour density (air = 1)	not determined
Surface tension	not determined

## 10. STABILITY AND REACTIVITY

10.1. Reactivity	Stable under recommended storage and handling conditions (see section 7).
10.2. Chemical stability	Stable under recommended storage and handling conditions (see section 7).
10.3. Possibility of hazardous reactions	None known.
10.4. Conditions to avoid	Avoid high temperature, light, humidity.
10.5. Incompatible materials	None known.
10.6. Hazardous decomposition products	No hazardous combustion products known in contact with fire (see also section 5).

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

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>	
Oral	LD <sub>50</sub> rat: >5000 mg/kg (OECD 401)
Dermal	LD <sub>50</sub> rat: >2000 mg/kg (OECD 402)
Inhalation	LC <sub>50</sub> rat (4 hours): >4.94 mg/l (nose-only) (OECD 403)
<b>Irritation</b>	
Skin	not irritating (OECD 404)
Eye	mildly irritating (US EPA 40 CFR 60)
<b>Sensitization</b>	not sensitizing (maximisation test) (OECD 406)
<b>Other toxicological information</b>	Genotoxicity: negative (OECD 473, 476, 471, US EPA40-160&792) Teratogenicity (rat, rabbit): NOAEL = 1000 mg/kg bw/day (OECD 414)

Based on the available data, no classification criteria are met for any of these hazard classes.

### Information on likely routes of exposure

This product is for agricultural use, therefore the most probable routes of exposure are via skin or inhalation.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

<b>Name</b>	<b><i>Gibberellic acid A3, 40% water soluble granules</i></b>
<b>Fish</b>	Acute toxicity, 96h-LC <sub>50</sub> ( <i>Cyprinus carpio</i> ): >100 mg/l (Gaitonde Committee Guideline 6.4.0.D.ii)
<b>Daphnia</b>	Acute toxicity, 48h-EC <sub>50</sub> ( <i>Daphnia magna</i> ): >140 mg/l (OECD 202)
<b>Algae</b>	Acute toxicity, 72h- ( <i>Pseudokirchneriella subcapitata</i> ): EbC <sub>50</sub> & ErC <sub>50</sub> > 92 mg/l (mean measured concentration) NOEC <sub>r&amp;b</sub> = 92 mg/l (OECD 201)
<b>Aquatic plant</b>	Acute toxicity, 14d-EC <sub>50</sub> ( <i>Myriophyllum spicatum</i> ): E <sub>r&amp;b</sub> C <sub>50</sub> > 130 mg a.s./l NOEC <sub>r&amp;b</sub> = 100 mg a.s./l (OECD Guideline Proposal, 2013). Acute toxicity, 7d-EC <sub>50</sub> ( <i>Lemna gibba</i> ):

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E<sub>r</sub>C<sub>50</sub> > 946 mg as/l  
E<sub>b</sub>C<sub>50</sub> > 946 mg as/l  
NOAEC = 946 mg as/l (OECD 221)

**Bees** Acute oral toxicity, 48h-LD<sub>50</sub> (*Apis mellifera*): >285 µg /bee (OECD 213)  
Acute contact toxicity, 48h-LD<sub>50</sub> (*Apis mellifera*): >250 µg /bee (OECD 214)

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

**Name** **Active substance Gibberellic acid A3, technical grade**  
**Birds** Acute oral toxicity, LD<sub>50</sub> (Mallard duck): >2000 mg/kg (US EPA FIFRA 71-1)  
**Earthworm** Acute toxicity, 14d-LC<sub>50</sub> (*Eisenia foetida*): > 1111 mg/kg soil (OECD 207)  
**Soil micro organisms** No significant impact on carbon mineralization or nitrogen transformation at up to 100 mg/kg dry soil. (publication)

### 12.2. Persistence and degradability

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

**Name** **Active substance Gibberellic acid A3, technical grade**  
**Degradation Biotic** Not readily biodegradable (OECD 301B)  
**Degradation Abiotic** Hydrolysis: stable in water at pH 4, 7; DT<sub>50</sub> = 46 hours at pH 9 (30°C, OECD 111)  
Photolysis: DT<sub>50</sub> = 249-271 hours at pH 5 and 7.5 (12-Nohsan-No.8147 of MAFF)

#### Biological methods for sewage treatment

3h-EC<sub>50</sub> activated sludge: > 100 mg/L (OECD 209)

### 12.3. Bioaccumulative potential

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

**Name** **Active substance Gibberellic acid A3, technical grade**  
Partition coefficient n-octanol/water log Pow : 0.72 in pH 2.2 at 22°C (OECD 107)  
Bio Concentration Factor (BCF) in fish: no bioaccumulation study is necessary.

### 12.4. Mobility in soil

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

**Name** **Active substance Gibberellic acid A3, technical grade**  
Adsorption K<sub>loc</sub> values: 7.125 ml/g for 5 soils (OECD 106)  
Therefore the substance has high mobility, although due to the rapid degradation it is unlikely to be expressed in the environment. (OECD 106)

### 12.5. Results of PBT and vPvB assessment

Not required (no chemical safety report required).

### 12.6. Other adverse effects

No other known adverse effects on the environment.

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Substance and/or Mixture** According to local regulations. For further advice contact manufacturer.  
**Contaminated packaging** According to local regulations.

## 14. TRANSPORT INFORMATION

Land transport ADR/RID, Sea transport IMO/IMDG, Air transport ICAO-TI/IATA-DGR:

**14.1. UN Number** None  
**14.2. UN proper shipping name** Not relevant  
**14.3. Transport hazard class(es)**  
Land transport ADR/RID class: not restricted label: not relevant  
IMO/IMDG code class: not restricted  
Air transport ICAO-TI/IATA-DGR class: not restricted  
**14.4. Packing group** Not relevant  
**14.5. Environmental hazards** Marine pollutant: no  
**14.6. Special precautions for user** EMS: not relevant  
No other special precaution required.

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### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the ICB Code

Not applicable

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## 15. REGULATORY INFORMATION

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

There is no specific regulation/legislation for this mixture.

### 15.2. Chemical safety assessment

No chemical safety assessment is required for this mixture.

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## 16. OTHER INFORMATION

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### Method for evaluating information referred to in Article 9 of Regulation (EC) No 1272/2008 used for the purpose of classification:

Classification based on tests, and properties of the active substance

**Changes made to the previous version:** Section 1; change to emergency telephone number. Sections 2, 3, 4, 12, were modified to remove any reference to directives 2001/59/EC or 1999/45/EC, add changes due to ATP4 and new ecotox data. [Based on GA340SGCLP/EU/310gb from SCAE]

### Full text of hazard statement(s) used in this document:

None

This information only concerns the above mentioned product for the specific use mentioned and is not valid for such product used in combination with any other product. The information is to our best knowledge correct and complete and is given in good faith as of the date indicated. It is the user's responsibility to use this information as appropriate for his own particular use of this product.