

<b>1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER</b>
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**Product Name:** Sitofex® 10 EC Plant Growth Regulator  
**Other Names:** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
**Product Code:** None  
**Recommended Use:** For increasing berry size in table grapes  
**Supplier:** Maliky Distributors (Mildura) Pty Ltd  
 ACN 096 897 560  
**Address:** Lot 2 Melaleuca Street  
 Buronga NSW 2739  
**Telephone:** (03) 5021 3303  
**Facsimile:** 1800 815 503  
**Website:** www.maliky.com.au  
**Contact:** Technical Manager  
**Emergency Telephone Number:** 1800 039 008

<b>2. HAZARDS IDENTIFICATION</b>
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<b>HAZARDOUS SUBSTANCE – DANGEROUS GOOD</b>
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Will irritate eyes and skin
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**Hazard Designation:** Hazardous according to criteria of NOHSC  
 Highly flammable. Irritant.  
**Risk Phrases:** R11 Highly flammable  
 R36 Irritating to eyes  
 R38 Irritating to skin  
**Safety Phrases:** Not applicable  
**ADG Classification:** Classified as a dangerous good – Class 3 Flammable Liquid  
**SUSDP Classification:** Exempt

<b>3. COMPOSITION / INFORMATION ON INGREDIENTS</b>
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<b>Ingredients:</b>	<b>CAS Number:</b>	<b>Concentration (g/L):</b>
Forchlorfenuron	68157-60-8	10 g/L

Ethanol (ethyl alcohol)	64-17-5	> 60%
Ingredients determined not to be hazardous	-	to 100 %

#### 4. FIRST AID MEASURES

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

- Ingestion:** If patient fully conscious, give two glasses of milk or water at once. Do not induce vomiting. Obtain medical attention immediately.
- Inhalation:** Remove to fresh air. Obtain medical attention after significant exposure.
- Skin Contact:** If on skin, remove contaminated clothing and wash skin thoroughly with soap and water. Obtain medical attention if skin irritation persists. Wash clothing before re-use.
- Eye Contact:** If in eyes, hold eyes open and flood with water for at least 15 minutes and see a doctor.
- First Aid Facilities:** Provide washing facilities in the workplace.
- Symptoms:** Eye and skin irritation. Effects on the CNS are also possible after inhalation.
- Medical Attention:** There is no specific antidote. Symptomatic treatment. If necessary, use gastric lavage and follow-up. If necessary, administer activated charcoal (10-20 g) and sodium sulphate (20 g).

#### 5. FIRE FIGHTING MEASURES

- Extinguishing Media:** Water fog (or fine spray if fog not available), foam, CO<sub>2</sub>, dry powder
- Hazards from Combustion Products:** The following hazardous smoke fumes may be produced:  
Carbon oxides  
Traces of Nitrous gases, Hydrogen chloride
- Precautions for Fire Fighters and Special Protective Equipment:** Keep containers cool with water spray. Do not contaminate surface water.  
Use self-contained breathing apparatus and wear chemical protective suit.
- HAZCHEM Code:** 2[S]E

**6. ACCIDENTAL RELEASE MEASURES****Emergency Procedures:***Personal Precautions:*

When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length rubber gloves and face shield. When using the prepared spray, cotton overalls buttoned to the neck and wrist (or equivalent clothing).

Do not smoke, drink or eat during clean-up procedure.

*Environmental Precautions:*

Prevent spillage from spreading or entering waterways and underground drains.

**Methods and Materials for Containment and Clean Up:**

Stop leaks if possible. Cover with absorbent material, such as sawdust, peat or chemical binding agent, or contain. Fill material along with any contaminated soil etc. into sealable containers. Flush area with water. On completion of cleanup, remove and wash all protective clothing and equipment with detergent and water.

Observe government regulations.

**7. HANDLING AND STORAGE****Handling:***Handling Precautions*

Avoid contact with eyes and skin. Do not inhale vapour, spray mist or aerosol. Ensure good ventilation.

When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length rubber gloves and face shield.

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

Handle in accordance with good industrial hygiene and safety practices.

*Other Precautions:*

Keep away from sources of ignition. No smoking. Take precautions against static discharges. Vapours may form explosive mixtures with air.

**Storage:**

Keep out of reach of children.

Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

Store away from food, drink or animal feeding stuffs.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Exposure Standards:</b>	No exposure limits have been established.
<b>Engineering Controls:</b>	No engineering controls are required for the normal use of this product according to the label. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Biological Limit Values:</b>	No biological limit allocated'.
<b>Personal Protective Equipment:</b>	When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length rubber gloves and face shield. When using the prepared spray, cotton overalls buttoned to the neck and wrist (or equivalent clothing).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Yellowish liquid
<b>Odour:</b>	Alcoholic
<b>Vapour Pressure:</b>	59 hPa at 20°C
<b>Vapour Density:</b>	No data available
<b>Boiling Point:</b>	ca $\geq$ 78°C
<b>Freezing/Melting Point:</b>	No data available
<b>Solubility:</b>	Completely miscible in water (20°C)
<b>Specific Gravity:</b>	0.84 at 20°C
<b>pH:</b>	7.78
<b>Flash Point:</b>	16°C
<b>Flammability (explosive) Limits:</b>	Lower explosion limit 1.5% (V) Upper explosion limit 28% (V)
<b>Auto-Ignition Temperature:</b>	425°C
<b>Octanol/Water Partition Coefficient:</b>	Log P <sub>ow</sub> 3.2 (20°C)
<b>Formulation Type:</b>	Emulsifiable concentrate
<b>Emulsion Properties:</b>	Stable, homogenous emulsions at 5% (v/v)

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Product is stable under normal conditions
<b>Conditions to Avoid:</b>	Keep away from direct sunlight. Keep away from heat and sources of ignition.
<b>Incompatible Materials:</b>	Acids and bases Oxidizing agents
<b>Hazardous Decomposition Products:</b>	Heating can release vapours which can be ignited.
<b>Hazardous Reactions:</b>	None

## 11. TOXICOLOGICAL INFORMATION

<b>Oral Toxicity:</b>	LD <sub>50</sub> Oral (ingestion) Rat = > 2,000 mg/kg
<b>Dermal Toxicity:</b>	LD <sub>50</sub> Dermal (skin contact) Rat = > 2,000 mg/kg
<b>Inhalation Toxicity:</b>	LC <sub>50</sub> Inhalation (4 hour) Rat = > 5.16 mg/L
<b>Skin Irritation:</b>	Rabbit = Moderately irritating (active not irritating)
<b>Eye Irritation:</b>	Rabbit = Irritating (active not irritating)
<b>Sensitisation:</b>	Guinea pigs = Not sensitising
<b>Mutagenicity:</b>	<i>Salmonella typhimurium</i> / <i>Eschericia coli</i> = Negative

### Significant Data with Possible Relevance to Human Health

Chronic overexposure to ethanol may cause liver damage and cirrhosis of the liver, central nervous system depression, headache and dizziness.  
Concentrations substantially above the OEL value may cause narcotic effects.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity Hazard:</b>	Based on our knowledge, the product contains no or only trace amounts of substances possibly dangerous to the environment. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.
<b>Fish Toxicity:</b>	LC <sub>50</sub> (96 hr) Rainbow Trout = 160 mg/L Sitofex 10 EC LC <sub>50</sub> (96 hr) Rainbow Trout = 9.2 mg/L Forchlorfenuron LC <sub>50</sub> (96 hr) Bluegill = 8.8 mg/L Forchlorfenuron
<b>Daphnia Toxicity:</b>	EC <sub>50</sub> (48 hr) <i>Daphnia magna</i> = 348 mg/L Sitofex 10 EC NOEC (48 hr) <i>Daphnia magna</i> = 180 mg/L Sitofex 10 EC EC <sub>50</sub> (48 hr) <i>Daphnia magna</i> = 8 mg/L Forchlorfenuron

<b>Algae Toxicity:</b>	EC <sub>50</sub> (48 hr) <i>Selansturm capricornutum</i> = 27 mg/L Sitofex 10 EC EC <sub>50</sub> (48 hr) <i>Selansturm capricornutum</i> = 3.3 mg/L Forchlorfenuron
<b>Bird Toxicity:</b>	Acute LD <sub>50</sub> Bobwhite = > 2,250 mg/L Forchlorfenuron Dietary LC <sub>50</sub> Bobwhite = > 5,620 mg/L Forchlorfenuron Dietary LC <sub>50</sub> Mallard = > 5,620 mg/L Forchlorfenuron
<b>Bee Toxicity:</b>	Non toxic to bees
<b>Earthworm Toxicity:</b>	Non toxic to earthworms
<b>Persistence and Degradability:</b>	No data available
<b>Mobility:</b>	No data available

### 13. DISPOSAL CONSIDERATIONS

<b>Disposal Methods, including Disposal of Containers:</b>	<p>1) <i>After Intended Use:</i> Triple or (preferably) pressure rinse container before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on site. Break, puncture, crush and bury rinsed container in a local authority landfill. If not available, bury container below 500 mm in a marked disposal pit specifically set up for this purpose clear of waterways, vegetation and roots. Empty container and product should not be burnt.</p> <p>2) <i>After Spill or Accident:</i> Dispose of sealed containers at an approved local waste disposal site marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.</p>
<b>Special Precautions for Landfill or Incineration:</b>	Dispose of waste product through a reputable waste contractor.

### 14. TRANSPORT INFORMATION

<b>UN Number:</b>	1170
<b>Proper Shipping Name:</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>Class and</b>	Class 3 Flammable Liquid

**Subsidiary Risk:**

**Packing Group:** 11  
**Special Precautions for User:** EPG - 3A1  
**Hazchem Code:** 2[S]E

**15. REGULATORY INFORMATION**

**SUSDP:** Poison Schedule 6  
**APVMA:** Registered according to the Agricultural and Veterinary Chemicals Act 1988.  
APVMA Product Number: 58566  
**International Regulatory Information:** Registered in Europe and USA.

**16. OTHER INFORMATION**

**Date of Preparation or Revision:** Initial version  
**Abbreviations and Acronyms:** APVMA = Australian Pesticides and Veterinary Medicines Authority  
CNS = Central nervous system  
EPG = Emergency Procedure Guide  
OEL = Occupational Exposure Level  
SUSDP = Standard for the Uniform Scheduling of Drugs and Poisons  
**Trademark Information:** Sitofex® is a Registered Trademark of Degussa AG, Germany  
**Data Sources:** Manufacturer product safety data and published data

This version replaces all previous versions.

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any other materials or in any process, unless specified in the text.

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