

## SAFETY DATA SHEET

### Section 1. Identification of the material and the supplier

Product: Florissant 810 (1ml/l)  
 Product No:  
 Product Use: Cut Flower Conditioner  
 Restrictions of Use: Refer to Section 15

New Zealand Supplier: Horticulture Ltd  
 Address: 10 Firth Street  
 Drury, 2113

Telephone: +64 9 294 8453  
 Fax Number: +64 9 294 7272

New Zealand: **0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 24 January 2023

### Section 2. Hazards Identification

**Classified as hazardous according to Regulation (EC) No. 1272/2008 [CLP] which meets New Zealand jurisdiction criteria as per EPA Hazardous Substances (Safety Data Sheets) Notice 2017.**

**EPA Approval No: Additives, Process Chemicals and Raw Materials (subsidiary) – HSR002503**

#### Pictograms



Signal Word: **WARNING**

GHS Classification and Category	Hazard Code	Hazard Statement
Skin irritation Cat. 2	H315	Causes skin irritation.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Skin sensitisation Cat. 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment acute/chronic Cat. 1	H400/410	Very toxic to aquatic life with long lasting effects.

#### Prevention Code      Prevention Statement

P102	Keep out of reach of children.
P103	Read label before use.
P261	Avoid breathing dust.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

**Response Code                      Response Statement**

P101	If medical advice is needed, have product container or label at hand.
P362	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

**Storage Code                      Storage Statement**

None allocated	
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**Disposal Code                      Disposal Statement**

P501	Triple rinse container. Cleaned packaging maybe offered for recycling or landfill in accordance with local regulations. Dispose of unwanted product as a hazardous material according to Local Regulations.
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**Section 3.                      Composition / Information on Ingredients**

<b>Ingredients</b>	<b>Wt%</b>	<b>CAS NUMBER.</b>
Citric Acid	15 - <50	77-92-9
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol- ATP ATP13 3-one (3:1) 1	0.25 - <1	55965-84-9

**Section 4.                      First Aid Measures**

Routes of Exposure:

If in Eyes	Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.
If on Skin	Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection. If skin irritation or rash occurs: Get medical advice/attention.
If Swallowed	Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest. Seek medical assistance if needed.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

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

Symptoms: Causes serious eye and skin irritation. Exposure to isothiazolinones may cause allergic skin reaction in susceptible people. Skin reactions usually occur after 24 hours or more after exposure. Sometimes mucosal irritation and respiratory problems may occur.

### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Non Flammable
<b>Hazards from combustion products</b>	As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
<b>Suitable Extinguishing media</b>	In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder).
<b>Precautions for firefighters and special protective clothing</b>	Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,) in accordance with Directive 89/654/EC. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.
<b>HAZCHEM CODE</b>	<b>3Z</b>

### Section 6. Accidental Release Measures

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

### Section 7. Handling and Storage

#### Handling

- Read label before use.
- Avoid breathing dust.
- Wash hands thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Do not eat or drink during the process.
- Keep containers hermetically sealed.
- Avoid leakages from the container.
- Maintain order and cleanliness where dangerous products are used.
- Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

#### Storage

- Store away from incompatible materials listed in Section 10.

- Keep out of reach of children.
- Storage temp: Minimum: 4°C Maximum: 30°C
- Maximum time: 24 months.
- Avoid sources of heat, radiation, static electricity and contact with food.

## Section 8 Exposure Controls / Personal Protection

### WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13TH EDITION.

### Engineering Controls

Ensure adequate ventilation is available.

### Personal Protective Equipment



<b>Eyes</b>	Panoramic glasses against splash/projections.
<b>Hands and Skin</b>	NON-disposable chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.12 mm). Work clothing.
<b>Respiratory</b>	The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Liquid
<b>Colour</b>	Colourless
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not available
<b>pH</b>	0.8
<b>Boiling Point</b>	100°C
<b>Melting/Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not flammable
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	2350 Pa @ 20°C 12381,01 Pa (12,38 kPa) @ 50°C
<b>Density @ 20°C</b>	1191 kg/m <sup>3</sup>
<b>Relative Density @ 20°C</b>	1.206
<b>Solubilities</b>	Not available
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available

<b>Kinematic Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not available

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Conditions to Avoid</b>	None known.
<b>Hazardous Reactions</b>	Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
<b>Incompatible Materials</b>	Oxidising materials, alkalis or strong bases.
<b>Hazardous Decomposition Products</b>	Depending on the decomposition complex mixtures of chemical substances can be released: carbon dioxide (CO <sub>2</sub> ), carbon monoxide and other organic compounds.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Not triggered however it contains substances classified as dangerous for consumption. The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Not triggered however it contains substances classified as dangerous if inhaled. Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.
<b>Eye</b>	Causes severe irritation to eyes.
<b>Skin</b>	Causes skin irritation. May cause an allergic skin reaction.

### Chronic Effects:

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	Not applicable.

### Acute Toxicity Estimate (ATE mix) :

	ATE mix	Ingredient(s) of unknown toxicity
Oral	21813,99 mg/kg (Calculation method)	0 %
Dermal	29694,29 mg/kg (Calculation method)	0 %
Inhalation	112,48 mg/L (4 h) (Calculation method)	0 %

### Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Citric Acid CAS: 77-92-9 EC: 201-069-1	ID50 oral	5400 mg/kg	Mouse
	ID50 dermal	2001 mg/kg	Rat
	IC50 inhalation	>5 mg/L (4 h)	
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	ID50 oral	64 mg/kg	Rat
	ID50 dermal	87,12 mg/kg	Rabbit
	IC50 inhalation	0,33 mg/L (4 h)	Rat

## Section 12. Ecotoxicological Information

Very toxic to aquatic life with long lasting effects.

## Acute Toxicity:

Identification	Concentration		Species	Genus
Citric Acid CAS: 77-92-9 EC: 201-069-1	LC50	1516 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	160 mg/L (48 h)	N/A	Crustacean
	EC50	Non-applicable		
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	LC50	0.28 mg/L (96 h)	Lepomis macrochirus	Fish

## Persistence and degradability:

Identification	Degradability		Biodegradability	
Citric Acid CAS: 77-92-9 EC: 201-069-1	BOD5	Non-applicable	Concentration	10 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	97 %

## Bioaccumulative Potential:

Identification	Bioaccumulation potential	
Citric Acid CAS: 77-92-9 EC: 201-069-1	BCF	3
	Pow Log	-1.55
	Potential	Low

## Mobility of Soil

Identification	Absorption/desorption		Volatility	
Citric Acid CAS: 77-92-9 EC: 201-069-1	Koc	Non-applicable	Henry	Non-applicable

Do not allow to enter waterways.

## Section 13. Disposal Considerations

### Disposal Method:

Triple rinse container. Cleaned packaging maybe offered for recycling or landfill in accordance with local regulations. Dispose of unwanted product as a hazardous material according to Local Regulations.

### Precautions and methods to avoid:

Do not allow to enter into surface water or drains where possible.

## Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020 and SNZ HB 5433:2021



### Road, Rail, Sea and Air Transport

UN No	3082
Class - Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2- methyl-2H-isothiazol-3-one (3:1))

Product Name: Florissant 810  
Date of SDS: 24 January 2023

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd  
[www.techcomp.co.nz](http://www.techcomp.co.nz) Tel: 64 9 475 5240

<b>Marine Pollutant</b>	<b>Yes</b>
<b>Special Provisions</b>	<b>If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.</b>

## Section 15 Regulatory Information

**Classified as hazardous according to Regulation (EC) No. 1272/2008 [CLP] which meets New Zealand jurisdiction criteria as per EPA Hazardous Substances (Safety Data Sheets) Notice 2017.**

EPA Approval Code: Additives, Process Chemicals and Raw Materials (subsidiary) – HSR002503

### Trigger quantities:

<b>HSWA &amp; EPA Controls</b>	<b>Trigger Quantity</b>
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	100L
Emergency Response Plan	100L
Secondary Containment	100L
Restriction of Use	None

## Section 16 Other Information

### Glossary

Cat	Category
EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

### References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

### Disclaimer

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