

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: Florissant 600 GEL
 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 (Corrosive) – HSR002491

Pictograms



Signal Word: **WARNING**

GHS Classification and Category	Hazard Code	Hazard Statement
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Corrosive to metals Cat. 1	H290	May be corrosive to metals.

Prevention Code Prevention Statement

P102	Keep out of reach of children.
P103	Read label before use.
P234	Keep only in original container.
P264	Wash hands thoroughly after handling.
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.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P390	Absorb spillage to prevent material damage.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code
Storage Statement

P406	Store in corrosive resistant container with a resistant inner liner.
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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

Ingredients	Wt%	CAS NUMBER.
Aluminium Sulphate	25 - <50	10043-01-3
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts	2.5 - <10	68411-30-3

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 skin irritation occurs: Get medical advice/attention.
If Swallowed	Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. 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 irritation.

Section 5.
Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from combustion products	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.
Suitable Extinguishing	In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder).

media	
Precautions for firefighters and special protective clothing	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.
HAZCHEM CODE	2X

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 spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

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.
- Keep only in original container.
- Wash hands thoroughly after handling.
- 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.
- It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

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 ³	ppm	mg/m ³

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

Engineering Controls

Ensure adequate ventilation is available.

Personal Protective Equipment



Eyes	Panoramic glasses against splash/projections.
Hands and Skin	Protective gloves against minor risks. Work clothing. Anti-slip work shoes.
Respiratory	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

Appearance	Liquid
Colour	Not available
Odour	Characteristic
Odour Threshold	Not available
pH	2.5
Boiling Point	100°C
Melting/Freezing Point	Not available
Flash Point	Not available
Flammability	Not flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	2350 Pa @ 20°C 12381,01 Pa (12,38 kPa) @ 50°C
Density @ 20°C	1140 kg/m ³
Relative Density @ 20°C	Not available
Solubilities	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

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

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe irritation to eyes.
Skin	Not applicable.

Chronic Effects:

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

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	Route	Dose	
aluminium sulphate CAS: 10043-01-3 EC: 233-135-0	ID50 oral	6207 mg/kg	Mouse
	ID50 dermal	>2000 mg/kg	
	IC50 inhalation	>5 mg/L (4 h)	
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS: 68411-30-3 EC: 270-115-0	ID50 oral	1260 mg/kg	Rat
	ID50 dermal	>2000 mg/kg	
	IC50 inhalation	>5 mg/L (4 h)	

Section 12. Ecotoxicological Information

Not hazardous to the environment.

Acute Toxicity:

Identification	Concentration		Species	Genus
	Endpoint	Dose		
aluminium sulphate CAS: 10043-01-3 EC: 233-135-0	LC50	33.9 mg/L (96 h)	Pimephales promelas	Fish
	EC50	38.2 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS: 68411-30-3 EC: 270-115-0	LC50	1.67 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	2.9 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	29 mg/L (96 h)	Selenastrum capricornutum	Algae

Chronic Toxicity:

Identification	Concentration		Species	Genus
	Endpoint	Dose		
aluminium sulphate CAS: 10043-01-3 EC: 233-135-0	NOEC	0.014 mg/L	Salvelinus fontinalis	Fish
	NOEC	3.8 mg/L	Ceriodaphnia dubia	Crustacean
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS: 68411-30-3 EC: 270-115-0	NOEC	0.23 mg/L	Oncorhynchus mykiss	Fish
	NOEC	1.18 mg/L	Daphnia magna	Crustacean

Persistence and degradability:

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS: 68411-30-3 EC: 270-115-0	BOD5	Non-applicable	Concentration	34.3 mg/L
	COD	Non-applicable	Period	29 days
	BOD5/COD	Non-applicable	% Biodegradable	89 %

Bioaccumulative Potential:

Identification	Bioaccumulation potential	
	Parameter	Value
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS: 68411-30-3 EC: 270-115-0	BCF	2
	Pow Log	3.32
	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

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: None known.

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	1760
Class - Primary	8
Packing Group	III
Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (aluminium sulphate)
Marine Pollutant	No
Special Provisions	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.

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 (Corrosive) – HSR002491

Trigger quantities:

HSWA & EPA Controls	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L
Emergency Response Plan	Not required
Secondary Containment	Not required
Restriction of Use	None

Section 16 Other Information

Product Name: Florissant 600 GEL
Date of SDS: 24 January 2023

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd
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Glossary

Cat	Category
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	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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Please contact the New Zealand distributor, if further information is required.

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