

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: LIQUIDSEAL® for gerberas post-harvest
 Product No:
 Product Use: Coating for: Gerberas
 Restriction 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

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 13 August 2019

Section 2. Hazards Identification

The manufacturer has stated this substance is NON hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

Section 3. Composition / Information on Ingredients

No hazardous product :
 Copolymer of: ethylene + vinyl esters (dispersion in water)

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes Rinse cautiously with water for several minutes. If eye irritation occurs: Get medical advice.

If on Skin Wash with plenty of soap and water. If skin irritation occurs: get medical advice.

If Swallowed Immediately rinse the mouth with water, then drink a lot of water. Consult the doctor in case of persistent trouble. Get medical assistance if you feel unwell.

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: None known

Advice for Doctor: Due to its physical properties, although in the dilutions used this is highly unlikely, the product if ingested in large Quantities (half a liter or over) may cause mechanical irritation as it may agglutinate in the gastro-intestinal tract. Medical assistance should be sought. Depending on the symptoms, invasive measures may be necessary.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable. Dried up material is combustible.
Hazards from decomposition products	At low oxygen level: acetic acid.
Suitable Extinguishing media	Use extinguishing measures appropriate to the source of the fire.
Precautions for firefighters and special protective clothing	Use respiratory protection independent of recirculated air.
HAZCHEM CODE	None allocated

Section 6. Accidental Release Measures

Wear suitable protecting clothes. If material is released indicate risk of slipping.

Prevent material from entering sewers or surface waters.

Contain any fluid that runs out using suitable material (e.g. earth). Take up mechanically. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations.

Contain larger amounts and pump up into suitable containers. Clean up with plenty of water. Dispose of cleansing water in accordance with local regulations detailed in Section 13.

Section 7. Handling and Storage

Handling

- Spilled substance increases risk of slipping.
- Read label before use.

Storage

- Protect against frost.
- Minimum temperature allowed during storage and transportation: 0 °C
- Store away from incompatible materials listed in Section 10.

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 ingredient has 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 NOV 2017 9TH EDITION.

Engineering Controls

No special measures required.

Personal Protection Equipment

Eyes	Not required.
Hands	Not required.
Skin	Not required.
Respiratory	Not required.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	White
Odour	Slight
Odour Threshold	Not applicable
pH	6 - 6.5 (DIN/ISO 976)
Boiling Point	Approx. 100°C
Melting Point	Approx. 0.00°C
Freezing Point	Not applicable
Flash Point	Not applicable
Flammability	Not applicable
Upper and Lower Explosive Limits	Not applicable
Explosive hazards	Not applicable
Vapour Pressure	23 hPa at 20 °C
Vapour Density	Not applicable
Density @ 20°C	approx. 1,05 g/cm ³ (DIN EN ISO 2811-1)
Water Solubility	Moderately soluble
Partition Coefficient:	Not applicable
Self-ignition	Not applicable
Decomposition Temperature	Not applicable
Kinematic Viscosity	Not applicable
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	None known.
Conditions to Avoid	None known.
Incompatible Materials	None known.
Hazardous Decomposition Products	If stored and handled in accordance with standard industrial practices and local regulations where applicable: none known. At increased temperature: acetic acid.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Not applicable.
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.

Section 12. Ecotoxicological Information

This product is not known to be hazardous to the environment.

Ecotoxicity

Species	Test method	Exp. Time	Result	Source
Carp (Cyprinus carpio)	Acute	96 h	> 1000 mg/l (LC50)	test report

No expected damaging effects to aquatic organisms.

Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition):

Test system	Exp. Time	Result	Source
Sludge	0,5 h	>1000 mg/l (EC10)	test report

According to current knowledge adverse effects on water purification plant are not expected.

Even though unlikely to have effects in light of concentrations used, prevent material from entering surface waters and Soil. In light of dilutions used, safe to release to water purification plants in its diluted state. No environmental problems Expected if handled and treated in accordance with standard industrial practices and local regulations where applicable Especially when taking into account low concentrations used. The ecotoxicological results provided were obtained from Tests with similar products albeit at much higher concentrations.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse container. Can be disposed of with domestic waste.

Precautions or methods to avoid: Dispose of unwanted product as a hazardous material according to Local Regulations.

Section 14 Transport Information

This product is not classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Section 15 Regulatory Information

The manufacturer has stated this substance is NON hazardous according to the EPA Hazardous Substances (Classification) Notice 2017.

Section 16 Other Information

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
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 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

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Please contact the Australian / New Zealand distributor, if further information is required.

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