

## SAFETY DATA SHEET

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

Product: **Leafshine**  
 Product Use: Houseplant Leafshine gives long-lasting glossy sheen for thick and glossy leafed houseplants.  
 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: 16 November 2021

### Section 2. Hazards Identification

**This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020.**

**EPA Approval No: Aerosols (Flammable) – HSR002515**

#### Pictograms



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Aerosol Cat. 1	H222	Extremely flammable aerosol.
Aerosol	H229	Pressurised container: may burst if heated.
Hazardous to the aquatic environment chronic Cat. 3	H412	Harmful to aquatic life with long lasting effects.

Prevention Code	Prevention Statement
P103	Read label before use.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.
P273	Avoid release to the environment.

Response Code	Response Statement
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None allocated	
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<b>Storage Code</b>	<b>Storage Statement</b>
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

<b>Disposal Code</b>	<b>Disposal Statement</b>
P501	Dispose of according to Local Regulations or Authorities

### Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Hydrocarbons, C11-C12, Isoalkanes, < 2 % Aromatics	≥25 - <50	EC918-167-1
Butane (< 0,1 % 1,3-Butadiene)	>10 - <25	106-97-8
White Mineral Oil (Petroleum)	>10 - <25	8042-47-5
Propane	>10 - <25	74-98-6
Propan-2-Ol	>2.5 - <10	67-63-0

### Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.
If on Skin	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
If Swallowed	In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor. Keep the person exposed at rest. Do not force vomiting. Seek medical attention, showing the label. If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.
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.

### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Flammable Aerosol
<b>Explosion hazard</b>	On contact with ordinary metals (steel, galvanized, aluminium) corrosion may occur and generate highly flammable hydrogen gas.
<b>Hazards from products</b>	A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke. In the event of a fire, the following may be formed: -carbon monoxide (CO) -carbon dioxide (CO2) In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

<b>Suitable Extinguishing media</b>	Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires. If the aerosols are exposed to a fire : keep containers cool by spraying with water from a protected position. <b>Suitable methods of extinction</b> In the event of a fire, use : -sprayed water or water mist -water with AFFF (Aqueous Film Forming Foam) additive -foam -multipurpose ABC powder -BC powder -carbon dioxide (CO2) Prevent the effluent of fire-fighting measures from entering drains or waterways.
<b>Precautions for firefighters and special protective clothing</b>	Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus. If possible, stop the product stream. Spray from a protected position till the containers are cool. If possible, take the aerosols outside. Keep public at a distance.
<b>HAZCHEM CODE</b>	<b>2YE</b>

## **Section 6. Accidental Release Measures**

Wear PPE as detailed in Section 8. Keep unnecessary and unprotected personnel from entering. Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.  
Prevent any material from entering drains or waterways.

Clean preferably with a detergent, do not use solvents. Dispose as per Section 13.

## **Section 7. Handling and Storage**

### **Precautions for Handling:**

- Read label before use.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.
- Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.
- Do not spray on an open flame or other ignition source.
- Pressurized container: Do not pierce or burn, even after use.
- Wash hands after handling.
- Ensure there is adequate ventilation, especially in confined areas.
- Do not breathe in aerosols.
- Packages which have been opened must be reclosed carefully and stored in an upright position.
- Avoid release to the environment.

### **Precautions for Storage:**

- Keep out of reach of children.
- Keep away from all sources of ignition - do not smoke.
- Keep well away from all sources of ignition, heat and direct sunlight.
- The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.
- Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.
- Storage in a dry, frost-free and well ventilated place.
- Packaging: Always keep in packaging made of an identical material to the original.

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

Substance		TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Butane	[106-97-8]	800	1900	-	-
Isopropyl alcohol	[67-63-0]	400	983	500	1230

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 2020 12TH EDITION.

**Derived no effect level (DNEL) or derived minimum effect level (DMEL):****PROPAN-2-OL (CAS: 67-63-0)****Final use:**

Exposure method:

Potential health effects:

DNEL :

**Workers.**

Dermal contact.

Long term systemic effects.

888 mg/kg body weight/day

Exposure method:

Potential health effects:

DNEL :

Inhalation.

Long term systemic effects.

500 mg of substance/m<sup>3</sup>**Final use:**

Exposure method:

Potential health effects:

DNEL :

**Consumers.**

Ingestion.

Long term systemic effects.

26 mg/kg body weight/day

Exposure method:

Potential health effects:

DNEL :

Dermal contact.

Long term systemic effects.

319 mg/kg body weight/day

Exposure method:

Potential health effects:

DNEL :

Inhalation.

Long term systemic effects.

89 mg of substance/m<sup>3</sup>**WHITE MINERAL OIL (PETROLEUM) (CAS: 8042-47-5)****Final use:**

Exposure method:

Potential health effects:

DNEL :

**Workers.**

Dermal contact.

Long term systemic effects.

220 mg/kg body weight/day

Exposure method:

Potential health effects:

DNEL :

Inhalation.

Long term systemic effects.

160 mg of substance/m<sup>3</sup>**Final use:**

Exposure method:

Potential health effects:

DNEL :

**Consumers.**

Ingestion.

Long term systemic effects.

40 mg/kg body weight/day

Exposure method:

Potential health effects:

DNEL :

Dermal contact.

Long term systemic effects.

93 mg/kg body weight/day

Exposure method:

Inhalation.

Potential health effects: Long term systemic effects.  
 DNEL : 35 mg of substance/m<sup>3</sup>

**Predicted no effect concentration (PNEC):**

**PROPAN-2-OL (CAS: 67-63-0)**

Environmental compartment: Soil.  
 PNEC : 28 mg/kg

Environmental compartment: Fresh water.  
 PNEC : 140.9 mg/l

Environmental compartment: Sea water.  
 PNEC : 140.9 mg/l

Environmental compartment: Intermittent waste water.  
 PNEC : 140.9 mg/l

Environmental compartment: Fresh water sediment.  
 PNEC : 552 mg/kg

Environmental compartment: Marine sediment.  
 PNEC : 552 mg/kg

Environmental compartment: Waste water treatment plant.  
 PNEC : 2251 mg/l

**Engineering Controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Personal Protection Equipment**



<b>Eyes</b>	Avoid contact with eyes. Use eye protectors designed to protect against liquid splashes Before handling, wear safety goggles in accordance with standard EN166. Do not spray in the direction of the eyes.
<b>Hands</b>	Type of gloves recommended: -Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR)) -PVA (Polyvinyl alcohol) -Natural latex -Butyl Rubber (Isobutylene-isoprene copolymer) -Viton® (Hexafluoropropylene copolymer and vinylidene fluoride) Recommended properties: -Impervious gloves in accordance with standard EN374 Not necessary at efficient use. Wash your hands after contact with skin.
<b>Skin</b>	Suitable type of protective clothing: In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact. In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact. Work clothing worn by personnel shall be laundered regularly. After contact with the product, all parts of the body that have been soiled must be washed.

	Not necessary at efficient use. Wash skin that has been in contact with the product, with water and soap.
<b>Respiratory</b>	Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387: -A1 (Brown) Do not breathe spray. Use only in well-ventilated areas.
<b>General</b>	Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place, away from the work area. Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Aerosol - Liquid
<b>Colour</b>	Colourless clear
<b>Odour</b>	Propane-2-ol
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	<0°C
<b>Flammability</b>	Extremely Flammable
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Relative Density</b>	Not available
<b>Density</b>	0.667
<b>Solubilities</b>	Insoluble
<b>Log Pow</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity, dynamic</b>	Not available
<b>Particle Characteristics</b>	Not available
<b>VOC (g/l)</b>	550.27
<b>Pressure @ 20°C</b>	± 4.0 bar
<b>Pressure @ 50°C</b>	<10 bar
<b>Water content</b>	<3% w/w

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	Stable under normal conditions.
<b>Possible hazardous reactions</b>	When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.  Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to Avoid</b>	Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.  Avoid :  - heat

	<ul style="list-style-type: none"> <li>- flames and hot surfaces</li> <li>- frost</li> </ul> Protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from heat and sources of ignition. Storage in a dry, frost-free and well ventilated place.
<b>Incompatible Materials</b>	None known.
<b>Hazardous Decomposition Products</b>	The thermal decomposition may release/form : <ul style="list-style-type: none"> <li>- carbon monoxide (CO)</li> <li>- carbon dioxide (CO<sub>2</sub>)</li> </ul> The product is stable. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Not applicable.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Not applicable.
<b>Eye</b>	Not applicable.
<b>Skin</b>	Not applicable.

### 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.

<b>Propane (74-98-6)</b>	
LC50 inhalation (mg/l)	LC50 = >10 mg/L

<b>Butane (106-97-8)</b>	
LC50 inhalation (mg/l)	LC50 = >10 mg/L

<b>Propan-2-OL (67-63-0)</b>	
LD50 Oral, rat	5840 mg/kg
LD50 Dermal, rabbit	13900 mg/kg
LC50, inhalation, rat	>5mg/L

<b>Hydrocarbons</b>	
LD50 Oral, rat	>5000 mg/kg
LD50 Dermal, rabbit	>2000 mg/kg
LC50, inhalation, rat	>5000 mg/m <sup>3</sup>

## Section 12. Ecotoxicological Information

May cause long lasting harmful effects to aquatic life.

The product must not be allowed to run into drains or waterways.

<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available

<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available

<b>Hydrocarbons</b>	
Fish Toxicity	LC50 = 1000mg/L (96 hrs) – Oncorhynchus mykiss
Crustacean Toxicity	EC50 = 1000mg/L (48 hrs) – Daphnia Magna
Algae Toxicity	ECr50 = 1000mg/l (72hrs) - Pseudokirchnerella subcapitata

<b>Propan-2-OL (67-63-0)</b>	
Fish Toxicity	LC50 = 9640mg/L (96 hrs) – Pimephales promelas
Crustacean Toxicity	EC50 = 9714mg/L (24 hrs) – Daphnia Magna
Algae Toxicity	ECr50 = 1000mg/l (72hrs) - Scenedesmus subspicatus

<b>White Mineral Oil (Petroleum) (8042-47-5)</b>	
Fish Toxicity	LC50 = >400000mg/L (96 hrs) – Oncorhynchus mykiss
Crustacean Toxicity	EC50 = >500000mg/L (48hrs) – Mysidopsis bahia NOEC = >10mg/L (21 days) – Daphnia Magna
Algae Toxicity	ECr50 = 100mg/l (72hrs) - Pseudokirchnerella subcapitata NOEC = 100mg/l(72hrs) - Pseudokirchnerella subcapitata

### Section 13. Disposal Considerations

#### Disposal methods:

Empty container completely and recycle where possible.

#### Precautions:

Do not allow to enter waterways.

### Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012



#### Road, Rail, Sea and Air Transport

<b>UN No</b>	1950
<b>Class - Primary</b>	2.1
<b>Proper Shipping Name</b>	AEROSOLS FLAMMABLE
<b>Marine Pollutant</b>	No

### Section 15 Regulatory Information

EPA Approval Code: **Aerosols (Flammable) – HSR002515**

<b>HSWA &amp; EPA Controls</b>	<b>Trigger Quantity</b>
Certified Handler	Not required
Location Certificate	3000L (AWC)
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L
Emergency Response Plan	1000L
Secondary Containment	1000L
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 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

Disclaimer

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

Issue Date: 16 November 2021      Review Date: 16 November 2026