

# SAFETY DATA SHEET

## B-NINE® SG Plant Growth Regulator

Date of Issue: 1 November 2021

### 1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

**Chemical name of active ingredient(s):** Daminozide  
**Recommended use:** Plant Growth Regulator which produces more compact and uniform ornamental plants with improved flowering and foliage.  
**Supplier:** UPL New Zealand Limited  
PO Box 51584, Pakuranga  
Auckland  
Phone 0800 100 325  
www.upl-ltd.com/nz

**Emergency telephone number:** 0800 CHEM CALL (0800 243 622) 24 Hours

### 2. HAZARDS IDENTIFICATION



**Hazard Classification:** 6.7B, 9.1B  
**Required identification Details:** **WARNING:**  
Keep out of the reach of children.

Suspected of causing cancer.  
Toxic to aquatic life with long lasting effects.

This product must not be used for any purpose, or in any manner, contrary to this label unless authorised under appropriate legislation.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
Octyl phenol ethoxylate	9036-19-5	10-30%
Daminozide	1596-84-5	850g/kg

### 4. FIRST-AID MEASURES

**Description of necessary first aid measures:**

**General information:** For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately.  
Begin artificial respiration if the victim is not breathing.  
Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention.

#### First-aid measures

<b>Inhalation:</b>	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
<b>Ingestion:</b>	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
<b>Skin contact:</b>	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.
<b>Eye contact:</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Remove contact lenses, if present and easy to do. Seek medical assistance even if there are no immediate symptoms.
<b>First Aid Facilities:</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
<b>Notes to a physician:</b>	Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

<b>HAZCHEM Code:</b>	2X
<b>Type of Hazard:</b>	
<b>Extinguishing media:</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Hazardous thermal (de)composition products:</b>	May emit toxic fumes of oxides of nitrogen and dimethylhydrazine if involved in fires or exposed to extreme heat. Combustible solid. May form explosive dust-air mixtures.
<b>Specific methods:</b>	Keep up-wind. Do not allow washings to reach sewage or effluent systems. Contain run-off.
<b>Protection of fire-fighters:</b>	Full protective clothing and self-contained breathing apparatus.
<b>Other Information:</b>	Location Certificate: Not applicable. Hazardous Atmosphere Zone: Not applicable. Number of Fire Extinguishers: Not applicable.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Environmental precautions:</b>	Prevent from entering drains, waterways or sewers.
<b>Methods for cleaning up:</b>	Wear protective clothing. Clear area of unprotected personnel. Eliminate all ignition sources and naked lights. Use non-sparking utensils. Sweep or vacuum up solids without generating dust. Contain liquid spills and absorb with sand, soil or absorbent granules. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid skin and eye contact and inhalation of spray mist. APPROVED HANDLER: Not applicable TRACKING: Is not required RECORD KEEPING: Not applicable
<b>Storage:</b>	This product must not be applied onto or into water Keep out of reach of children. Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs. Storage must be in accordance with NZS 8409 Management of Agrichemicals.

**Other Information:**

Stores containing 1,000kg of B-NINE SG are subject to signage, and more than 1,000kg require emergency response plans  
Always read the label and any attached leaflet before use.  
Aggregate Storage Volume Thresholds:  
When stored with substances of the same hazard classification the aggregate quantity must be considered.  
For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace Exposure Guidelines

**Exposure Standards:**

No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product. WES TWA for Magnesite = 10mg/m<sup>3</sup>

### Engineering measures

**Exposure control measures:**

Handle in well ventilated areas, generally natural ventilation is adequate. Protect closed dust handling systems against possible dust explosions. Avoid dust accumulation on building or equipment surfaces.

### Personal Protective Equipment

**Detail specifications for equipment:**

**Respiratory system:**

If dust is generated and there is danger of inhaling dust, also wear a NIOSH approved half face mask with organic vapour cartridge + dust/mist prefilter.

**Skin and body:**

When opening the container, preparing spray and using the prepared spray wear safety goggles, waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots.

**Hands:**

Wear waterproof gloves.

**Eyes:**

Wear safety goggles.

**General hygiene:**

Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State: Colour, Odour.**

Solid white granule. Odourless.

**pH:**

**Vapour Pressure:**

0.13kPa

**Boiling Point:**

**Flash Point:**

**Melting point:**

157-164°C (daminozide)

**Solubility in water:**

Soluble. 115g/L @ 20°C

**Solubility in Organic Solvents:**

Soluble in acetone and methanol

**Density:**

423 - 1,067 kg/m<sup>3</sup>

**Auto-ignition:**

262°C

**Flammable limits:**

30g/m<sup>3</sup>

**Flashpoint:**

110°C

**Octanol/water partition coefficient:**

**Explosive Properties:**

**Oxidation Properties:**

**Other:**

(SG) Water Soluble Granule

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## 10. STABILITY AND REACTIVITY

**Stability:**

Stable under normal conditions of handling and storage.  
Light stable, may darken when heated.

**Conditions to avoid:**

High humidity and moisture will cause this product to harden.

**Incompatible materials:**  
**Hazardous Decomposition Products:**  
**Hazardous polymerization:**  
**Hazardous Reactions:**

Keep out of direct sunlight or other sources of heat and ignition.  
Strong acids and alkalis.  
Decomposition under burning conditions will produce oxides of nitrogen and dimethylhydrazine (an animal carcinogen).

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## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity – Oral:**

LD<sub>50</sub> (rat) >5,000mg/kg

**Acute toxicity - Dermal:**

LD<sub>50</sub> (rat) 8400mg/kg (daminozide)

LD<sub>50</sub> (rat) >5,000mg/kg

LD<sub>50</sub> (rabbit) >5,000mg/kg (daminozide)

**Acute toxicity – Inhalation:**

LC<sub>50</sub> (rat) >4.0mg/L/4h

**Ingestion:**

May result in nausea and vomiting.

**Skin irritation:**

Contact with skin may result in irritation.

**Eye irritation:**

Contact with eyes may cause irritation.

**Respiratory Sensitization:**

Inhalation of the dust may cause respiratory irritation.

**Chronic toxicity**

**Carcinogenicity:**

IARC category 3 carcinogen (daminozide)

**Subchronic/Chronic Toxicity:**

Animal test data has indicated that there may be carcinogenic potential for the active ingredient daminozide. This is not considered relevant to normal industrial use but rather stressed the need for extra care during handling.

The no observable effect level (NOEL) in a three generation reproductive study in rats was 1,000mg/kg.

UMDH (contaminant in daminozide) - No evidence of carcinogenicity following dosages in drinking water of rats up to approximately 10mg/kg bw/day. UMDH was clearly carcinogenic in mouse studies inducing blood vessel tumors, pulmonary adenomas and carcinomas.

**Other information :**

The Australian Acceptable Daily Intake (ADI) for daminozide for a human is 0.7 mg/kg/day, set for the

public for daily, lifetime exposure. This is based on the NOEL of 75 mg/kg/day, the level determined to show

no effects during long term exposure for the most sensitive indicators and the most sensitive

species. (Ref: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', December 2014).

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## 12. ECOLOGICAL INFORMATION

**Acute Toxicity:**

**Aquatic**

LC<sub>50</sub> (96hr) Rainbow trout = 7.2mg/L for ethoxylated octyl phenol

LC<sub>50</sub> (96hr) Rainbow trout = 149mg/L, bluegill sunfish 423mg/L

LC<sub>50</sub> (48hr) daphnia 8.6mg/L for ethoxylated octyl phenol

LC<sub>50</sub> (48hr) daphnia 98.5mg/L for daminozide

**Algae:**

EC<sub>50</sub> 96h Selenastrum green algae 0.21mg/L for ethoxylated octyl phenol

EC<sub>50</sub> Chlorella 180ppm for daminozide

**Other:**

Dietary LC<sub>50</sub> (8d) for Mallard duck and bobwhite quail

>10,000mg/kg diet

LC<sub>50</sub> Earthworms >632ppm

Non-toxic to bees. LD<sub>50</sub> >100µg/bee for an 80% formulation

**Environmental Fate:**

B-Nine is rapidly dissipated and bound in soil with carbon dioxide formation. Soil half-life is 17 hours.

Rapidly metabolised to bound soil residues which minimizes the risk of leaching in the field.

**Basis for Assessment:**

Ecotoxicological data have not been determined specifically for this product. Data below is for the active ingredient unless otherwise stated.

**Mobility:**

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**13. DISPOSAL CONSIDERATIONS**

**Methods of disposal:** Dispose of product only by using according to the label, or at an approved landfill.

**Empty container precautions:** Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

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**14. TRANSPORT INFORMATION - International transport regulations**

**UN number:** 3077

**Hazchem** 2X

**Class or Division:** 9

**Subsidiary Class:**

**Packing Group:** III

**Marine Pollutant:** Marine pollutant.

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. - (ethoxylated octyl phenol, 29%)

**IERG Number:** 47

**IMO Marine Pollutant:** Yes. Environmentally Hazardous Substance mark required.

**IMDG EMS:** F-A, S-F

**Other Information:**

Do not carry this product on a passenger service vehicle.  
Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information.  
Sea transport may require additional segregation.  
Refer NZS5433 sea segregation for details.

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**15. REGULATORY INFORMATION**

**ACVM Registered Number:**

This product does not require registration under the ACVM Act.

**HSNO Approval Code:**

**HSR100029**

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**16. OTHER INFORMATION****Additional information:**

**Original Issue Date:** 13/11/18

**Revision Date:** 6 December 2021

**Replaces:** ES628

IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE

24Hr Toll free Emergency No: 0800 651 911

24Hr Emergency No: National Poisons Centre Phone: 0800 764 766

**Disclaimer EXCLUSION OF LIABILITY: PLEASE READ**

*This Safety Data Sheet is based on the most recent information available. To the extent permitted by law, users of this information accept that neither the manufacturer, UPL New Zealand Limited as distributor, nor any other distributor have any liability or responsibility whatsoever for any loss, damage or injury whether in contract or tort, whether direct, indirect or consequential howsoever arising in connection with the supply of these information.*