



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Alar SG Plant Growth Regulant
Other Names: Daminozide
Product Codes: None allocated
Recommended Use: For the control of height and promotion of flowering of ornamental plants
Chemical Family: -
Supplier: Chemtura Australia Pty Ltd
ABN: 005 225 507
Street Address: Level 7, 435 King William Street
Adelaide South Australia 5000
Telephone Number: 61 8 8112 0900
Facsimile Number: 61 8 8112 0999
Emergency Telephone: **1800 033 111 (24-hour service)**

2. HAZARDS IDENTIFICATION

Hazard Classification: **HAZARDOUS SUBSTANCE, NON-DANGEROUS GOOD**
Classified according to the criteria of the National Occupational Health and Safety Commission (NOHSC).

Risk Phrases: Carc. Cat 3
Xn Harmful
R40 Possible risk of irreversible effects.

Safety Phrases: S36/37 Wear suitable protective clothing and gloves.

Poisons Schedule: Schedule 5

Dangerous Goods Class: Not a dangerous good.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Identity	Common Name(s) and Synonym(s)	CAS Number	Proportion by Weight
Daminozide	Daminozide	1596-84-5	859g/L

Note: Australian and US Patents apply.

4. FIRST AID MEASURES

Ingestion: Rinse mouth with water. Give patient plenty of water to drink. Seek immediate medical advice.

Inhalation: Remove patient to fresh air, avoid becoming a casualty. If effects persist, seek medical advice.

Eye Contact: Hold eye(s) open and flush with water for at least 15 minutes. Seek medical advice.

Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing and launder before re-use. If irritation occurs, seek medical advice.

Advice to Doctor: Treat symptomatically.

First Aid Facilities: Eye wash station.

Additional Information: If poisoning occurs contact a doctor or Poison Information Centre. Phone Australia 131 126; New Zealand 03 4747 000.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water jets, water fog (or if unavailable, fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). Contain runoff.
Hazards from Combustion Products:	Combustible Solid: Toxic fumes are emitted when burning. May form explosive dust-air mixtures.
Precautions for Fire fighters and Special Protective Equipment:	Protect against inhalation of combustion products by wearing self-contained breathing.
HazChem Code:	None allocated.
Additional Information:	None allocated.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	
Methods and Materials for Containment and Clean-Up Procedures:	Wear protective equipment as outlined above, to prevent skin and eye contamination as well as inhalation of dust. Eliminate all ignition sources within at least 15 m. Do not touch or walk through spilled material. Preferably, vacuum up to avoid creating dust. Do not contaminate watercourses or drains with products or containers. Transfer into secure, sealed and properly labeled containers for disposal. Do not reuse container for any purpose. If there is contamination of crops or waterways, advise emergency services or State Department of Agriculture.

7. HANDLING AND STORAGE

Conditions for Safe Storage:	Not defined as a Dangerous Good by the Australian Code for the Transport of Dangerous Goods by Road and Rail. This material is a Scheduled Poison (S5) and must be stored, maintained and used according to the relevant regulations. Store in original container, away from children, animals, food and feedstuffs. Storage must be secure, and locks and/or seals in order, so contents cannot be tampered with. Check regularly for leaks. Keep cool and dry and out of direct sunlight or other sources of heat and ignition. High humidity and moisture will cause this product to harden.
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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

National Exposure Standards:	None allocated for this material by the National Occupational Health and Safety Commission (Work safe Australia).
Engineering Controls:	Provide sufficient ventilation to minimize dust exposure. Protect closed handling systems against possible dust explosions. Avoid dust accumulations in building or equipment surfaces. Keep containers closed when not in use.
Personal Protective Equipment (PPE):	Safety phrase(s): S36/37 Wear suitable protective clothing and gloves. Avoid personal contact. Do not inhale dust. Do not eat, drink or smoke while using. Wear overalls, safety glasses and impervious gloves. If dust is generated and there is danger of inhaling dust, wear a dust respirator (SCBA). After use and before eating, drinking, smoking or using the toilet, wash hands, arms and face thoroughly with soap and water. Launder clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White granular solid
Odour:	Odourless
pH:	Not available.
Melting Point:	Not applicable.
Solubility:	115g/L in water @ 20°C
Specific Gravity (Water = 1):	0.46
Bulk Density:	423-1067 kg/m ³
Evaporation Rate:	Nil (Butyl acetate = 1)
Auto-ignition Temperature:	262°C
Flammability Limits (%):	LEL: 30 g/m ³
Flashpoint:	110°C

10. STABILITY AND REACTIVITY

Chemical Stability:	Light stable. May darken when heated.
Incompatible Materials:	Strong acids and alkalis.
Hazardous Decomposition Products:	Decomposition under burning conditions will produce oxides of nitrogen and dimethylhydrazine (an animal carcinogen).

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:

Acute Health Effects:

Swallowed: May result in nausea and vomiting.
Acute oral LD50 - > 5000 mg/kg (rat)
Eye: Contact with eyes may cause irritation.
Skin: Contact with skin may result in irritation.
Acute dermal LD50 - > 5000 mg/kg (rabbit)

Inhaled: Inhalation of the dust may cause respiratory irritation.

Acute inhalation LC50 - > 4.0 mg/L (rat) (4 hour)

Chronic Health Effects:

No observable effect was evident when dogs were fed up to 188 mg/kg/day for one year.

No observable effect was evident when rats were fed up to 5 mg/kg/day over 2 years. Although with doses greater than this, ovarian atrophy and bile duct hyperplasia was evident, however, with no increase in tumor.

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 1000 mg/kg diet.

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

12. ECOLOGICAL INFORMATION

Ecotoxicity:

For the active ingredient daminozide:
96 hr LC50 (Bluegill Sunfish) - 423 mg/L
96 hr LC50 (Rainbow Trout) - 149 mg/L
48 hr LC50 (daphnia) - 98.5 mg/L

13. DISPOSAL CONSIDERATIONS

Disposal Method(s):

Rinse containers before disposal. Add rinsings to spray tanks. Do not dispose of undiluted chemicals on-site. Dispose of at a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

Precautions for Landfill or Incineration:

Empty containers and product should not be burnt. Dispose of sealed containers at an approved local waste disposal site.

14. TRANSPORT INFORMATION

UN Number:	None allocated.
UN Proper Shipping Name:	None allocated.
DG Class & Subsidiary Risk:	None allocated.
Packing Group:	None allocated.
EPG/GTEPG:	None allocated.
Special Precautions for User:	None allocated.
HazChem Code:	None allocated.
Other Information:	None allocated.

15. REGULATORY INFORMATION

Poisons Schedule:	Schedule 5
Additional Information:	APVMA Product No. 53130

16. OTHER INFORMATION

Date of Preparation: July, 2006

Revision Date: March, 2008

Revision Number: 1

Revision Summary: Rev 1 - Update of Chemtura contact numbers.

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