

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	Pennmag™ Turf Herbicide
Other Names:	Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (S-metolachlor) Applicable only for marine and air transport
	Product code: A9396B
Recommended Use:	Herbicide for pre-emergent control of weeds in turf
Company Details:	Syngenta Australia Pty Ltd ABN 33 002 933 717
Address:	Level 1, 2-4 Lyonpark Road MACQUARIE PARK NSW 2113 AUSTRALIA
Telephone Number:	(02) 8876 8444
Emergency Telephone Number:	24 hours - 1800 033 111

Section 2: HAZARDS IDENTIFICATION

Hazard Classification:	Classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
Risk Phrases:	R20 Harmful by inhalation R36 Irritating to eyes R43 May cause sensitisation by skin contact
Safety Phrases:	–

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE		
Chemical Identity of Pure Substance:	S-metolachlor	
Synonym:	CGA 77102	
CAS Number:	87392-12-9	

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/v)
S-metolachlor	87392-12-9	96
Mixture of aromatic hydrocarbons	64742-94-5	<10
Other ingredients determined not to be hazardous	-	to 100

Section 4: FIRST AID MEASURES

Description of Necessary First Aid Measures:	<p>In case of poisoning by any exposure route contact a doctor or Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.</p> <p>Ingestion: If swallowed, seek medical advice immediately. DO NOT induce vomiting, contains petroleum distillates and/or aromatic solvents</p> <p>Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.</p> <p>Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a doctor. Wash contaminated clothing before re-use.</p> <p>Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a doctor or Poison Information Centre immediately.</p>
Poisoning Symptoms:	Aspiration may cause pulmonary oedema and pneumonitis
Medical Advice:	There is no specific antidote available. Treat symptomatically. DO NOT induce vomiting, contains petroleum distillates and/or aromatic solvents

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	<p><i>Small fires</i> Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. DO NOT use a solid water stream as it may scatter and spread fire.</p> <p><i>Large fires</i> Use alcohol resistant foam or water spray. DO NOT use a solid water stream as it may scatter and spread fire.</p>
Hazards from Combustion Products:	As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Combustion or thermal decomposition will evolve toxic and irritant vapours. Exposure to decomposition products may be a hazard to health.
Special Protective Precautions and Equipment for Fire Fighters:	Wear protective clothing and self-contained breathing apparatus. DO NOT allow runoff from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	In case of spillage it is important to take all steps necessary to <ul style="list-style-type: none"> • Avoid eye and skin contact • Avoid contamination of waterways
Methods and Materials for Containment and Clean Up:	<p>Procedure for spill</p> <ol style="list-style-type: none"> (1) Keep all bystanders away (2) Wear full length clothing and PVC gloves (3) Reposition any leaking containers so as to minimise further leakage (4) Dam and absorb spill with an absorbent material (eg sand or soil) (5) Shovel the absorbed spill into drums (6) Disposal of the absorbed material will depend upon the extent of the spill <ul style="list-style-type: none"> • For quantities up to 50 L of product bury in a secure landfill site • For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established (7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:	<p>Harmful if inhaled. DO NOT inhale spray mist. Will damage the eyes. Avoid contact with eyes. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. When opening the container, preparing and using the prepared spray wear:</p> <ul style="list-style-type: none"> • goggles • a disposable mist face mask covering mouth and nose <p>If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash goggles.</p>
Conditions for Safe Storage:	Store in the closed original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

National Exposure Standards:	No exposure standard allocated		
Syngenta Exposure Standards:	<i>Component</i>	<i>Exposure limit</i>	<i>Value type</i>
	S-metolachlor	10 mg/m ³	TWA
Biological Limit Values:	No biological limits allocated		
Engineering Controls:	No special requirements. Product is used outdoors.		
Personal Protective Equipment:	<p>Harmful if inhaled. DO NOT inhale spray mist. Will damage the eyes. Avoid contact with eyes. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. When opening the container, preparing and using the prepared spray wear:</p> <ul style="list-style-type: none"> • goggles • a disposable mist face mask covering mouth and nose <p>If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash goggles.</p>		

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellowish to brown clear liquid	Boiling Point/Range:	Not available
Odour:	Uncharacteristic, weak	Freezing/Melting Point:	Not available
pH:	5.2 at 1% w/v	Solubility:	Miscible
Vapour Pressure:	Not available	Density:	1.04 g/cm ³
Viscosity, dynamic:	110.7 mPa.s at 20°C 34.98 mPa.s at 40°C	Surface tension:	32.3-32.4 mN/m at 20°C

Flash Point:	120°C at 1,013.25 hPA (DIN 51758)	Explosive Properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not available	Oxidising Properties:	Not oxidising
Auto Ignition Temperature:	430°C	Combustibility:	Combustible C1
		Corrosiveness:	Not corrosive

Section 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	None known
Incompatible Materials:	None known
Hazardous Decomposition Products:	Combustion or thermal decomposition will evolve toxic and irritant vapours
Hazardous Reactions:	None known

Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure		
Acute:	Oral toxicity:	LOW TOXICITY Tests on rats indicate this product has a low toxicity following single doses of undiluted product LD ₅₀ = 2,267 mg/kg
	Dermal toxicity:	LOW TOXICITY Tests on rabbit indicate this product as a low toxicity following skin contact with undiluted product LD ₅₀ = >2,200 mg/kg
	Inhalation:	LOW TOXICITY Tests on rats indicate this product not harmful due to inhalation of undiluted product LC ₅₀ = >4.06 mg/L, 4 hours
	Skin irritation:	SLIGHT IRRITANT
	Eye irritation:	MODERATE IRRITANT
	Sensitisation:	SENSITISER
Chronic:	S-metolachlor technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, carcinogenic or reproductive effects.	

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<i>Toxicity to fish:</i>	Moderately toxic to fish Oncorhynchus mykiss (Rainbow Trout) LC ₅₀ = 4.3 mg/L, 96 hours
	<i>Toxicity to daphnia and other aquatic invertebrates:</i>	Slightly toxic to Daphnia <i>Daphnia magna</i> (Water Flea) EC ₅₀ = 24 mg/L, 48 hours
	<i>Toxicity to aquatic plants</i>	<i>Selenastrum capricornutum</i> (Green Algae) ErC ₅₀ = 0.058 mg/L, 72 hours NOErC = 0.021 mg/L, 72 hours
Persistence and Degradability:	<i>Stability in water:</i>	Degradation half life = 53-147 days Not persistent in water
	<i>Stability in soil:</i>	Degradation half life = 12-46 days Not persistent in soil
Biodegradability	Not readily biodegradable	
Mobility	Medium mobility in soil	
Bioaccumulative Potential:	Does not bioaccumulate	

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:	Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If no facility is available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with Local, State or Territory government regulations. DO NOT burn empty containers or product.
Special Precautions for Landfill or Incineration:	Not applicable

Section 14: TRANSPORT INFORMATION

LAND TRANSPORT ADG	Not a dangerous good in Australia		
UN Number:	None allocated	Packing Group:	None allocated
UN Proper Shipping Name:	None allocated	Special Precautions for User:	None allocated
Class:	None allocated	Hazchem Code:	None allocated
Subsidiary Risk:	None allocated		

SEA TRANSPORT IMDG			
UN Number:	3082	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (S-metolachlor)	Packing Group:	III
Class:	9	Marine Pollutant:	Marine pollutant

AIR TRANSPORT IATA - DGR			
UN Number:	3082	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (S-metolachlor)	Packing Group:	III
Class:	9		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	69865
Poisons Schedule (SUSDP):	5

Section 16: OTHER INFORMATION

Date of preparation or last revision: August 2015
Source of Data: The information provided in this SDS is sourced from Syngenta internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.
Note: This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions
CONTACT POINT: Regulatory Manager, Syngenta Australia Pty Ltd (02) 8876 8444 24 HOURS EMERGENCY CONTACT: 1800 033 111
This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.
DISCLAIMER This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Syngenta's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Syngenta shall have no liability.