

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	BOXER[®] GOLD Herbicide
Other Names:	Product code: A14429B
Recommended Use:	For the control of Annual Ryegrass and Toad Rush in barley and wheat
Company Details:	Syngenta Crop Protection Pty Limited 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:	Hazardous according to the criteria of NOHSC Australia
Risk Phrases:	R36/38 Irritating to eyes and skin
Safety Phrases:	–

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
Chemical Identity of Pure Substance:	Prosulfocarb
Synonym:	ICI 574
CAS Number:	52888-80-9
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)
Prosulfocarb	52888-80-9	80
S-metolachlor	87392-12-9	12
Copolymer butanol PO/EO	9038-95-3	10–<30
Dodecyl-benzene sulfonic acid Ca-salt linear in isobutanol	90194-26-6	30–60
Heavy aromatic solvent naphtha (petroleum)	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: Move 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:	No case of human poisoning due to this product is on record. The poisoning symptoms observed in experimental animals were non-specific
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>Small fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide</p> <p>Large fires 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:	<p>As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Exposure to decomposition products may be a hazard to health.</p>
Special Protective Precautions and Equipment for Fire Fighters:	In the event of fire, wear self-contained breathing apparatus.
Further Information:	DO NOT allow runoff from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.
Hazchem Code:	2X

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:	Procedure for spill <ol style="list-style-type: none">(1) Keep all bystanders away(2) Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length waterproof clothing and elbow-length PVC gloves(3) Reposition any leaking containers so as to minimise leakage.(4) Dam and absorb spill with an absorbent material (eg sand or soil)(5) Shovel the absorbed material 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:	Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing spray wear: <ul style="list-style-type: none">• cotton overalls, over normal clothing, buttoned to the neck and wrist• washable hat• elbow-length chemical resistant gloves• face shield or goggles When using the prepared spray wear: <ul style="list-style-type: none">• cotton overalls, over normal clothing, buttoned to the neck and wrist• washable hat• elbow-length chemical resistant gloves If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. After each day's use wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.
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:	Prosulfocarb	4 mg/m ³
	S-metolachlor	10 mg/m ³
	(8 hour time weighted average)	
	Manufacturer's recommendation for	
	Highly aromatic solvent naphtha (petroleum)	10 mg/m ³
		20 ppm
	(8 hour time weighted average)	
Biological Limit Values:	No biological limit allocated	
Engineering Controls:	No special requirements. Product is used outdoors	
Personal Protective Equipment:	<p>Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing spray wear:</p> <ul style="list-style-type: none"> • cotton overalls, over normal clothing, buttoned to the neck and wrist • washable hat • elbow-length chemical resistant gloves • face shield or goggles <p>When using the prepared spray wear:</p> <ul style="list-style-type: none"> • cotton overalls, over normal clothing, buttoned to the neck and wrist • washable hat • elbow-length chemical resistant gloves <p>If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. After each day's use wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.</p>	

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Slightly yellowish to brown solution	Boiling Point/Range:	Not available
Odour:	Musty	Freezing/Melting Point:	Not available
pH:	5-9 at 1% w/v	Solubility:	Emulsifiable in water
Vapour Pressure:	Not available	Specific Gravity or Density:	1.046 g/cm ³ at 20°C
Vapour Density:	Not available	Viscosity, dynamic:	32.1 mPa.s at 20°C 13.8 mPa.s at 40°C
Flash point:	85°C at 10-1.5 kPa Pensky-Martens cc	Explosive properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Non-flammable	Oxidising properties:	Not oxidising
Ignition Temperature:	Not available	Combustibility:	C1 combustible
		Corrosiveness:	Not corrosive

Section 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under standard 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 Hazardous polymerisation does not occur

Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:	
Acute:	<p>Oral toxicity: Low toxicity $LD_{50} = > 2,000$ mg/kg (female rat)</p> <p>Dermal toxicity: Low toxicity $LD_{50} = >2,000$ mg/kg (rat)</p> <p>Inhalation: Low toxicity Test results from similar formulations <i>960 g/L S-metolachlor EC</i> LC_{50} (4 hours) = >4.06 mg/L (rat) <i>800 g/L prosulfocarb EC</i> LC_{50} (4 hours) = >4.01 mg/L (rat)</p> <p>Skin irritation: Moderately irritant (rabbit)</p> <p>Eye irritation: Slight irritant (rabbit)</p> <p>Sensitisation: Not a sensitiser (guinea pig)</p>
Chronic:	Prosulfocarb technical and S-metolachlor technical have been extensively tested on laboratory animals and in test-tube systems. No evidence of mutagenic, carcinogenic, teratogenic or reproductive effects relevant to human exposure was obtained.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<p>Moderately toxic to fish LC_{50} (96 hours) = 3.5 mg/L Rainbow trout (<i>Oncorhynchus mykiss</i>)</p> <p>Highly toxic to aquatic invertebrates EC_{50} (48 hours) = 0.56 mg/L Water flea (<i>Daphnia magna</i>)</p> <p>Highly toxic to algae EC_{50} (96 hours) = 0.113 mg/L Green algae (<i>Selenastrum capricornutum</i>)</p>
Persistence and Degradability:	<p>Prosulfocarb is persistent in water</p> <p>Prosulfocarb is not persistent in soil</p> <p>S-metolachlor is not persistent in soil or water</p>
Mobility:	<p>Prosulfocarb has slight mobility in soil</p> <p>S-metolachlor has medium mobility in soil</p>
Environmental Fate (Exposure):	Rapidly degraded and mineralised by micro organisms
Bioaccumulative Potential:	<p>Prosulfocarb bioaccumulates</p> <p>S-metolachlor does not bioaccumulate</p>

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:	<p>Refillable containers Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p> <p>Other containers Triple or preferably pressure rinse containers before disposal. Add rinsings to 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 bury empty containers in 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. Empty containers and product should not be burnt.</p>
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	Packing Group:	III
UN Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (Prosulfocarb and S-metolachlor)	Special Precautions for User:	None allocated
Class:	9	Hazchem Code:	2X
Subsidiary Risk:	None allocated	Marine Pollutant:	Marine pollutant

AIR TRANSPORT ICAO / IATA			
UN Number:	3082	Packing Group:	III
UN Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (Prosulfocarb and S-metolachlor)	Special Precautions for User:	None allocated
Class:	9	Hazchem Code:	2X
Subsidiary Risk:	None allocated		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	61234
Poisons Schedule (SUSDP):	Schedule 5

Section 16: OTHER INFORMATION

Date of preparation or last revision: January 2008
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 Affairs Manager, Syngenta Crop Protection Pty Limited (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.

®Registered trademark of a Syngenta Group Company