

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	ENVOKE[®] Herbicide
Other Names:	Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (Trifloxysulfuron sodium) Applicable only for marine and air transport
	Product code: A9842A
Recommended Use:	For the control of certain broadleaf weeds and suppression of nutgrass in Cotton
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:	Not classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
Risk Phrases:	—
Safety Phrases:	—

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
Chemical Identity of Pure Substance:	Trifloxysulfuron sodium
Synonym:	CGA 362622
CAS Number:	199119-58-9

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/w)
Trifloxysulfuron sodium	199119-58-9	75
Silica (diatomaceous earth)	61790-53-2	10 - 20
Lignosulfonic acid, sodium salt	8061-51-6	0 - 5
Other ingredients determined not to be hazardous	-	to 100

Section 4: FIRST AID MEASURES

<p>Description of Necessary First Aid Measures:</p>	<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</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 Poisons Information Centre immediately</p>
<p>Poisoning Symptoms: Medical Advice:</p>	<p>Poisoning symptoms in laboratory animals were non-specific</p> <p>There is no specific antidote available. Treat symptomatically</p>

Section 5: FIRE FIGHTING MEASURES

<p>Suitable Extinguishing Media:</p>	<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>
<p>Hazards from Combustion Products:</p>	<p>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.</p>
<p>Special Protective Precautions and Equipment for Fire Fighters:</p>	<p>Wear protective clothing and self-contained breathing apparatus. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.</p>

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) <i>For a product spill:</i> Sweep granule concentrates into a pile. <i>For a prepared spray spill:</i> Dam and absorb spill with an absorbent material (e.g. sand or soil). (5) Shovel the 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 kg bury in a secure landfill site • For quantities greater than 50 kg 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 the 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. Wash hands after use. When preparing spray wear: <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist (or equivalent clothing) • elbow-length PVC gloves After each day's use wash gloves and contaminated clothing
Conditions for Safe Storage:	Store in the closed, original container in a dry, cool, well ventilated area out of direct sunlight

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

	Component	Exposure limit	Value type
National Exposure Standards:	Silica (uncalcined)	10 mg/m ³	8 h TWA
	(respirable dust)	2 mg/m ³	8 h TWA
Syngenta Exposure Standards	Trifloxysulfuron sodium	10 mg/m ³	8 h TWA
Biological Limit Values:	No biological limit allocated		
Engineering Controls:	No special requirements. Product is used outdoors		
Personal Protective Equipment:	Will irritate the eyes and skin. Avoid contact with eyes and skin. Wash hands after use. When preparing spray wear: <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist (or equivalent clothing) • elbow-length PVC gloves After each day's use wash gloves and contaminated clothing		

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light beige to brown granules	Boiling Point/Range:	Not applicable
Odour:	Non-specific	Freezing/Melting Point:	Not available
pH:	8–12 at 1% w/v deionised water	Solubility:	Dispersible in water
Vapour Pressure:	Not available	Bulk Density:	0.6–0.8 g/cm ³
Vapour Density:	Not available	Surface tension:	55.4 mN/m at 20°C

Flash Point:	Not applicable	Explosive Properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not flammable	Oxidising Properties:	Not oxidising
Minimum Ignition Temperature:	> 0.001 – < 2 kJ	Combustibility:	Combustible
Dust explosion class:	Forms flammable dust clouds	Corrosiveness:	Non-corrosive to tin plate, galvanised sheet metal, iron steel or stainless steel.
		Burning number:	2 at 20°C 3 at 100°C

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 Hazardous polymerization does not occur

Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:	
Acute:	<p>Oral toxicity: LOW TOXICITY Tests on rats indicate this product has a low toxicity following single doses of undiluted product. (LD₅₀ > 5,000 mg/kg)</p> <p>Dermal toxicity: LOW TOXICITY Tests on rats indicate this product has a low toxicity following skin contact with undiluted product. (LD₅₀ > 2,000 mg/kg)</p> <hr/> <p>Inhalation: LOW TOXICITY Tests on rats indicate this product not harmful due to inhalation of undiluted product. (LC₅₀ (4h) > 2.55 mg/L)</p> <p>Skin irritation: NON IRRITANT</p> <p>Eye irritation: NON IRRITANT</p> <p>Sensitisation: NOT A SENSITISER</p>
Chronic:	Trifloxysulfuron sodium technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, carcinogenic, teratogenic neurotoxic or reproductive effects.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<p><i>Toxicity to fish:</i> Practically non-toxic to fish <i>Oncorhynchus mykiss</i> (rainbow trout): LC₅₀ >146 mg/L, 96 h</p> <p><i>Toxicity to daphnia and other aquatic invertebrates:</i> Practically non-toxic to aquatic invertebrates <i>Daphnia magna</i> (Water flea): EC₅₀ >139 mg/L, 48 h</p> <p><i>Toxicity to algae:</i> Very toxic to algae <i>Pseudokirchneriella subcapitata</i> (green algae): EC₅₀ = 0.043 mg/L, 72 h</p>
Persistence and Degradability:	Trifloxysulfuron sodium is not persistent in soil or water
Mobility	Trifloxysulfuron sodium has high mobility in soil
Environmental Fate (Exposure):	Incorporated into organic molecules
Bioaccumulative Potential:	Trifloxysulfuron sodium has low potential for bioaccumulation

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:	Rinse containers before disposal. Add rinsings to spray tank. 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. Empty containers and product should not be burnt.
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:	3077	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Solid, N.O.S. (Trifloxysulfuron sodiuml)	Packing Group:	III
Class:	9	Marine Pollutant:	Marine pollutant

AIR TRANSPORT IATA - DGR			
UN Number:	3077	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Solid, N.O.S. (Trifloxysulfuron sodiuml)	Packing Group:	III
Class:	9		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	54157
Poisons Schedule (SUSDP):	Exempt

Section 16: OTHER INFORMATION

Date of preparation or last revision: May 2010
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.