


## SAFETY DATA SHEET

### Section 1: Identification: Product identifier and chemical identity

<b>Product Identifier:</b>	<b>TALINOR Herbicide</b>
<b>Other Means of Identification:</b>	<b>Proper shipping name:</b> Environmentally Hazardous Substance, Liquid, N.O.S. (Bicyclopyrone and Bromoxynil octanoate) <b>Applicable only for marine and air transport</b>
	<b>Product code:</b> A19278A
<b>Recommended Use:</b>	Post-emergent control of a range of broadleaf weeds in wheat and barley
<b>Details of manufacturer or importer</b>	<b>Syngenta Australia Pty Ltd</b> ABN 33 002 933 717
<b>Address:</b>	<b>Level 1, 2-4 Lyonpark Road</b> <b>MACQUARIE PARK NSW 2113</b> <b>AUSTRALIA</b>
<b>Website:</b>	<b>syngenta.com.au</b>
<b>Phone Number:</b>	<b>(02) 8876 8444</b>
<b>Emergency Phone Number:</b>	<b>24 hours - 1800 033 111</b>

### Section 2: Hazards identification

<b>Classification of the Hazardous Chemical:</b>	<ul style="list-style-type: none"><li>• Acute toxicity – oral – Category 4</li><li>• Skin sensitisation – Category 1A</li><li>• Reproductive toxicity – Category 2</li></ul>
<b>Signal Word:</b>	Warning
<b>Hazard Statement(s):</b>	H302 Harmful if swallowed H317 May cause allergic skin reaction H361d Suspected of damaging the unborn child
<b>Precautionary Statement(s):</b>	P102 Keep out of reach of children. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. P331 DO NOT induce vomiting. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P391 Collect spillage. P501 Dispose of contents/ container to an approved waste disposal plant.
<b>Hazard Symbols:</b>	

### Section 3: Composition and information on ingredients

SUBSTANCE			
<b>Chemical Identity of Pure Substance:</b>	Bicyclopyrone	Bromoxynil octanoate	Cloquintocet-mexyl
<b>Synonym:</b>	NOA449280	ASF606	CGA185072
<b>CAS Number:</b>	352010-68-5	1689-99-2	99607-70-2

MIXTURE		
Chemical Identity of Ingredients:	CAS No	Proportion (% w/w)
Bicyclopyrone	352010-68-5	3.75
Bromoxynil octanoate	1689-99-2	17.5
Cloquintocet-mexyl	99607-70-2	0.94
Heavy aromatic solvent naphtha (petroleum)	64742-94-5	30 – 40
Acetophenone	98-86-2	25 – 35
Other ingredients determined not to be hazardous	-	to 100

### Section 4: First aid measures

<b>Description of Necessary First Aid Measures:</b>	In case of poisoning by any exposure route get to a doctor or hospital quickly. Phone Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.
<b>Ingestion:</b>	If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.
<b>Skin contact:</b>	Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
<b>Inhalation:</b>	Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest.
<b>Symptoms Caused by Exposure:</b>	Poisoning symptoms in laboratory animals were non-specific
<b>Medical Attention and Special Treatment:</b>	There is no specific antidote available. Treat symptomatically.

## Section 5: Fire fighting measures

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

## Section 6: Accidental release measures

<b>Personal Precautions, Protective Equipment and Emergency Procedures:</b>	<p>In case of spillage it is important to take all steps necessary to</p> <ul style="list-style-type: none"> <li>• Avoid eye and skin contact</li> <li>• Avoid contamination of waterways</li> <li>• Wear full length clothing and PVC gloves</li> <li>• Keep all bystanders away</li> </ul>
<b>Environmental precautions:</b>	<p>Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.</p>
<b>Methods and Materials for Containment and Clean Up:</b>	<p><b>Procedure for spill</b></p> <ol style="list-style-type: none"> <li>(1) Keep all bystanders away</li> <li>(2) Wear full length clothing and PVC gloves</li> <li>(3) Reposition any leaking containers so as to minimise further leakage</li> <li>(4) Dam and absorb spill with an absorbent material (eg sand or soil)</li> <li>(5) Shovel the absorbed spill into drums</li> <li>(6) Disposal of the absorbed material will depend upon the extent of the spill <ul style="list-style-type: none"> <li>• For quantities up to 50 L of product bury in a secure landfill site</li> <li>• 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</li> </ul> </li> <li>(7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable</li> </ol>

## Section 7: Handling and storage

<b>Precautions for Safe Handling:</b>	Harmful if swallowed. May irritate eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear <ul style="list-style-type: none"> <li>cotton overalls, over normal clothing, buttoned to the neck and wrist</li> <li>elbow-length chemical resistant gloves.</li> </ul> Wash hands after use. After each day's use, wash gloves and contaminated clothing.
<b>Conditions for Safe Storage, Including any Incompatibilities:</b>	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 and personal protection

### ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

	Component	Exposure limit	Value type
<b>National Exposure Standards:</b>	No exposure standard allocated		
<b>Syngenta Exposure Standards:</b>	Bicyclopyrone	2 mg/m <sup>3</sup>	TWA
	Cloquintocety- mexyl	10 mg/m <sup>3</sup>	TWA
<b>Manufacturer's Exposure Standards:</b>	Acetophenone	33 mg/m <sup>3</sup>	DNEL
	Heavy aromatic solvent naphtha (petroleum)	50 mg/m <sup>3</sup>	TWA
<b>Biological Limit Values:</b>	No biological limits allocated		
<b>Engineering Controls:</b>	No special requirements. Product is used outdoors.		
<b>Personal Protective Equipment:</b>	Harmful if swallowed. May irritate eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear <ul style="list-style-type: none"> <li>cotton overalls, over normal clothing, buttoned to the neck and wrist</li> <li>elbow-length chemical resistant gloves.</li> </ul> Wash hands after use. After each day's use, wash gloves and contaminated clothing.		

## Section 9: Physical and chemical properties

<b>Appearance:</b>	Yellow to brown liquid	<b>Boiling Point:</b>	Not available
<b>Odour:</b>		<b>Freezing Point:</b>	Not available
<b>pH:</b>	2 – 6 at 1%	<b>Solubility:</b>	Miscible in water
<b>Vapour Pressure:</b>	Not available	<b>Density:</b>	1.1 g/cm <sup>3</sup>
<b>Vapour Density:</b>	Not available		

<b>Flash Point:</b>	92 ± 5°C	<b>Explosive Properties:</b>	Not explosive
<b>Upper and Lower Flammable (Explosive) Limits in Air:</b>	Not known	<b>Oxidising Properties:</b>	Not oxidising
<b>Auto Ignition Temperature:</b>	410 ± 20°C	<b>Combustibility:</b>	Not combustible
		<b>Corrosiveness:</b>	Corrosive to galvanised sheet metal

## Section 10: Stability and reactivity

<b>Reactivity:</b>	Stable under standard conditions
<b>Chemical Stability:</b>	None known
<b>Possibility of Hazardous Reactions:</b>	None known
<b>Conditions to Avoid:</b>	Combustion or thermal decomposition will evolve toxic and irritant vapours.
<b>Incompatible Materials:</b>	No hazardous reactions by normal handling and storage according to provisions.
<b>Hazardous Decomposition Products:</b>	Stable under standard conditions

## Section 11: Toxicological information

Health Effects from Likely Routes of Exposure:	
<b>Acute</b>	<p><b>Oral toxicity:</b> <b>HARMFUL</b> Tests on rats indicate this product is harmful following single doses of undiluted product. LD<sub>50</sub> = 1030 mg/kg</p> <p><b>Dermal toxicity:</b> <b>LOW TOXICITY</b> Tests on rabbits indicate this product has a low toxicity following skin contact with undiluted product. LD<sub>50</sub> &gt; 5000 mg/kg</p> <p><b>Inhalation:</b> <b>LOW TOXICITY</b> Tests on rats indicate this product is not harmful due to inhalation of undiluted product. LC<sub>50</sub> (4h) &gt; 5.11 mg/L air</p> <p><b>Skin irritation:</b> <b>SLIGHT IRRITANT</b></p> <p><b>Eye irritation:</b> <b>SLIGHT IRRITANT</b></p> <p><b>Sensitisation:</b> <b>SENSITISER</b></p>
<b>Chronic</b>	<p><b>Bicyclopyrone technical</b> has been extensively tested on laboratory mammals and in test tube systems. No evidence was obtained of mutagenic, carcinogenic or neurotoxic effects. Some evidence of adverse effects on development, based on animal experiments..</p> <p><b>Bromoxynil octanoate technical</b> has been extensively tested on laboratory mammals and in test tube systems. No evidence was obtained of mutagenic, carcinogenic, or neurotoxic effects. Bromoxynil octanoate has been classified as suspected of damaging fertility or the unborn child on the basis of studies in rats, mice and rabbits.</p> <p><b>Cloquintocet-mexyl technical</b> has been extensively tested on laboratory mammals and in test tube systems. No evidence was obtained of mutagenic, carcinogenic, teratogenic neurotoxic or reproductive effects.</p>

## Section 12: Ecological information

<b>Ecotoxicity</b>	<b>Toxicity to fish:</b>	<p>Bicyclopyrone: <i>Oncorhynchus mykiss</i> (rainbow trout): LC<sub>50</sub> &gt;100 mg/L, 96 h</p> <p>Bromoxynil octanoate: <i>Oncorhynchus mykiss</i> (rainbow trout): LC<sub>50</sub> = 0.041 mg/L, 96 h</p> <p>Cloquintocet-mexyl: <i>Oncorhynchus mykiss</i> (rainbow trout): LC<sub>50</sub> &gt;76 mg/L, 96 h</p>
	<b>Toxicity to daphnia and other aquatic invertebrates:</b>	<p>Bicyclopyrone: <i>Daphnia magna</i> (Water flea): EC<sub>50</sub> &gt;100 mg/L, 48 h</p> <p>Bromoxynil octanoate: <i>Daphnia magna</i> (Water flea): EC<sub>50</sub> = 0.046 mg/L, 48 h</p> <p>Cloquintocet-mexyl: <i>Daphnia magna</i> (Water flea): EC<sub>50</sub> &gt;100 mg/L, 48 h</p>
	<b>Toxicity to algae:</b>	<p>Bicyclopyrone: <i>Pseudokirchneriella subcapitata</i> (green algae): ErC<sub>50</sub> = 5.4 mg/L, 96 h</p> <p>Bromoxynil octanoate: <i>Pseudokirchneriella subcapitata</i> (green algae): EC<sub>50</sub> = 0.22 mg/L, 72 h</p> <p>Cloquintocet-mexyl: <i>Desmodesmus subspicatus</i> (green algae): EbC<sub>50</sub> = 0.53 mg/L, 72 h</p>
	<b>Toxicity to fish:</b>	<p>Bicyclopyrone: <i>Oncorhynchus mykiss</i> (rainbow trout): LC<sub>50</sub> &gt;100 mg/L, 96 h</p> <p>Bromoxynil octanoate: <i>Oncorhynchus mykiss</i> (rainbow trout): LC<sub>50</sub> = 0.041 mg/L, 96 h</p> <p>Cloquintocet-mexyl: <i>Oncorhynchus mykiss</i> (rainbow trout): LC<sub>50</sub> &gt;76 mg/L, 96 h</p>
<b>Persistence and Degradability:</b>	<p>Bicyclopyrone is not persistent in soil and is not readily biodegradable. Bromoxynil octanoate is not readily biodegradable. Cloquintocet-mexyl is not persistent in soil or water.</p>	
<b>Mobility in Soil:</b>	<p>Bicyclopyrone has very high mobility in soil. Cloquintocet-mexyl is immobile in soil.</p>	
<b>Bioaccumulative Potential:</b>	<p>Cloquintocet-mexyl does not bioaccumulate</p>	

### Section 13: Disposal considerations

<b>Disposal Methods:</b>	<p><b>Returnable containers</b> Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p> <p><b>Non-returnable containers</b> 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 deliver empty packaging to an approved waste management facility. If an approved waste management facility is not 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 relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.</p>
<b>Special Precautions for Incineration or Landfill:</b>	Not applicable

### Section 14: Transport information

<b>LAND TRANSPORT</b> ADG		Not a dangerous good in Australia	
<b>UN Number:</b>	None allocated	<b>Packing Group:</b>	None allocated
<b>UN Proper Shipping Name:</b>	None allocated	<b>Special Precautions for User:</b>	None allocated
<b>Transport Hazard Class:</b>	None allocated	<b>Hazchem or Emergency Action Code:</b>	None allocated
<b>Subsidiary Risk:</b>	None allocated		

<b>SEA TRANSPORT</b> IMDG			
<b>UN Number:</b>	3082	<b>Subsidiary Risk:</b>	None allocated
<b>UN Proper Shipping Name:</b>	Environmentally Hazardous Substance, Liquid, N.O.S. (Bicyclopyrone and Bromoxynil octanoate)	<b>Packing Group:</b>	III
<b>Transport Hazard Class:</b>	9	<b>Environmental hazards for Transport Purposes:</b>	Marine pollutant

<b>AIR TRANSPORT</b> IATA - DGR			
<b>UN Number:</b>	3082	<b>Subsidiary Risk:</b>	None allocated
<b>UN Proper Shipping Name:</b>	Environmentally Hazardous Substance, Liquid, N.O.S. (Bicyclopyrone and Bromoxynil octanoate)	<b>Packing Group:</b>	III
<b>Transport Hazard Class:</b>	9		

## Section 15: Regulatory information

APVMA Product Number: 82256

Poisons Schedule (SUSMP): 6

## Section 16: Any other relevant information

**Date of preparation or last revision:** May 2017

**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 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.