

MATERIAL SAFETY DATA SHEET

COMPANY DETAILS: Syngenta Crop Protection Limited Tower II, Level 7, 110 Symonds Street Private Bag 92618, Symonds Street AUCKLAND NEW ZEALAND	Telephone No.: (weekdays) 09 - 306 1500 National Poisons & Hazchem Information Centre : 0800 POISON (0800 764 766) Emergency No. (24 Hours) 0800 734 607
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IDENTIFICATION

PRODUCT NAME: TOPIK®

Formulation type:	Emulsifiable concentrate	Dangerous Goods Class/ subsidiary risk	9
Active Ingredients:	-clodinafop-propargyl CGA184927	Hazchem Code:	2X
Product Code No.:	A-8588C	Packaging Group:	III
Chemical types:	- carboxylic acid derivative	Toxic Substances Schedule:	S4
UN Number:	3082	Marine pollutant	Yes
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS CLODINAFOF-PROPARGYL 24%) MARINE POLLUTANT		

USE: Herbicide for the control of wild oats and canary grasses in Wheat , Triticale, Ryecorn and Durum wheat.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance:	Dark amber liquid	Behaviour in water:	Emulsifiable
Odour:	Ester-like odour	Flash Point:	75°C (closed cup)
Specific gravity (H₂O=1)	1.08 (at 20°C)	Flammability:	Non-flammable

OTHER PROPERTIES

Combustibility:	C1 - Combustible	Volatility:	clodinafop-propargyl: 4.3 µg/m ³ (30° C) cloquintocet-mexyl: 2.1 µg/m ³
Viscosity:	132 cps		
Corrosiveness:	Non-corrosive		

INGREDIENTS -

	CAS No.	Content (% w/v)
clodinafop-propargyl (technical grade)		28
to give clodinafop-propargyl	105512-06-9	24
cloquintocet-mexyl (technical grade)	99607-70-2	6
methyl naphthalenes		<60
methlpyrrolidone		<15
Other ingredients determined not to be hazardous		<10

HEALTH HAZARD INFORMATION

HEALTH EFFECTS

ACUTE

Toxicity

- This product is slightly hazardous (WHO Hazard Class III)

Swallowed: **SLIGHT TOXICITY**

Tests on rats using a less concentrated overseas formulation (TOPIK 080 EC) and the active ingredients indicate slight toxicity following single doses of the undiluted product.

(LD₅₀ >2276 mg/kg, for **TOPIK 240 EC**,
=1829 mg/kg, for **clodinafop-propargyl technical**,
>2000 mg/kg, for **cloquintocet-mexyl technical**
=1580 mg/kg, for **gamma butyrolactone**)

Dermal LOW TOXICITY

absorption: Tests on rats using a less concentrated overseas formulation (TOPIK 080 EC) and the active ingredients indicate a low toxicity due to skin contact with the undiluted product.

(LD₅₀ >4000 mg/kg, for **TOPIK 240EC**,
>2000 mg/kg, for **clodinafop-propargyl technical**,
>2000 mg/kg, for **cloquintocet-mexyl technical**)

Inhaled: LOW TOXICITY

Tests on rats using the active ingredients indicate a low toxicity due to inhalation of the undiluted product.

(LC₅₀ (4 h) >2325 mg/m³, for **clodinafop-propargyl technical**, highest attainable concentration,
>935 mg/m³, for **cloquintocet-mexyl technical**, highest attainable concentration)

Irritation - (based on studies with rabbits using the main ingredients)

Eye: **STRONG IRRITANT**

Skin: **MODERATE IRRITANT**

Sensitisation - (based on studies with guinea pigs using the active ingredients)

Skin: **POTENTIAL SKIN SENSITISER (ie contact allergenic material)**

Poisoning Symptoms: Poisoning symptoms observed for laboratory mammals were non-specific.

CHRONIC (Active Ingredients)

Clodinafop-propargyl technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, teratogenic or reproductive effects was obtained. **Clodinafop-propargyl technical** induced liver toxicity and benign and malignant liver tumours in mice fed high daily doses over their lifetime. Rats fed high doses showed mild liver toxicity but did not develop tumours while no liver effects were observed for dogs fed high doses. The liver tumour finding occurring at high doses is believed due to **clodinafop-propargyl** inducing proliferative effects genetically pre-existing in mice and has no relevance to humans because the cellular changes which underlie it are rodent-specific and have been shown experimentally not to occur in primates.

Cloquintocet-mexyl technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, carcinogenic, teratogenic, or reproductive effects was obtained.

FIRST AID

In case of poisoning by any exposure route contact a doctor or Poisons Information Centre.

- Swallowed: If poisoning occurs contact a doctor or Poisons Information Centre. If swallowed DO NOT induce vomiting. Begin artificial respiration if victim is not breathing. Use mouth to nose rather than mouth to mouth
- Eye: Flush with large quantities of clean tap water for at least 15 minutes. Seek medical attention.
- Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water.
- Inhaled: Move affected person to fresh air and keep at rest until recovered.

ADVICE TO DOCTOR

No specific antidote exists. Treat symptomatically.

PRECAUTIONS FOR USE**ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS****EXPOSURE STANDARDS**

No exposure standards have been set for the components of this product.

Exposure Potential - Swallowing is unlikely under normal conditions of usage. Skin uptake of **clodinafop-propargyl technical** and **cloquintocet-mexyl technical** can occur. Inhalation of spray mist is a possible route of exposure. This product is diluted with water prior to use as a spray. This diluted form is less toxic by all routes of exposure.

Re-entry Period - Do not enter treated areas without protective clothing until the spray has dried.

ENGINEERING CONTROLS

No special requirements. Product is used outdoors.

PERSONAL PROTECTION

Harmful if swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid inhaling spray mist. Avoid contact with eyes and skin. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, elbow-length PVC gloves and face shield or goggles. If product gets on skin, immediately wash area with soap and water. If product gets in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or

goggles and contaminated clothing. Use only protective clothing bearing the mark of the Standards Association of Australia.

FLAMMABILITY

This product is NON-FLAMMABLE. Product is combustible.

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT

Store in tightly sealed original containers in a dry secure place away from fertilisers, feed and food. Store out of direct sunlight. Keep out of reach of children, unauthorised persons and animals.

SPILLS AND DISPOSAL

In case of spillage it is important to take all steps necessary to:

- Avoid eye and skin contact.
- Avoid contamination of waterways.

Procedure for spill:

- (1) Keep all bystanders away.
- (2) Wear goggles, half face-piece respirator with combined dust and vapour cartridge, 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 (e.g. sand or soil).
- (5) Shovel the absorbed spill into drums.
- (6) Dispose of the absorbed material will depend upon the extent of the spill.
 - 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 the spill area with detergent and water and rinse with the smallest volume of water practicable

Dispose of empty, used containers by:

- (a) Triple rinsing or preferably pressure rinsing containers with water. Add the rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.
- (b) If recycling, replace cap and return clean containers to recycler or designated collection point.
- (c) 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.
- (d) Burning of empty containers if circumstances, especially wind direction, permit is an alternative method.

FIRE/EXPLOSION HAZARD

This product is non-flammable and non-explosive. Product is combustible. Extinguish warehouse and factory fires using fine-water spray or foam. During a fire this product may release smoke and hazardous decomposition products. When fighting a major fire wear an air-supplied respirator. Do not allow fire-water to enter drains.

OTHER INFORMATION

Clodinafop-propargyl technical is practically non-toxic to birds, crustaceans, earthworms, soil microorganisms and bees, and highly toxic to fish [LC₅₀ (96 h) = 0.4 mg/L for rainbow trout].

Cloquintocet-mexyl technical is practically non-toxic to birds, fish, crustacea, earthworms, soil microorganisms and bees.

Note: This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. 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.

CONTACT POINT:	Business Manager - Crop Protection	(09) 306 1500
	24 HOURS EMERGENCY CONTACT:	0800 734 607

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 MSDS 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.