




Infosafe No™ 3NUK1	Issue Date : June 2020	ISSUED by NUFARM
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 Product Name **CREST@520**

## 1. Identification

<b>GHS Product Identifier</b>	CREST@520
<b>Product Code</b>	00185
<b>Product Type</b>	Herbicide
<b>Company Name</b>	Nufarm NZ
<b>Address</b>	6 Manu Street, Otahuhu Auckland 2024 New Zealand
<b>Telephone/Fax Number</b>	Tel: 0-9-270 4150
<b>Emergency phone number</b>	0800 651 911
<b>E-mail Address</b>	nzinfo@nufarm.com
<b>Recommended use of the chemical and restrictions on use</b>	A selective post emergence herbicide for the control of grass weeds and storksbill in many broadleaf crops, orchards and forestry.
<b>Other Information</b>	This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

## 2. Hazard Identification

<b>GHS classification of the substance/mixture</b>	Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.
<b>Signal Word (s)</b>	WARNING
<b>Hazard Statement (s)</b>	H227 Combustible liquid. H302 Harmful if swallowed. H316 Causes mild skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H373 May cause damage to organs through prolonged or repeated exposure . H410 Very toxic to aquatic life with long lasting effects. H432 Toxic to terrestrial vertebrates.
<b>Precautionary statement – General</b>	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
<b>Pictogram (s)</b>	Exclamation mark, Health hazard, Environment
	  
<b>Precautionary statement – Prevention</b>	P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
<b>Precautionary statement – Response</b>	P370+P378 In case of fire: Use In case of fire use water fog, foam, carbon dioxide or dry chemical. for extinction. P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth.

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<b>Precautionary statement – Storage</b>	P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 Get medical advice/attention if you feel unwell.
<b>Precautionary statement – Disposal</b>	P332+P313 If skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P391 Collect spillage. P403+P235 Store in a well-ventilated place. Keep cool.
<b>Other Information</b>	P501 In the case of a substance that is in compliance with a HSN0 approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details. 3.1D Flammable liquid, 6.1D acute toxicant, 6.3B skin irritant, 6.4A eye irritant, 6.9B target organ toxicant, 9.1A aquatic toxicant, 9.3B terrestrial vertebrate toxicant.

### 3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Haloxyfop-P as the methyl ester	72619-32-0	520 g/L
	Aromatic Hydrocarbon	64742-94-5	30-60 %

### 4. First-aid measures

<b>First Aid Measures</b>	For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention.
<b>Inhalation</b>	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
<b>Skin</b>	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.
<b>Eye contact</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Remove contact lenses, if present and easy to do. Seek Medical assistance even if there are no immediate symptoms.
<b>First Aid Facilities</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
<b>Advice to Doctor</b>	Treat symptomatically.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Unsuitable Extinguishing Media</b>	Do not use water in a jet.
<b>Hazards from Combustion Products</b>	On burning will emit toxic fumes. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
<b>Special Protective Equipment for fire fighters</b>	Full protective clothing and self-contained breathing apparatus.
<b>Specific Methods</b>	Keep up wind. Do not allow washings to reach sewage or effluent systems. Keep containers cool with water spray.

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<b>Hazchem Code</b>	3Z
<b>Decomposition Temp.</b>	Information not available.
<b>Other Information</b>	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: 2 for 500L or more

## 6. Accidental release measures

<b>Spills &amp; Disposal</b>	Wear protective clothing. Clear area of unprotected personnel. Eliminate all ignition sources and naked lights. Use non-sparking utensils. Contain spill and absorb with sand, soil or absorbent granules. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. Prevent material from entering waterways. Absorb spills with inert material and place in waste containers. Dispose of waste safely in an approved landfill. Prevent material from coming into contact with Class 1,2,3.2,4 or 5 substances. Wash area with water and detergent and absorb with inert material. Dispose of waste safely in an approved landfill.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Environmental Precautions</b>	This product is a herbicide and spills can damage crops, pastures and desirable vegetation. Prevent contamination of soil and water.

## 7. Handling and storage

<b>Handling and Storage</b>	The person mixing or applying CREST 520 must be a 'Qualified Contractor' or 'Qualified Loader'. For more information refer to the Hazardous Substances Property Controls Notice 2017. It is the duty of the PCBU that a person who uses, handles, manufactures or stores a hazardous substance (including hazardous waste) is provided information, instruction and training in accordance with Regulation 4.5 of the Health and Safety at work (Hazardous Substances) Regulations 2017.
<b>Precautions for Safe Handling</b>	Avoid skin and eye contact and inhalation of spray mist. CERTIFIED HANDLER : Not Required TRACKING: Not required. RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3 litres or more of CREST 520 is applied within 24 hours. BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants. Do not apply CREST 520 onto or into water.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep out of reach of children. Store in original container tightly closed and in a locked dry, cool area away from sources of ignition, seeds, fertilisers and foodstuffs. Storage must be in accordance with NZS 8409 Management of Agrichemicals. Do not store with HSNO Class 1,2,3.2,4 or 5 substances. Stores containing 100L of CREST 520 require secondary containment and are subject to signage, and more than 100L require emergency response plans. Do not store near heat or flame. Stores exceeding 500 litres of this substance must have at least 2 fire extinguishers.
<b>Other Information</b>	Always read the label and any attached leaflet before use. Aggregate Storage Volume Thresholds: When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

## 8. Exposure controls/personal protection

<b>Occupational exposure limit values</b>	No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product. ADE = 0.0003mg/kg bw/day for haloxyfop-P-methyl PDE (food) = 0.00024mg/kg bw/day for haloxyfop-P-methyl PDE (drinking water) = 0.00006mg/kg bw/day for haloxyfop-P-methyl
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<b>Appropriate engineering controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.
<b>Personal Protective Equipment</b>	When opening the container, preparing spray and using the prepared spray wear safety goggles, chemically resistant gloves, cotton overalls buttoned to the neck and wrist, and boots.
<b>Hygiene Measures</b>	Do not eat ,drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work. Wash splashes of concentrate from skin immediately.

## 9. Physical and chemical properties

<b>Form</b>	Liquid
<b>Appearance</b>	Amber liquid
<b>Decomposition Temperature</b>	Information not available.
<b>Melting Point</b>	-12.4°C (for haloxyfop-P-methyl)
<b>Freezing Point</b>	186°C (for haloxyfop-P-methyl)
<b>Solubility in Water</b>	Forms an emulsion in water.
<b>Specific Gravity</b>	1.086 - 1.108g/mL @ 20°C
<b>pH</b>	4.0 - 8.0
<b>Vapour Pressure</b>	0.055 mPa (25°C) for haloxyfop-P-methyl
<b>Vapour Density (Air=1)</b>	Information is not available.
<b>Partition Coefficient: n-octanol/water</b>	Kow logP = 4.00 for haloxyfop-P-methyl
<b>Flash Point</b>	69.5°C
<b>Flammability</b>	Flammable liquid
<b>Auto-Ignition Temperature</b>	Information not available.
<b>Flammable Limits - Lower</b>	Information is not available.
<b>Flammable Limits - Upper</b>	Information is not available.
<b>Initial boiling point and boiling range</b>	>280°C (for haloxyfop-P-methyl)
<b>Kinematic Viscosity</b>	Information not available.
<b>Other Information</b>	(EC) Emulsifiable concentrate

## 10. Stability and reactivity

<b>Chemical Stability</b>	Stable under normal conditions of handling and storage.
<b>Conditions to Avoid</b>	Avoid extremes of temperature.
<b>Incompatible Materials</b>	Strong acids, alkalis or oxidising materials.
<b>Hazardous Polymerization</b>	Hazardous polymerisation will not occur.

## 11. Toxicological Information

<b>Toxicology Information</b>	No specific toxicological data is available for this product. Data below is for constituents.
<b>Acute Toxicity - Oral</b>	LD50 ( male rat) is 300mg/kg for haloxyfop-P- methyl.

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<b>Acute Toxicity - Dermal</b>	Acute percutaneous LD50 (rat) >2,000mg/kg for haloxyfop-P-methyl
<b>Eye</b>	May cause slight conjunctival eye irritation with slight discharge (haloxyfop-R, methyl ester)
<b>Respiratory sensitisation</b>	Not a respiratory sensitiser.
<b>Skin Sensitisation</b>	Not a skin sensitiser.
<b>Germ cell mutagenicity</b>	Information not available.
<b>Carcinogenicity</b>	Information not available.
<b>Reproductive Toxicity</b>	Information not available.
<b>STOT-repeated exposure</b>	Causes target organ damage.
<b>Aspiration Hazard</b>	Information not available.
<b>Skin corrosion/irritation</b>	Causes mild skin irritation.
<b>Subchronic/Chronic Toxicity</b>	Target organ: Hepatotoxicity (liver) for haloxyfop-R, methyl ester NOEL is 0.065mg/kg bw/day for haloxyfop-P-methyl ester

## 12. Ecological information

<b>Persistence and degradability</b>	DT50 in water is 48 days at pH7 for haloxyfop-R, methyl ester
<b>Bioaccumulative Potential</b>	Haloxyfop-R, methyl ester is not bioaccumulative.
<b>Environmental Protection</b>	Avoid contamination of any water supply with product or empty container.
<b>Basis for Assessment</b>	Ecotoxicological data have not been determined specifically for this product. Data below is for the active ingredient unless otherwise stated.
<b>Acute Toxicity - Fish</b>	LC50 (96h) rainbow trout is 0.46 mg/L for haloxyfop-P-methyl.
<b>Acute Toxicity - Daphnia</b>	EC50 (48h) daphnia is >12.3 mg/L for haloxyfop-P-methyl.
<b>Acute Toxicity - Algae</b>	EC50 (5d) algae is 1.72mg/L for haloxyfop-P-methyl.
<b>Acute Toxicity - Other Organisms</b>	LD50 bobwhite quail is 1,159mg/kg for haloxyfop-P-methyl LD50 (48h) bees (oral and contact) is >100µg/bee for haloxyfop-P-methyl LC50 (14d) worms is 1,343mg/kg for haloxyfop-P-methyl

## 13. Disposal considerations

<b>Product Disposal</b>	Dispose of product only by using according to the label, or at an approved landfill. Do not burn.
<b>Container Disposal</b>	Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

## 14. Transport information

<b>Transport Information</b>	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
<b>U.N. Number</b>	3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (haloxyfop-P, 52%)
<b>Transport hazard class(es)</b>	9
<b>Hazchem Code</b>	3Z

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<b>Packaging Method</b>	-
<b>Packing Group</b>	III
<b>EPG Number</b>	-
<b>IERG Number</b>	47
<b>IMO Marine Pollutant</b>	Yes. Environmentally Hazardous Substance mark required.
<b>IMDG EMS</b>	F-A, S-F
<b>Other Information</b>	Do not carry this product on a passenger service vehicle.  Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details.

## 15. Regulatory information

<b>National and or International Regulatory Information</b>	Registered pursuant to the ACVM Act 1997, No. P8058 See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration conditions Approved pursuant to the HSNO Act 1996, Approval Code HSR100054 See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for approval controls.
<b>Hazard Rating Systems</b>	NFPA/HMIS: 1-2-1

## 16. Other Information

<b>Date of preparation or last revision of SDS</b>	Nov 2019
<b>Contact Person/Point</b>	IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE 24Hr Tollfree Emergency No: 0800 651 911 24Hr Emergency No: National Poisons Centre Phone: 0800 764 766
<b>Revisions Highlighted</b>	5 yearly review carried out. Various changes and updates made to document.
<b>Other Information</b>	Supersedes SDS issued Nov 2019.  ...End Of MSDS...

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