



Safety Data Sheet: HarvestCide® Granules

Post-Harvest Solutions Ltd Safety Data Sheet

Version: 7

Date Revised: 12/09/2023

1. Identification of the Material and Supplier

HarvestCide® Granules

Uses: Halogen based broad spectrum biocide.

Manufacturer/supplier

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New Zealand

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Emergency Information

National Poisons Centre (New Zealand): **0800 POISON (0800 764 766)**

2. Hazard Identification

Classified as hazardous according to the criteria of the Hazardous Substances (Hazard Classification) Notice 2020 and in accordance with Hazardous Substances and New Organisms Act 1996.

Signal Word: **DANGER**



HSNO Classifications: Oxidising Solid Category 2; Acute (Oral) Toxicity Category 4;
Skin Corrosion Category 1B; Serious Eye Damage 1; Hazardous to Aquatic Environment (Acute)
Category 1

Hazard Statements:

H272 May intensify fire; oxidizer.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.
 H400 Very toxic to aquatic life.

Prevention Statements:

P102 Keep out of reach of children.
 P103 Read label before use.
 P210 Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
 P220 Store away from clothing and incompatible or combustible materials.
 P280 Wear protective gloves, clothing, eye protection and face protections.
 P260 Do not breathe dust, fumes, gas, mist, vapours or spray.
 P264 Wash hands thoroughly after handling.
 P270 Do not eat, drink, or smoke when using this product.
 P273 Avoid release to the environment.

Response Statements:

P101 If medical advice is needed, have product container or label at hand.
 P370+P378 In case of fire: Use water spray, fog or mist, alcohol resistant foam for extinction. DO NOT use CO2 or dry chemical
 P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P310 Immediately call a POISON CENTER or physician.
 P321 Specific treatment is urgent.
 P363 Wash contaminated clothing before re-use.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P301+P312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
 P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with plenty of soap and water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P391 Collect spillage.

Storage Statements:

P405 Store locked up.

Disposal Statements:

P501 Dispose of in accordance with local regulations

3. Composition/information on Ingredients

Ingredient	CAS Number	Content (% w/w)
BCDMH (1-Bromo-3-chloro-5,5-dimethylhydantoin)	16079-88-2	96
Inert ingredients	N/A	4

4. First-Aid Measures

General advice:

Immediately take off contaminated clothing and wash before reuse.

Inhalation:

If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice and attention immediately from the **POISON CENTRE (0800 764 766)** or a physician.

Skin Contact:

Gently wash under shower with plenty of soap and water. If skin irritation occurs get medical advice and attention immediately from the **POISON CENTRE (0800 764 766)** or a physician.

Eye Contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice and attention immediately from the **POISON CENTRE (0800 764 766)** or physician.

Ingestion:

If swallowed, rinse mouth, do not induce vomiting. Get medical advice and attention immediately from the **POISON CENTRE (0800 764 766)** or a physician.

Note to physician:

May irritate mucous membranes. Dust may burn respiratory tissues and may burn digestive tract if swallowed. Prolonged skin contact may cause reddening and superficial necrosis. Will cause severe irritation of eyes, corneal burning on prolonged contact with the dust or concentrated suspension. May cause serious eye damage.

5. Fire-Fighting Measures

Suitable extinguishing media:

Water spray, fog or mist. Alcohol resistant foam. Do not use CO₂ or dry chemical

Specific Hazards:

Toxic smoke, gases, and vapours of bromine, chlorine, oxides of carbon and nitrogen.

Protective Equipment and precautions for fire fighters

Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases, or vapours.

Hazchem Code: 2YE

6. Accidental Release Measures

Emergency Procedures:

Clear area of all unprotected personnel. Use personal protective equipment (PPE) to avoid skin and eye contact and breathing in dust or mist. **For details on PPE, refer to section 8.** Contain spills by absorbance with inert material. Clean up spills immediately to prevent further accidents.

Environmental precautions

Prevent spilled material from entering drains. If contamination has occurred, advise local emergency services.

Methods for cleaning up or taking up

Sweep or shovel spilled material into suitable containers for reuse or disposal. Avoid generating dust. Wash area down with excess water. Recover the cleaning water for subsequent disposal.

7. Handling and Storage

Handling

Keep away from heat, sparks, open flames, or hot surfaces. No smoking. Observe good personal hygiene practices when handling this product. Do not eat, drink, or smoke while using this product. Remove contaminated clothing and wash thoroughly after handling. Avoid contact with eyes, skin and clothing by use of PPE if necessary (**refer to section 8**). Do not inhale dust or mist etc.

Storage

Store in a cool, dry, well-ventilated area out of direct sunlight. Keep away from heat, sparks, open flames, hot surfaces. No smoking. Keep the container closed when not in use. Store alone away from oil, fuel and other chemicals. Keep out of reach of children or animals.

8. Exposure Controls and Personal Protection

Workplace Exposure Standards

None established for this product.

Engineering Controls

Use in a well-ventilated area. If an inhalation risk exists, use mechanical exhaust ventilation. Maintain dust level below the recommended exposure standard for nuisance dust. When applying as a spray do not atomise as this will increase the risk of respiratory toxicity. Use PPE, as specified below:

PPE (Personal Protective Equipment)

The selection of PPE is dependent on a detailed risk assessment. This should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing. Manufacturer's directions for use should be observed because of great diversity of types.

Respiratory protection:

Where an inhalation risk exists, wear a suitable particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716

Hand protection:

Chemical resistant protective gloves. Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding >480 minutes of permeation time according to EN 374); e.g. nitrile rubber (0.4mm), chloroprene rubber (0.5mm), polyvinylchloride (0.7mm) and other.

Eye protection:

Dust-proof safety goggles with side shields and/or face-shield, as appropriate.

Body protection:

Hand protection with suitable chemically resistant long gloves (e.g. nitrile rubber 4mm). Chemical protection suit, overalls, apron with rubber boots must be chosen depending on activity and possible exposure.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Wearing of close work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work.

The effects from exposure to this product depend on several factors including frequency and duration of use, the amount used, control measures adopted, personal protective equipment used and method of use. It is impractical to prepare a data sheet that encompasses all possible situations; therefore, it is anticipated that users will assess the risks and apply control measures as appropriate.

9. Physical and Chemical Properties

Appearance:	White, free flowing granules with faint halogen odour.
Vapour Pressure:	9.35X10 ⁻³ Pa @25°C
Boiling Point:	Decomposition: 160°C
Freezing/melting point:	163-164°C
Solubility: Water	0.2g/100ml @25°C
Specific gravity:	1.8
pH	3.0 – 3.5 (1% solution @ 25°C)

Flashpoint:	N/A
Octanol/water partition coefficient:	0.35
Explosion properties:	Not explosive
Oxidation properties:	Strong oxidizing agent

10. Stability and Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Keep dry.
Incompatible Materials	Avoid mixing with any other chemical. Spontaneous combustion may result.
Hazardous Decomposition Products	Will decompose at 160°C, releasing poisonous fumes of hydrogen bromide, bromine and hydrogen chloride. Strong oxidizer. Forms explosive mixtures with combustible, organic or other easily oxidisable materials. Will smoulder in large fires, fuelled by other materials, with emission of dense black smoke.

11. Toxicological Information

Acute Oral toxicity:	LD ₅₀ >485mg/kg Rat
Skin Corrosion / Irritation:	Causes severe skin burns.
Eye Damage / Irritation:	Causes eye damage.
Sensitization:	Not classified
Chronic Toxicity:	Not classified
Carcinogenicity:	Not a known carcinogen
Mutagenicity:	Not mutagenic
Reproduction toxicity:	Not a reproductive toxin

12. Ecological Information

Very toxic to aquatic life

Do not contaminate bodies of water with product or empty container.

E.E.L. and T.E.L. Not established.

Fish: LC₅₀ = 0.4mg/litre (Rainbow trout)
 LC₅₀ = 0.46mg/litre (Bluegill sunfish)
 LC₅₀ = 1.2mg/litre, acute flow through (Eastern oyster)

Crustaceans: LC₅₀ = 0.75mg.litre,48hr (Daphnia magna)

Algae (scenedesmus subspicatus): Highly toxic to algae

Birds: Acute LD₅₀ = 1,839mg/kg (Bobwhite quail),
 Acute LD₅₀ > 5000 mg/kg (Mallard duck) dietary.

13. Disposal Considerations

Disposal Methods

Dispose of at an approved waste site. Refer to waste management authority.

Legislation

Dispose of in accordance with relevant local legislation. Contact a specialist waste company or local regulator for advice

14. Transport Information

Road and Rail Transport:


Classified as dangerous goods by the criteria of NZS 5433:2012: Transport of Dangerous Goods on Land

Sea Transport

IMDG: Classified as dangerous goods under transport regulations

Air Transport

IATA/ICAO: Classified as dangerous goods under transport regulations

	
Rail/Road (NZS 5433:2012)	UN Shipping Name: OXIDISING SOLID, CORROSIVE, N.O.S. (1-BROMO-3-CHLORO-5,5-DIMETHYLHYDANTOIN) MARINE POLLUTANT
Sea (IMDG)	
Air (IATA/ICAO)	
	UN Number: 3085 Class: 5.1 Packing group: III Hazchem Code: 2YE Marine Pollutant: Yes

15. Regulatory Information

HSNO Approval Number: HSR002632 – Oxidising Liquids and Solids (Corrosive) Group Standard 2020.

ACVM Registered Number P008400

All materials are present on the NZ Inventory of Chemicals

The Health and Safety at Work (Hazardous Substances) Regulations 2017 specifies health and safety requirements for using hazardous substances in the workplace and these are incorporated under the Health and Safety at Work Act 2015. The total amount of all substances with specified classifications may activate controls.

For this product – BCDMH

Certified Handler	Not Required
Substance must be secured when unattended	Triggered by 'Oxidising' classification – 500kg
Location Compliance Certificate	Triggered by 'Corrosive' classification – 250kg
Emergency management – fire extinguishers	Triggered by 'Oxidising' classification. If >200kg stored require 1 fire extinguishers but if >500kg stored require 2 fire extinguishers
Emergency management – signage	Triggered by 'Corrosive' classification – 250kg
Emergency management – Emergency Response Plan and Secondary Containment	Triggered by 'Ecotoxic' – 100kg

16. Other Information

SDS Version: 7 (Replaces Version 6: Updated to GHS requirements (with latest version of GHS calculations) and amended HSR code)

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Abbreviations

GHS - Globally Harmonized System of classification and labelling of chemicals

HSNO. Hazardous Substances New Organisms

IATA - International Air Transport Association

IMDG - International Maritime Dangerous Goods Code

LD50 LD stands for Lethal Dose. LD50 is the amount of a substance, given all at once, which causes the death of 50% (one half) of a group of test animals.

NZIoC – New Zealand Inventory of Chemicals.

OECD - Organisation for Economic Co-operation and Development

PPE – Personal Protective Equipment

TLV – Threshold Limit Values

TWA – Time-Weighted Average

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (COA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Post-Harvest Solutions Ltd.

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