



Safety Data Sheet: HarvestCide® Gel

Post-Harvest Solutions Ltd Safety Data Sheet Version: 4
Date /Revised: 26/09/2018
Product: **HarvestCide® Gel**

1. Identification of the Material and Supplier

HarvestCide® Gel

Uses: Water treatment additive.

Manufacturer/supplier

Post Harvest Solutions Limited
52 Rangitane Road
Whakatu 4172
Hawkes Bay
New Zealand

Phone: +64 6 877 7668

Email: info@postharvest.co.nz

Web: www.postharvest.co.nz

Emergency Information

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

[Company Name] Enquiry Number:

2. Hazard Identification

Classified as dangerous goods according to NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to the criteria of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 – HSR101052



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HNSO Classifications: 5.1.1B, 6.1D (O, I), 6.5B, 8.2B, 8.3A, 9.1A, 9.3C

Signal Word: DANGER

Hazard Statements:

- H272 May intensify fire; oxidizer.
- H302 Harmful if swallowed.
- H332 Harmful if inhaled.
- H317 May cause an allergic skin reaction.
- H314 Causes severe skin burns.
- H318 Causes serious eye damage.
- H410 Very toxic to aquatic life with long lasting effects.
- H433 Harmful to terrestrial vertebrates.

Prevention Statements:

- P102 Keep out of reach of children.
- P103 Read label before use.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P220 Keep/Store away from clothing, incompatible materials, or combustible materials.
- P221 Take any precaution to avoid mixing with combustibles/incompatible materials.
- P270 Do not eat, drink or smoke when using this product.
- P260 Do not breathe mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing shouldn't be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P273 Avoid release to the environment.

Response Statements:

- P101 If medical advice is needed, have product container or label at hand.
- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P330 Rinse mouth.
- P370+P378 In case of fire: Use water spray, fog or mist, alcohol resistant foam for extinction.
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with plenty of soap and water/shower.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before re-use.
P304+P340/P310 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
P321 Specific treatment is urgent.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P391 Collect spillage.

Storage Statements:

P405 Store locked up.

3. Composition/information on Ingredients

Chemical Nature:

Ingredient	CAS Number	Content (% w/w)
1-Bromo-3-chloro-5,5-dimethylhydantoin	16079-88-2	30-40
Water	7732-18-5	To 100

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 doctor.

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 doctor.

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 a doctor.



Ingestion:

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

Note to physician:

Short term exposure: This product is corrosive to the skin. Capable of causing moderate to severe burns with ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure. Burns may not be immediately painful; the onset of pain may be minutes to hours.

Significant oral exposure is considered to be unlikely. However, this product is very corrosive to the gastrointestinal tract. Capable of causing severe burns with deep ulceration, and can penetrate to deeper layers of skin resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure and will rapidly lead to death unless treated promptly.

5. Fire-Fighting Measures

Suitable extinguishing media:

Water fog or fine water spray

Specific Hazards:

This product is likely to decompose only after heating to dryness, followed by further strong heating. Decomposition products from this product may be toxic if inhaled.

Protective Equipment and precautions for fire fighters

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

Hazchem Code: 2X

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 vapours. **For details on PPE, refer to section 8.** Contaminated area may be neutralized by washing with dilute alkali, such as baking soda, washing soda, or limestone. Contain spills by absorbance with inert material, such as sand or vermiculite, for larger spills contain by use of dikes or dams. Clean up spills immediately to prevent further accidents.

Environmental precautions

Prevent spilled material from entering drains/surface waters/groundwater. 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/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 (**refer to section 8**). Do not inhale dust or mist etc.

Storage

Store locked up 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. Check periodically for corrosion and leaks. **Store away from incompatible materials as specified in Section 10.**

8. Exposure Controls and Personal Protection

Workplace Exposure Standards

None established for this product.

Engineering Controls

No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

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 mist 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.

9. Physical and Chemical Properties

Physical Description & colour:	White liquid (suspension)
Odour:	Mild halogen odour
Boiling Point:	Approx.. 100°C at 100kPa
Freezing/Melting Point:	Approx. -2°C
Volatiles:	Water component
Vapour Pressure:	2.37 kPa at 20°C
Vapour Density:	No data
Specific Gravity:	Approx. 1.2 at 25°C
Water Solubility:	Completely soluble
pH:	3.2-3.8 (1% in water)
Volatility:	No data
Odour Threshold:	No data
Evaporation Rate:	No data
Coeff Oil/water distribution:	No data
Autoignition temp:	N/A – does not burn

10. Stability and Reactivity

Reactivity	Reacts with strong acids; may release decomposition products such as hydrogen bromide, hydrogen chloride, bromine and chlorine gases.
Conditions to Avoid	Keep away from heat, flames and sparks. Keep away from sources of sparks or ignition.
Incompatible Materials	Strong acids, bases, oxidizing and reducing agents.
Hazardous Decomposition Products	See Reactivity above. This product is likely to decompose only after heating to dryness, followed by further strong heating. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Hydrogen chloride gas, other compounds of chlorine. Water, bromine compounds, phosgene.

11. Toxicological Information

Eye Contact:

Causes serious damage to eyes.

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Skin Contact:

Causes severe skin burns

Toxicity Data

LD₅₀ (Oral), Rat 2764mg/kg

LD₅₀ (Dermal), Rat >2000mg/kg

12. Ecological Information

Ecotoxicity

Very toxic to aquatic life with long lasting effects

LC₅₀, 96 hrs, fish; 0.87mg/L

EC₅₀, 48hrs, Daphnia 0.46mg/L

13. Disposal Considerations

Disposal Methods

Product should be neutralized with dilute base in a controlled manner before disposal. 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: CORROSIVE LIQUID, OXIDIZING, N.O.S. (BROMOCHLORO-5,5-DIMETHYLHYDANTOIN) UN Number: 3093 Class: 8 Subsidiary Risk: 5.1 Packing group: II Hazchem Code: 2X Marine Pollutant
Sea (IMDG)	
Air (IATA/ICAO)	

15. Regulatory Information

Classified as hazardous according to the criteria of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 – HSR101052

This product must be under the care of a Certified Handler at all times. A record must be kept of the use and disposal of this product.

Other Regulations:

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.



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16. Other Information

Additional Information

This safety data sheet was upgraded on 26/09/2018 (version 4) to correctly assign the HSNO Approval Number as an individual approval, rather than a group standard approval. It replaces version 3 (28/05/2015).

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.

Abbreviations

ACGIH – American Conference of Governmental Industrial Hygienists

ADG Code Australian Dangerous Goods

AICS – Australian Inventory of Chemical Substances

EN - European Standard

GHS - Globally Harmonized System of classification and labelling of chemicals

HSNO. Hazardous Substances New Organisms

IATA - International Air Transport Association

ICAO - International Civil Aviation Organization

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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