

HAPPY SOILS HEAL N' SHIELD LIQUID

Safety Data Sheet (SDS)

Revision: 2.0 | Issue / review date: 24 June 2026

1. Identification

Product name	Happy Soils Heal N' Shield Liquid
Other names	Heal N' Shield Liquid; H&S Liquid Bacteria 5
Recommended use	Soil conditioner / soil ameliorant; biological soil inoculant for agricultural and horticultural use
Uses advised against	Do not use other than as directed on the product label or technical instructions.
Product supplier	Happy Soils Pty Ltd
ABN	80 661 877 952
Address	5/25 Centre Way, Croydon South VIC 3136, Australia
Telephone	0431 060 155
Email	info@happysoils.com.au
Emergency contact	Poisons Information Centre: 13 11 26 (Australia, 24 hours). Emergency services: 000.

2. Hazard(s) identification

Based on available information, this product is not classified as hazardous according to GHS as implemented under Australian WHS regulations. Not classified as Dangerous Goods for road/rail, sea or air transport based on available information.

Signal word	None allocated
GHS pictogram	None allocated
Hazard statements	None allocated
Precautionary statements	Avoid eye contact, prolonged skin contact and breathing spray mist. Wash hands after handling. Keep away from fungicides, strong oxidising agents and materials that may reduce microbial viability. Prevent release to waterways.

3. Composition and information on ingredients

Ingredient / description	CAS number	Proportion
Proprietary Bacillus spp. natural soil bacteria formulation	Not assigned - biological mixture	Proprietary
Humic acid and water carrier	Not assigned / mixture	Major component
Plant-derived culture media residues: glucose, bran, corn starch; sterilised water	Not assigned / mixture	Proprietary / residual
Vegetable oil process aid	Not assigned / mixture	Approx. 0.5% in liquid process, where applicable
Other non-hazardous ingredients	Not assigned / mixture	To 100%

The microbial formulation is described as a proprietary bacterial mixture of non-pathogenic Bacillus spp. natural soil bacteria. Exact composition is proprietary.

4. First aid measures

- Inhalation: If spray mist is inhaled, remove person to fresh air. Seek medical advice if irritation or respiratory symptoms occur.
- Ingestion: Rinse mouth. Do not induce vomiting. Seek medical advice if symptoms occur or large quantities are swallowed.
- Skin contact: Remove contaminated clothing. Wash exposed skin with soap and water. Seek medical advice if irritation persists.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical advice if irritation persists.
- First aid facilities: Eyewash and normal washroom facilities should be available.
- Advice to doctor: Treat symptomatically. Consider individual susceptibility to biological materials or fermentation products.

5. Fire-fighting measures

Product is not expected to be flammable or explosive. Use extinguishing media suitable for the surrounding fire. Thermal decomposition may generate carbon oxides and irritating fumes. Fire-fighters should wear protective clothing and self-contained breathing apparatus where exposure to fumes is possible.

6. Accidental release measures

- Avoid eye and skin contact. Wear suitable PPE as a precaution.
- Contain spill using inert absorbent such as sand, soil, clay or diatomaceous earth.
- Collect into suitable labelled containers for disposal.
- Wash contaminated area with soap and water where runoff can be contained.
- Prevent entry into drains, sewers and public waterways.

7. Handling and storage

- Avoid eye contact, prolonged skin contact and breathing mist/spray.
- Use only as directed. Maintain good hygiene after handling.
- Keep containers tightly closed when not in use.
- Store in a cool, dry, well-ventilated place out of direct sunlight.
- Store away from combustible materials, herbicides, fungicides, strong acids, strong oxidising agents and materials incompatible with living biological products.
- Do not freeze unless supplier confirms compatibility.

8. Exposure controls and personal protection

No occupational exposure standards have been established for this mixture. Oral and inhalation exposure are not expected under normal use; avoid generation and inhalation of mist.

Engineering controls	Good general ventilation. Avoid aerosol generation. Local exhaust may be required during bulk transfer or spray mixing.
Respiratory protection	Normally not required. If mist exposure is possible and ventilation is inadequate, use suitable mist respirator selected in accordance with AS/NZS 1715 and AS/NZS 1716.
Eye/face protection	Safety glasses or protective goggles when handling concentrate or where splashing is possible.
Hand protection	Nitrile, neoprene, polyethylene or similar impervious gloves for repeated handling.
Body protection	Long sleeves and suitable workwear. Chemically impervious apron where bulk product is handled.

9. Physical and chemical properties

Appearance	Pinkish to light brown liquid
Odour	Characteristic fermentation aroma
pH	4.5-5.0
Relative density	0.95-1.05
Boiling point	Approx. 100 °C
Solubility	90%+ water soluble / water-based
Flash point	Not applicable / non-flammable
Explosive properties	Not explosive
Other data	No additional data available

10. Stability and reactivity

Reactivity	No dangerous reactions known under normal conditions of use.
Chemical stability	Stable under recommended handling and storage conditions.
Conditions to avoid	Excessive heat, direct sunlight, freezing where not validated, incompatible chemicals.
Incompatible materials	Strong oxidising agents, strong acids, interhalogens, metals; avoid fungicides/herbicides where microbial viability is required.
Hazardous decomposition products	Carbon oxides on thermal decomposition.
Hazardous reactions	None known under normal use.

11. Toxicological information

No product-specific toxicological testing was available for this draft. Information is based on available supplier information and product characteristics.

- Acute toxicity: Not expected to be acutely toxic under normal industrial use.
- Ingestion: No health effects expected under normal industrial use; ingestion of large quantities may cause gastrointestinal upset.
- Inhalation: Mist may cause respiratory irritation.
- Skin: May cause irritation, redness, itching or swelling in sensitive individuals.
- Eye: May cause irritation, redness or tearing.
- Respiratory sensitisation: Biological or fermentation products may irritate sensitive individuals; avoid inhaling mist.
- Mutagenicity, carcinogenicity, reproductive toxicity and aspiration hazard: Not expected to be classified based on available information.

12. Ecological information

Product-specific ecological data was not available for this draft. Do not discharge bulk product to public wastewater systems or surface waters without appropriate approval.

Ecotoxicity	No data available; not classified based on available information.
Persistence/degradability	No data available.
Mobility	No data available.
Bioaccumulative potential	No data available.

13. Disposal considerations

Dispose of in accordance with local, state and federal requirements. Avoid uncontrolled environmental release. Rinse empty containers and recycle or dispose of in accordance with local requirements.

14. Transport information

ADG road/rail	Not classified as Dangerous Goods based on available information.
IMDG sea	Not classified as Dangerous Goods based on available information.
IATA air	Not classified as Dangerous Goods based on available information.
UN number	None allocated
Proper shipping name	None allocated
Transport hazard class	None allocated
Packing group	None allocated
Marine pollutant	No

15. Regulatory information

GHS / WHS classification	Not classified as hazardous based on available information.
SUSMP poison schedule	Not scheduled based on available information.
AICIS / AICS status	Components are expected to be listed or exempt; biological product obligations should be confirmed for the current formulation and import pathway.

16. Other information

Date of issue / review	24 June 2026
Revision	Draft 2.0
Supersedes	Happy Soils Heal N' Shield Liquid MSDS/SDS dated 26 June 2021
Prepared for	Happy Soils Pty Ltd

This SDS has been prepared from product information available to Happy Soils Pty Ltd at the date of issue. It summarises health, safety and handling information for workplace use. Users must assess suitability for their own handling, storage, transport and application circumstances. This draft must be reviewed by a competent SDS author or suitably qualified person before public release, particularly where formulation, concentration, transport packaging or regulatory classification has changed.