

# Material Safety Data Sheet (MSDS)


## Bio Hesi Grow



Date of issue: 16-06-2022  
In accordance with Commission Regulation (EU) No 453/2010

<b>1. Identification of the substance/mixture and of the company/undertaking:</b>	
<b>1.1 Product identifier:</b> Product name:	Bio Hesi Grow
Catalogue number:	HE74 – HE77
<b>1.2 Identification of the product:</b>	Organic fertiliser product / Vinasse
<b>1.3 Identification of data sheet supplier:</b>	Hesi Plantenvoeding B.V. Klarenanstelerweg 11 6468 EP Kerkrade The Netherlands Tel. 0031 (0) 45 569 04 20 Fax 0031 - (0) 45 569 04 21 E-mail: <a href="mailto:info@hesi.nl">info@hesi.nl</a> Website: <a href="http://www.hesi.nl">www.hesi.nl</a>
<b>Contact:</b> Responsible for MSDS:	Mrs. Siglinde Winkler, e-mail: <a href="mailto:research@hesi.nl">research@hesi.nl</a>
<b>1.4 Emergency phone number:</b>	In case of life-threatening emergencies while using any of our products, immediately dial the local alarm number. Europe: 112 North America: 911 Australia: 000

<b>2. Hazard identification:</b>	
<b>2.1 Classification of the substance or mixture:</b>	Bio Hesi Grow does not meet criteria for classification according to Regulation (EC) No. 1272/2008 [CLP].
Other classifications:	No relevant other classifications.
Recommended use:	Wash hands after contact and before eating and drinking. Do not eat, drink or smoke while working with Bio Hesi Grow. Store in original container. Do not empty into groundwater.
Environmental risks:	In large amounts, Bio Hesi Grow can cause eutrophication.
Potential health effects:	Potential mild diarrhoea if taken internally in concentrated form. Content of nitrate can be harmful for babies (< 6 months) if swallowed (risk of cyanosis).
<b>2.2 Label elements according to Regulation (EC) No 1272/2008 [CLP]:</b>	Bio Hesi Grow does not meet criteria for hazard pictograms, signal words or hazard statements.
Precautionary statements:	P102: Keep out of reach of children. P233: Keep container tightly closed. P234: Keep only in original container. P235: Keep cool. P412: Store at temperatures not exceeding 50°C.
<b>3. Composition / information on ingredients:</b>	
<b>3.1 Substances:</b>	100% Vinasse: Pure vegetable raw materials resulting from food and feed production – Vinasse, grape marc.
<b>Other ingredients:</b>	None
<b>4. First aid measures:</b>	
After inhalation:	Not dangerous. Remove person to fresh air if necessary.
After skin contact:	Wash with soap and water. In the case of skin irritation: consult a doctor.
After eye contact:	Rinse eyes with plenty of water for at least 15 minutes.
After swallowing:	Drink water to dilute. Treat symptomatically in case of mild diarrhoea. If swallowed by a baby (< 6 months), contact a physician immediately. The nitrate content carries a risk of cyanosis for babies. If swallowed by pets, contact a veterinarian immediately and show this data sheet.

<b>5. Firefighting measures:</b>	
<b>5.1 Extinguishing media:</b> Suitable:	Water, dry extinguishing powder, carbon dioxide (CO <sub>2</sub> ) and foam.
Unsuitable:	No notable or special exemptions.
<b>5.2 Special hazards arising from the substance or mixture:</b>  Hazardous combustion products:	Fermentation may occur inside the container, resulting in the production of carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).  Hazardous fumes/smoke may be generated in the case of a fire.
<b>5.3 Advice for fire-fighters:</b> 	Special protective equipment for firefighting is necessary due to the packaging of Bio Hesi Grow (risk of burns and severe smoke). Use self-contained breathing equipment and protective clothing. When possible, prevent fire-fighting water from entering surface water or groundwater.
<b>5.4 Additional information:</b>	Bio Hesi Grow is not flammable and does not produce hazardous fumes. The original containers are made of PE-HD (polyethylene high density) and can melt and drip in case of fire, leading to risk of burns. PE-HD is flammable in case of prolonged heating, and can cause severe smoke.
<b>6. Accidental release measures:</b>	
<b>6.1 Personal precautions, protective equipment and emergency procedures:</b>	No applicable extra measures.
<b>6.2 Environmental precautions:</b>	Do not allow Bio Hesi Grow to enter sewerage or groundwater. Inform the water manager immediately in case of contamination of sewerage systems or surface water with large amounts of Bio Hesi Grow. This can cause eutrophication (overgrowth of oppressive vegetation in water bodies due to enrichment of minerals and nutrients).
<b>6.3 Methods and material for containment and cleaning up:</b>	Soak up with absorbent material and dispose in accordance with section 13. Clean the affected area after complete removal of Bio Hesi Grow.
<b>7. Handling and storage:</b>	
<b>7.1 Precautions for safe handling:</b>	Wash hands after contact and before eating and drinking. Do not eat, drink or smoke while working with Bio Hesi Grow. Do not empty into sewerage or groundwater.
<b>7.2 Conditions for safe storage:</b>	Store this product tightly closed in its original container, between 5°C and 30°C. Avoid freezing and sun light. Keep out of reach of children and pets. Do not store together with strong acids, alkaline compounds or oxidising substances. Fermentation may occur inside the container.
<b>7.3 Specific end uses:</b>	Organic NPK fertiliser for all plants cultivated on soil, hydro and coco substrates. Dosage: 50 ml Bio Hesi Grow in every 10 L of water.

<b>8. Exposure controls / personal protection:</b>	
<b>8.1 Control parameters:</b>	Bio Hesi Grow is not a hazardous substance and therefore has no established exposure limit values.
<b>8.2 Personal protection:</b>	Do not eat, drink or smoke while working with Bio Hesi Grow. Gloves and eye protection are recommended while handling Bio Hesi Grow. Wash hands after contact and before eating and drinking.
<b>9. Physical and chemical properties:</b>	
<b>9.1 Information on basic physical and chemical properties:</b>	
Physical state:	Liquid (viscous)
Appearance:	Brown liquid
Odour:	Earthy
pH:	4 - 5
Melting point / freezing point:	No data available
Boiling point:	No data available
Flash point:	Not flammable
Explosive limits:	Not explosive
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	1,2500 g/cm <sup>3</sup>
Solubility in water:	38,7 gr/L at 20°C
Viscosity:	300 – 600 mPa s at 20°C
<b>10. Stability and reactivity:</b>	
<b>10.1 Chemical stability:</b>	Bio Hesi Grow is organic stable under recommended conditions of storage, use and temperature. May ferment inside the container when contaminated with water.
<b>10.2 Possibility of hazardous reactions:</b>	Fermentation may occur inside the container, resulting in the production of carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ), along with possible traces of ethanol and volatile fatty acids (acetic acid, propionic acid, lactic acid and butyric acid).
<b>10.3 Conditions to avoid:</b>	Avoid heating, freezing and change of container (keep Bio Hesi Grow in its original packaging to avoid changing container).
<b>10.4 Incompatible materials:</b>	No incompatible materials.
<b>10.5 Hazardous decomposition products:</b>	Does not decompose when used for intended uses.
<b>11. Toxicological information:</b>	
<b>11.1 Information on toxicological effects:</b>	This substance does not meet the criteria for classification according to Regulation No. 1272/2008EC.
<b>Likely routes of exposure:</b>	
Inhalation:	Not dangerous.
Skin contact:	Not dangerous.
Eye contact:	Not dangerous.
Swallowing:	Potential mild diarrhoea if taken internally in concentrated form. Content of nitrate can be harmful for babies (< 6 months) if swallowed due to risk of cyanosis.

<b>12. Ecological information:</b>	
<b>12.1 Ecological effects:</b>	In large quantities, Bio Hesi Grow can cause eutrophication (over-saturation of minerals and nutrients) in bodies of water, which can lead to a severe reduction of water quality, enhanced growth of oppressive vegetation, a lack of oxygen in the water, fish mortality and a decrease in biodiversity. Bio Hesi Grow is not directly toxic to any aquatic organisms.
<b>12.2 Persistence and degradability:</b>	No data available on biodegradation.
<b>13. Disposal considerations:</b>	
<b>13.1 Product disposal:</b>	Bio Hesi Grow must be disposed of in compliance with the respective national regulations. Do not allow wastewater to be released into sewerage systems or surface water without the proper governmental permits.
<b>13.2 Package disposal:</b>	The packaging must be disposed of in compliance with the respective national regulations, or must be passed on to a packaging return system. The original containers are made of PE-HD (polyethylene high density).
<b>14. Transport information:</b>	
<b>14.1 Transport hazards and classifications:</b>	Bio Hesi Grow is not classified as hazardous. No special transport regulations or classifications are applicable. Any relevant local regulations concerning transport should be observed.
<b>15. Regulatory information:</b>	
<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:</b> EU regulations:	No authorisations or restrictions on use.
<b>16. Other information:</b>	
<b>16.1 Indication of changes:</b> First version Previous version:  Adjustments:	 16-06-2022 none  -