Hesi Plantenvoeding B.V.
Klarenanstelerweg 11, 6468 EP Kerkrade (NL)
Tel. 0031 - (0) 45 569 04 20
Fax 0031 - (0) 45 569 04 21
E-mail: info@hesi.nl
Website: www.hesi.nl

Material Safety Data Sheet (MSDS)
Hesi Boost

Date of issue:	20-06-2017
In accordance with:	Commission Regulation (EU) No 453/2010
Page:	1 of 6

1. Identification of the substance/mixture and of the company/undertaking.

Identification of the substance or preparation:

Article number:	HE93 - HE97
Trade name:	Hesi Boost
Identification of the product:	Liquid plant fertilizer for flowering plants and all cultivation methods. Only to be used as plant supplement. (Text on label: flowering accelerator).
Details of the manufacturer:	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: info@hesi.nl Website: www.hesi.nl
Representative of manufacturer:	Mr. Henk IJpelaar, e-mail: sales@hesi.nl
Responsible for the MSDS and further information:	Mrs. Siglinde Winkler, e-mail: research@hesi.nl
Emergency telephone No.:	Medical emergency number: Most of Europe, incl. UK: 112 In the United Kingdom it can also be 999. Australia: 000. National Poisons Information Service (UK) for the public: In England and Wales (NHS Direct) tel. 0845 4647. In Scotland (NHS 24) tel. 08454 242424 Poisons Service, only for healthcare professionals: For the UK: NPIS tel. 0844 892 0111 For Ireland: NPIC tel. (01) 809 2566

2. Hazards identification.

Hesi Boost is not subject to Directive 1999/45/EC and Directive 67/548/EEC, their amendments and their annexes.

Hazard pictogram:	None
Classification:	Not classified as hazardous.

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2. (Continued.)

Emergency overview:	Wash hands after contact and before eating and drinking. Do not eat, drink or smoke, while working with the substance. Store in original container. Do not empty into groundwater.
Environmental risks:	In large amounts substance can cause eutrophication. Contains PK (1-1).
Potential health effects:	Usually not a problem, but if necessary treat symptomatically. Drink water to dilute.

For more information about hazards, see section 4, 8 and 10-12.

3. Composition/information on ingredients.

No hazardous components in mixture.

Macronutrients:

P_2O_5 mineral acid soluble	1%
K_2O mineral acid soluble	1%
Concentrated fruit extracts.	3%

The above mentioned fruit extracts are from natural origin and may contain fruit enzymes (galactol), plant sugars (melitose, alginic acid), minerals (magnesium, calcium), and trace elements (iron). This potential content is however not purposefully added to the mixture as additional ingredients.

4. First aid measures.

Description of first aid measures:

After inhalation:	Usually not a problem. Remove to fresh air, if necessary.
After skin contact:	Wash of with soap and water. Remove contaminated clothing and shoes.
After eye contact:	Rinse eyes out with plenty of water for at least 15 minutes.
After swallowing:	Usually not a problem. Drink water to dilute. Treat symptomatically if necessary. If swallowed by pets, contact a veterinarian immediately and show this MSDS.

5. Fire-fighting measures.

Suitable extinguishing media:	Water, dry chemicals, carbon dioxide and foam.
Unsuitable extinguishing media:	None
Special hazards arising from product:	None
Advice for fire-fighters:	Special protective equipment for fire fighting is necessary due to packaging (risk of burns and severe smoke): use self-contained breathing apparatus and protective clothing. Prevent fire-fighting water from entering surface water or groundwater.

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5. (Continued)

Other information:	Hesi Boost is not flammable and doesn't produce hazardous fumes. The original containers are made of PE (polyethylene) and can melt and drip in case of fire (risk of burns). PE is flammable (due to flammable gas in case of heating) and can cause (severe) smoke.

6. Accidental release measures.

Personal precautions:	Usually not necessary.
Environmental precautions:	Do not allow to enter sewerage or groundwater. Inform the water manager immediately in case of contamination of sewerage systems or surface water with large amounts of the substance.
Procedures for cleaning / absorption:	Absorb with liquid-binding material and forward for disposal. Dispose contaminated material as waste according to section 13. Clean affected area after complete removal of substance.

For more information about precautions see sections 8 and 13 and see section 12 for more information about the environment.

7. Handling and storage.

Precautions for safe handling:	Wash hands after contact and before eating and drinking. Do not eat, drink or smoke while working with substance. Do not empty into sewerage systems or groundwater. Keep in original container.
Precautions for safe storage:	Do not recast, but store tightly closed in original container (PE = polyethylene), between 5ºC and 50ºC. Avoid freezing. Do not contaminate water, food or feed by storage or disposal. Keep out of reach of children and pets. Protect the packaging against direct sunlight.
Specific end use(s):	Liquid fertilizer for all flowering plants on all cultivation methods. Dosage: 2 ml/L when used as irrigation, or 1-2ml/L when used as foliar application. (1liter Hesi Boost is good for 500L of water. 4L covers 1hectare, 2-4m^3 water.) Can be combined with other Hesi fertilizers, for example Root Complex and PowerZyme (and other Hesi products).

8. Exposure controls / personal protection.

Control parameters:	
Trade name:	Hesi Boost
Exposure limit value:	No exposure limit values established, because it's not a hazardous substance.

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8. (Continued).

Personal protective equipment:	
Appropriate engineering controls:	Not required.
Individual protection and hygienic measures:	Do not eat, drink or smoke while working with the substance.
Respiratory protection:	Not required.
Eye protection:	Not required.
Protection of hands:	Gloves are not required, but are always advised while working with chemicals. Wash hands after contact and before eating and drinking.
Other protective equipment:	No special precautions necessary.
Industrial hygiene:	Wash hands after contact and before eating and drinking. Do not eat, drink or smoke while working with the substance. Do not empty into groundwater.

9. Physical and chemical properties.

Physical state / form:		Liquid
Colour:		Brown
Odour:		Fruity
pH range:		5,0 - 5,1
Melting point/freezing point:		> - 6°C
Boiling point:		> 105°C
Flash point:		Not flammable
Explosive limits	lower:	No data available
	upper:	No data available
Vapour pressure:		Below 1
Vapour density:		No data available
Relative density:		1,0200 g/cm³
Solubility in water:		100%
Viscosity:		No data available

10. Stability and reactivity.

Chemical stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of hazardous reactions:	None
Hazardous polymerisation:	Will not occur.
Conditions to avoid:	Sunlight, heating, freezing and recasting (keep in original container).
Incompatible materials:	None
Hazardous reactions with:	None
Hazardous decomposition products:	None

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11. Toxicological information.

Acute toxicity:	LD50 is not available / determined.

The following assessment of the health hazards is based on an assessment of the various components of the product.

After inhalation:	Not usually a problem.
After skin contact:	Not usually a problem.
After eye contact:	Not usually a problem.
After swallowing:	Not usually a problem.
Further data:	Hesi Boost is not classified as a hazardous substance. Prolonged use or hypersensitivity may cause an irritation or sensitization, as with each substance may be the case. The chances of this happening are very slim.

12. Ecological information.

Ecotoxic effects:	Do not allow material to be released to the environment without proper governmental permits. In large quantities the substance can cause eutrophication in surface water. This may cause a severe reduction in water quality, enhanced growth of choking aquatic vegetation, a lack of oxygen in the water and a decrease of biodiversity. May be hazardous for drinking supplies. Contains PK (1-1).
Aquatic toxicity:	No data available on direct toxicity to fish. Hesi Boost is not classified as a hazardous substance.
Persistence and degradability:	No data available on biodegradation.

13. Disposal considerations.

Product:	Substance 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.
Packaging:	The packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. The original containers are made of PE (polyethylene).

14. Transport information.

Hesi Boost is not classified as a hazardous substance.
Therefore no special transport regulations are applicable.
Any relevant local regulations concerning transport should be observed.

The transport regulations are cited according to international regulations and in the form applicable in the Netherlands. Possible national deviations in other countries are not considered.

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15. Regulatory information.

Labelling according to EC Directives:

Hazard pictogram:	None
Classification:	Not classified as hazardous.
R-phrases (risk statements):	None
S-phrases (safety statements):	S2 Keep out of reach of children.
	S20/21 When using do not eat, drink or smoke.

Labelling according to GHS (Globally Harmonised System of Classification and Labelling of Chemicals):

H-phrases (hazard statements):	None
P-phrases (precautionary statements):	P102 Keep out of reach of children.
	P270 Do not eat, drink or smoke when using this product.
	P273 Avoid release to the environment.

Hesi Boost is not classified as a hazardous substance.

16. Other information.

The complete text of the mentioned H and R-sentences in section 3:

None

History

Previous version:	MSDS Hesi Boost EN 01-12-2016
Adjustments:	Correction relative density in chapter 9

The information contained herein is based on the present state of knowledge and experience. The MSDS describes the product with regard to the safety precautions. These data are no guarantee of product properties. It is the obligation of the user to use this product with care and to observe the applicable laws and regulations. Hesi Plantenvoeding B.V. disclaims any responsibility for loss or damage arising from use of these data.

MSDS in accordance with Regulation (EC) No.1907/2006 of the European Parliament and of the Council of 18 December 2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Annex

At the time of preparation of this MSDS there have not yet been registered any safety reports for this mixture under Regulation (EC) No.1907/2006.

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