



## SAFETY DATA SHEET

Empathy AFTER PLANT Rose Food

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Empathy AFTER PLANT Rose Food (granular)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Plant feed.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

PlantWorks Ltd.  
Unit 930  
Cornforth Drive  
Kent Science Park  
Sittingbourne  
Kent  
ME9 8PX

1.4. Emergency telephone number

Emergency telephone +44 (0)1795 411527 (Mon-Fri 9am-5pm), +44 (0) 7562614920– Out of normal hours only.

## SECTION 2: Hazards identification

2.1. Classification of the substance or mixtureClassification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

Pictogram Not Required

Precautionary statements

P102 Keep out of reach of children.  
P264 Wash contaminated skin thoroughly after handling.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

P337+P313 If eye irritation persists: Get medical advice/ attention.

P501 Dispose of contents/ container in accordance with national regulations.

Supplementary precautionary statements P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Magnesium sulphate CAS number: 7487-88-9	EC number: 231-298-1	2-3%
Substance with National workplace exposure limits		
Classification Not Classified		
Potassium sulphate CAS number: 7778-80-5	EC number: N/A	10-15%
Substance with National workplace exposure limits.		
Classification Not Classified		
Rock phosphate CAS number: 1306-05-4	EC number: N/A	5-8%
Substance with National workplace exposure limits.		
Classification Not Classified		
Silicon dioxide CAS number: 7631-86-9	EC number: 231-545-4	2-5%
Substance with National workplace exposure limits.		
Classification Not Classified		
Aluminium Oxide CAS number: 1344-28-1	EC number: 215-691-6	>2.5 %
Substance with National workplace exposure limits.		
Classification Not Classified		
Urea (CO(NH <sub>2</sub> ) <sub>2</sub> ) CAS number 57-13-6	EC number: 200-315-5	5-8 %
Substance with National workplace exposure limits.		

Classification Not Classified		
Quartz (SiO <sub>2</sub> )	CAS number: 14808-60-7	EC number: 238-878-4 >2.5 %
Substance with National workplace exposure limits.		
Classification Not Classified		
Green waste	CAS number: N/A	EC number: N/A 20-30 %
Substance with National workplace exposure limits.		
Classification Not Classified		
Alfalfa	CAS number: N/A	EC number: N/A 20-25 %
Substance with National workplace exposure limits.		
Classification Not Classified		
Seaweed meal	CAS number: N/A	EC number: N/A 2-5 %
Substance with National workplace exposure limits.		
Classification Not Classified		
Hoof and horn	CAS number: N/A	EC number: N/A 5-10 %
Substance with National workplace exposure limits.		
Classification Not Classified		
Rock dust	CAS number: N/A	EC number: N/A 1-2 %
Substance with National workplace exposure limits.		
Classification Not Classified		
Humate	CAS number: 68514-28-3	EC number: N/A 0.5-1 %
Substance with National workplace exposure limits.		

Classification  
Not Classified

The full text for all hazard statements is displayed in Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

General information medical	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.
Ingestion	Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.
Skin contact	Rinse with water.
Eye contact	Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

##### 4.2. Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	No specific symptoms known.
Ingestion	No specific symptoms known.
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	Irritating to eyes.

##### 4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media None known.

##### 5.2. Special hazards arising from the substance or mixture

Specific hazards	None known.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

##### 5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers

exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment Self-contained breathing apparatus and full protective body clothing must be worn in case of fire.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2. Environmental precautions

Environmental precautions Avoid pollution of sewers and watercourses. May release ammonium ions that are toxic to fish.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain and sweep up spillages. Place unusable material in clearly labelled containers of plastic bags for disposal. Wet residues are slippery, wash floor remove all traces.

### 6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Usage precautions Keep out of reach of children. Read and follow manufacturer's recommendations. Keep away from food, drink and animal feeding stuffs. Wear protective clothing as described in Section 8 of this safety data sheet. Keep pack tightly sealed when not in use

Advice on general occupational hygiene Wash skin thoroughly after handling. Take off contaminated clothing. Wash contaminated clothing before reuse.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### **Silicon dioxide**

Long-term exposure limit (8-hour TWA): WEL 6 mg/m<sup>3</sup> inhalable dust  
Long-term exposure limit (8-hour TWA): WEL 2.4 mg/m<sup>3</sup> respirable dust

##### **Aluminium Oxide**

Long-term exposure limit (8-hour TWA): WEL 4 mg/m<sup>3</sup> respirable dust  
Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> inhalable dust

##### **Quartz (SiO<sub>2</sub>)**

Long-term exposure limit (8-hour TWA): WEL 6 mg/m<sup>3</sup> inhalable dust  
Long-term exposure limit (8-hour TWA): WEL 2.4 mg/m<sup>3</sup> respirable dust

##### **Urea (CO(NH<sub>2</sub>)<sub>2</sub>)**

Dusts not otherwise classified: 8hr TWA = 10 mg/m<sup>3</sup>

**Seaweed meal**

Not known

**Green waste**

Not known

**Humate**

Not known

**Alfalfa**

Not known

**Hoof and horn**

Not known

**Rock dust**

Not known

**Rock phosphate**

Not known

**Magnesium sulphate**

DNEL

Workers – dermal; Long-term systemic effect 21.3mg/kg/day, inhalation; Long term- systemic effect: 37.6mg/m<sup>3</sup>  
 General population – dermal; Long-term systemic effect: 12.8mg/kg/day, inhalation; Long-term systemic effect: 11.1mg/m<sup>3</sup>

PNEC

- fresh water; 0.68mg/l
- intermittent releases; 6.8 mg/l
- marine water; 0.068mg/l
- sewage treatment plant N/A 10mg/l

**Potassium sulphate**

DNEL

General population - Inhalation; Long term systemic effects: 11.1 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 12.8mg/kg/day  
 General population - Oral; Long term systemic effects: 12.8 mg/kg/day

PNEC

- Fresh water; 0.68 mg/l
- Marine water; 0.068 mg/l
- Intermittent release; 6.8 mg/l
- STP; 10 mg/l

Workers - Inhalation; Long term systemic effects: 37.6 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 21.3 mg/kg/day  
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8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection  
 Large Spillages:

Avoid contact with eyes.  
 Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

Hand protection  
 Hygiene measures

No specific hand protection recommended.  
 Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

Respiratory protection

No specific recommendations. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.

Environmental exposure controls

Keep container tightly sealed when not in use.

**SECTION 9: Physical and Chemical Properties**9.1. Information on basic physical and chemical properties

Appearance	Solid
Colour	Brown with white granules
Odour	Medium/Strong
Odour threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.8g/ml
Solubility(ies)	Not known.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

**SECTION 10: Stability and reactivity**10.1. Reactivity

Reactivity See the other subsections of this section for further details.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions  
No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

**SECTION 11: Toxicological information**11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD<sub>50</sub>) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD<sub>50</sub>) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Causes possible eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Causes possible skin irritation.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Not relevant. Solid.

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation No specific symptoms known.

Ingestion No specific symptoms known.

Skin contact Prolonged contact may cause dryness of the skin.

Eye contact Irritating to eyes.

Route of entry Ingestion Inhalation Skin and/or eye contact

Target organs No specific target organs known.

Potassium sulphateAcute toxicity - oral

Notes (oral LD<sub>50</sub>) LD<sub>50</sub> : >2000 mg/kg, Oral, Rat Read-across data.



Acute toxicity - dermal

Notes (dermal LD<sub>50</sub>) LD<sub>50</sub> : >2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) LC<sub>50</sub> : 3.6 mg/m<sup>3</sup>, Inhalation, Aerosol, Rat

Skin corrosion/irritation

Human skin model test Cell Viability (5%) 15 minutes Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Bacterial reverse mutation test: Negative.

Carcinogenicity

Carcinogenicity Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**SECTION 12: Ecological Information**

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility of frequent spills can have harmful or damaging effect on the environment.

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met.

Potassium sulphate

Acute toxicity – fish LC<sub>50</sub>, 96 hours: 680 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity – aquatic invertebrates LC<sub>50</sub>, 48 hours: 720 mg/l, Daphnia magna

Magnesium sulphate

Acute toxicity – crustacea LC50, 48 hours: 149.6 – 191.36 mg/l (Tubificid worm: Tubifex tubifex)

Acute toxicity – Fish LC50, 96 hours: 2610 -3080 mg/l (Fathead minnow: Pimephales promelas)

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

12.4. Mobility in soil

Mobility No data available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment  
vPvB.

This product does not contain any substances classified as PBT or

12.6. Other adverse effects

Other adverse effects                      None known.

SECTION 13: Disposal considerations
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13.1. Waste treatment methods

General information                      The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods                          Packaging: Reuse or recycle products wherever possible. Dispose of waste to licensed waste

SECTION 14: Transport information
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General                                        The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not required

14.4. Packing group

Not applicable.

14.5. Environmentally hazardous substance/marine pollutant

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information
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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations Health and Safety at Work etc.    Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.  
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

**SECTION 16: Other information**

Abbreviations and acronyms ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

IATA: International Air Transport Association.

ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate.

LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.

LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).

EC<sub>50</sub>: 50% of maximal Effective Concentration.

PBT: Persistent, Bioaccumulative and Toxic substance.

vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations Eye Irrit. = Eye irritation and acronyms

Training advice                      Read and follow manufacturer's recommendations.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.