

## CERTIFICATE OF ANALYSIS

Product Name: PLANTASERVE E  
Batch Number: 4408303  
Best Before End: SEPTEMBER 2023

Characteristic / Method	Unit	Analysis / Result	Standard
Appearance		Conforms	Colourless to pale yellow viscous liquid
Phenol content	%	Conforms	10.00 max
Ethylhexyl Glycerin content	%	10.06	9.00 - 11.00
Phenoxyethanol	%	89.94	89.00 – 91.00



## Allergen Statement

### Plantaserve E

This is to certify that the above mentioned product (INCI: Phenoxyethanol/Ethylhexylglycerin) does not contain any of the prohibited allergens listed in Annex III of the Directive 2003/15/EC (7<sup>th</sup> amendment of the EU Cosmetics Directive), in its subsequent amendments or in the cosmetics Regulation (EC) 1223/2009.

We, MADAR Corporation Ltd., hereby declare that the product Plantaserve E is of synthetic origin and free from Allergens including Nuts.

12/08/19

**MADAR Corporation expressly denies any responsibility for the suitability of the products for any specific or particular purposes intended by the user.** Suggestions for the use and application of the products and guide formulations are given for information purpose only and without commitment. Such suggestions do not release MADAR Corporation's customers from testing the products as to their suitability for the customer's intended processes and purposes. MADAR Corporation does not assume any liability or risk involved in the use of its products as the conditions of use are beyond its control. The user of the products is solely responsible for compliance with all laws & regulations applying to the use of the products, including intellectual property rights of third parties.



# SAFETY DATA SHEET

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH) & 1272/2008 (CLP)

10/09/12

## 1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>1.1 Product identifier</b>	
GHS Product Identifier	<b>PLANTASERVE E</b>
Chemical Name	2-Phenoxyethanol mixture with Ethylhexylglycerin
Other names	2-Phenoxyethanol mixture with 3-(2-ethylhexyloxy)propane-1,2-diol
CAS No.	122-99-6 and 70445-33-9
EINECS / ELINCS No.	204-589-7 and 408-080-2
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	
Identified use(s)	Preservative for cosmetics and personal care products
Uses advised against	None known.
<b>1.3 Details of the supplier of the safety data sheet</b>	
Company Identification	<b>MADAR Corporation Limited</b> 19-20 Sandheath Industrial Estate Fordingbridge Hampshire SP6 1PA
Telephone	01425 655555
<b>1.4 Emergency telephone number</b>	01425 655555

## 2. SECTION 2: HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>	
<b>2.1.1 Regulation (EC) No. 1272/2008 (CLP)</b>	Acute Tox. 4 (Ingestion) H302 Eye Irrit. 2 H319
<b>2.1.2 Directive 67/548/EEC &amp; Directive 1999/45/EC</b>	Xn Xi  R22: Harmful if swallowed. R36: Irritating to eyes.
<b>2.2 Label elements</b>	
<b>2.2.1 Label elements</b>	According to EC 1272/2008
GHS Product Identifier	PRESERVE POG



Hazard pictogram(s)

Signal word(s)

Warning

Hazard statement(s)

H302: Harmful if swallowed.  
H319: Causes serious eye damage.

Precautionary statement(s)

P102: Keep out of reach of children.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### 2.2.2 Label elements

According to Directive 67/548/EEC :



Pictogram

Xn

Risk Phrases

R22: Harmful if swallowed.  
R36: Irritating to eyes.

Safety Phrases

S2: Keep out of the reach of children.  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37/39: Wear suitable gloves and eye/face protection.

#### 2.3 Other hazards

Inhalation of the vapour may cause irritation of the nose and upper respiratory tract

#### 2.4 Additional Information

### 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

EC Classification No. 1272/2008

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	Hazard statement(s)	
2-Phenoxyethanol Index No. : 603-098-00-9	> 90%	122-99-6	204-589-7	Acute Tox. 4 Eye Irrit. 2	H302 H319
Ethylhexylglycerin Index No. 603-168-00-9	<10%	70445-33-9	408-080-2	Eye Dam. 1 Aquatic Chronic 3	H318 H412

EC Classification No. 67/548/EEC

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	Classification and Risk Phrases
2-Phenoxyethanol Index No. : 603-098-00-9	90%	122-99-6	204-589-7	Xn Xi R22: Harmful if swallowed. R36: Irritating to eyes.
Ethylhexylglycerin Index No. 603-168-00-9	10%	70445-33-9	408-080-2	Xi R41: Risk of serious damage to eyes. R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3.3 Additional Information

For full text of R/H/P phrases see section 16.

## 4. SECTION 4: FIRST AID MEASURES



### 4.1 Description of first aid measures

Inhalation

Remove persons affected to fresh air. Keep patient warm and at rest. Apply artificial respiration if necessary. If breathing is laboured, administer oxygen. Obtain medical attention if symptoms develop

Skin Contact

Remove contaminated clothing immediately and wash affected skin with soap and plenty of water. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops

Eye Contact

Obtain medical attention. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.

Ingestion

Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Do not induce vomiting. Obtain medical attention if symptoms develop

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

Irritation, coughing, headache, nausea, dizziness, vomiting,

### 4.3 Indication of the immediate medical attention and special treatment needed

Increased difficulty in breathing. headache, dizziness

## 5. SECTION 5: FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable Extinguishing Media

Extinguish with alcohol-resistant foam, carbon dioxide, dry chemical or water spray.

Unsuitable Extinguishing Media

Water jet

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

Produces harmful vapours. Evacuate area if there are audible sounds from venting drums

### 5.3 Advice for fire-fighters

Self-contained breathing apparatus to be worn if involved in fire. Water spray should be used to cool containers.




## 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

- |                                                                                |                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>6.1 Personal precautions, protective equipment and emergency procedures</b> | Put on protective clothing. Avoid contact with skin and eyes. Caution - spillages may be slippery.                                                                                                          |
| <b>6.2 Environmental precautions</b>                                           | Do not allow to enter drains, sewers or watercourses. If substance has entered a watercourse or sewer, IMMEDIATELY advise water authority.                                                                  |
| <b>6.3 Methods and material for containment and cleaning up</b>                | Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded plastic container for disposal or recovery. Disposal should be in accordance with local or national legislation. |
| <b>6.4 Reference to other sections</b>                                         | See Section: 8 (Exposure controls / PPE) & 13 (Disposal)                                                                                                                                                    |

## 7. SECTION 7: HANDLING AND STORAGE

- |                                                                         |                                                                                                                                   |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>7.1 Precautions for safe handling</b>                                | Ensure adequate ventilation. Avoid contact with skin, eyes and clothes. Avoid inhalation of vapours or mists. Do not ingest       |
| <b>7.2 Conditions for safe storage, including any incompatibilities</b> | Store in plastic or plastic-lined containers. Keep containers tightly closed when not in use. Prevent contact with air < 40 degC. |
| Storage Temperature                                                     | Two years                                                                                                                         |
| Storage Life                                                            | Strong oxidising agents. Strong bases. Aluminium, Copper, Zinc, Galvanized iron                                                   |
| Incompatible materials                                                  | Take precautionary measures against static discharges.                                                                            |
| Other information                                                       |                                                                                                                                   |

## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- |                                                                                     |                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>8.1 Control parameters</b>                                                       |                                                                                                                                                                                                                      |
| <b>8.1.1 Occupational Exposure Limits</b><br>LTEL (8 hr TWA mg/m <sup>3</sup> )     | <b>WEL: Workplace Exposure Limit (UK HSE EH40)</b><br>Not applicable.                                                                                                                                                |
| <b>8.2 Exposure controls</b>                                                        |                                                                                                                                                                                                                      |
| <b>8.2.1 Appropriate engineering controls</b>                                       | Provide adequate ventilation, including appropriate local extraction if dusts, fumes or vapours are likely to be evolved.                                                                                            |
| <b>8.2.2 Personal protection equipment</b>                                          |                                                                                                                                                                                                                      |
| Eye/face protection                                                                 | Safety spectacles/goggles. Minimum standard EN166.                                                                                                                                                                   |
|  |                                                                                                                                                                                                                      |
| Skin protection (Hand protection/ Other)                                            | Plastic or rubber gloves as appropriate for other materials and the process. Minimum standard EN374-3. Apron or other light protective clothing.                                                                     |
|  |                                                                                                                                                                                                                      |
| Respiratory protection                                                              | Wear suitable respiratory protective equipment if processing involves working in areas where aerosols, mists or dusts are likely to be evolved.: Full-/Half-/quarter-face masks ( EN 136/140/141) with Type A filter |
|  |                                                                                                                                                                                                                      |
| Other                                                                               | General hygiene measures for the handling of chemicals are applicable. Wash hands before breaks and after work. Wash contaminated clothing before reuse.                                                             |
| <b>8.2.3 Environmental Exposure Controls</b>                                        | Do not allow to enter drains, sewers or watercourses.                                                                                                                                                                |

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties (Solution)

Appearance	Clear Liquid
Colour	Colourless
Odour	Faint
Odour Threshold (ppm)	Not available.
pH (Value)	Not available.
Melting Point (°C) / Freezing Point (°C)	-5 degC
Boiling point/boiling range (°C):	> 245 degC
Flash Point (°C) [Open cup]	121 degC
Evaporation rate (Butyl acetate = 1)	Not available
Explosive limit ranges	Not applicable. Test not scientifically justified
Vapour Pressure	0.02 hPa at 25 degC
Vapour Density (Air=1)	4.8
Density (g/ml)	~ 1.1 at 20 degC
Solubility (Water)(20 degC)	Slightly soluble (~5%)
Solubility (Other)	Miscible with alcohols and glycols
Partition Coefficient (n-Octanol/water)	Log Pow :1.2
Auto Ignition Temperature (°C)	475 degC
Decomposition Temperature (°C)	> 200 degC
Viscosity (mPa.s)	~ 28 mPa.s at 20 degC
Explosive properties	Not explosive.
Oxidising properties	Not oxidising

### 9.2 Other information

## 10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Alcohol reactions
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	May form peroxides in contact with air or oxygen
10.4 Conditions to avoid	Temperatures > 40 degC
10.5 Incompatible materials	Strong oxidising agents. Strong bases, Aluminium, Copper, Zinc
10.6 Hazardous Decomposition Product(s)	Peroxides

## 11. SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### 11.1.1 Substances

##### Acute toxicity

Ingestion	LD50 : 1 850 mg/k (rat)( 2-Phenoxyethanol)
Inhalation (4 hrs)	LC50 :> 1 000 mg/l (rat)( 2-Phenoxyethanol)
Skin Contact	LD50 : 2 250 mg/k (rabbit)( 2-Phenoxyethanol)

##### Skin corrosion/irritation

Non-irritant.

##### Serious eye damage/irritation

Irritant

##### Respiratory or skin sensitization

Not sensitising

##### Mutagenicity

There is no evidence of mutagenic potential.

##### Carcinogenicity

IARC, NTP, OSHA, do not list this product or any components as a known or suspected carcinogen.

##### Reproductive toxicity

No evidence of reproductive toxicity.

##### STOT-single exposure

**Inhalation** : Irritation of the respiratory tract. Coughing.

**Ingestion** : May cause irritation of the gastrointestinal tract.

Headache, dizziness, nausea, vomiting,

##### STOT-repeated exposure (91 days)

NOAEL (Oral)(rat) 700 mg/k/day ( 2-Phenoxyethanol)

11.2 **Other information** Local anaesthetic effect on the lips, tongue and mucous membranes

## 12. SECTION 12: ECOLOGICAL INFORMATION

12.1 **Toxicity**  
(Fish) (96hrs) LC50 : 220 - 460 mg/l (Golden Orfe)( 2-Phenoxyethanol)  
(Daphnia magna) (48hrs) EC50 > 500 mg/l ( 2-Phenoxyethanol)  
(Algae) (72hrs) EC50 : 443 - 625 mg/l (Desmodesmus sub. )  
( 2-Phenoxyethanol)

12.2 **Persistence and degradability** Readily biodegradable at low concentrations.

12.3 **Bioaccumulative potential (96 hrs)** The product has no potential for bioaccumulation.

12.4 **Mobility in soil** This product is predicted to have very high mobility in soil.

12.5 **Results of PBT and vPvB assessment** Not classified as PBT or vPvB.

12.6 **Other adverse effects**

## 13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods** This material and must be disposed of as hazardous waste, usually by incineration.  
Consult an accredited waste disposal contractor or the local authority for advice.

13.2 **Additional Information**

## 14. SECTION 14: TRANSPORT INFORMATION

14.1 **Land transport (ADR/RID)**  
UN number Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'.

14.2 **Sea transport (IMDG)**  
UN number Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'.

14.3 **Air transport (ICAO/IATA)**  
UN number Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'.

## 15. SECTION 15: REGULATORY INFORMATION

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**

15.1.1 **EU regulations**  
Authorisations and/or restrictions on use Cosmetics Directive 76/768/EEC

15.1.2 **National regulations** Cosmetic Products (Safety) Regulations 2008

15.2 **Chemical Safety Assessment** No Chemical Safety Assessment (CSA) has been carried out

## 16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Sections #1 - #16.

### Abbreviations

IARC International Agency for Research on Cancer  
LTEL Long Term Exposure Limit  
NOAEL No Observed Adverse Effect Level  
NTP National Toxicology Program  
OSHA Occupational Safety and Health Association  
STEL Short Term Exposure Limit



STOT Specific target organ (systemic) toxicity  
TWA Time-weighted average

#### References:

European Chemicals Agency  
European Regulations and Directives  
Organisation for Economic Cooperation and Development – Screening Information Dataset  
Published chemical directories  
Suppliers' safety and data sheets  
UK Health and Safety Executive

#### Risk Phrases

R22: Harmful if swallowed.  
R36: Irritating to eyes.  
R41: Risk of serious damage to eyes.  
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Safety Phrases

S2: Keep out of the reach of children.  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37/39: Wear suitable gloves and eye/face protection.

#### Hazard statement(s)

H302: Harmful if swallowed.  
H318: Causes serious eye damage.  
H319: Causes serious eye irritation.  
H412: Harmful to aquatic life with long lasting effects.

#### Precautionary statement(s)

P102: Keep out of reach of children.  
P243: Take precautionary measures against static discharge.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313: If exposed or concerned: Get medical advice/attention.  
P330: Rinse mouth.  
P337 + P313: If eye irritation persists: Get medical advice/attention.  
P362: Take off contaminated clothing and wash before reuse.  
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.  
P501: Dispose of contents/container to: licensed waste contractor

#### Additional Information

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. **MADAR Corporation Limited** gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. **MADAR Corporation Limited** accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.



## Product Data Sheet

### Plantaserve E

<b>Chemical Description</b>	Blends of Phenoxyethanol and Ethylhexyl Glycerin.
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Parameter	Unit	Specification
<b>Appearance</b>		Colourless to pale yellow viscous liquid
<b>Phenol content</b>	%	10.00 max.
<b>Ethylhexyl Glycerin content</b>	%	9.00 – 11.00
<b>Phenoxyethanol</b>	%	89.00 – 91.00

Conforms to Pharmacopeia tests

#### Additional Comment

Plantaserve E is a blend of Phenoxyethanol and Ethylhexyl Glycerin is one of the most effective broad spectrum preservatives effective against bacteria, yeasts and mould fungi. Particularly useful for hair conditioners, sunscreens, shower gels, shampoos and bath gels. It has limited solubility with water but soluble in other polar solvents i.e. acetone, Glycol, propanol etc.

Dosage recommendation: 0.50 – 1.00 % Weight/Weight basis.

pH Stability: 3.00 – 12.00

Temperature Stability: Stable up to 80 °C

#### Storage & Transportation Comments

When stored properly at room temperature **Plantaserve E** remains stable for at least 1 year.

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