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Last changed: 13-11-2017

Internal no: D000064R09

replaces: D000064R08

GreenLube EP-0

Section 1: Identification of substance/preparation and of the company

1.1 Product identifier

Product name GreenLube EP-0

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

Recommended use Lubricating grease only for industrial use

1.3 Details of the supplier of the safety data sheet

Manufacturer

| | |
|-------------|--|
| Enterprise | Groeneveld Transport Efficiency B.V. |
| Address | Stephensonweg 12 |
| Postal code | 4207 HB Gorinchem |
| Country | the Netherlands |
| Telephone | +31 (0)183 641400 |
| Internet | www.groeneveld-group.com |
| Contact | Henk Bons (h.bons@groeneveld-group.com) Test Engineer |

1.4 Emergency telephone number

| | | | |
|-----------------|---|--|--|
| Emergency phone | §45 - (EC)1272/2008 | | |
| Europe | 112 | | |
| Netherlands | National Poisons Information Centre: +31 30 274 88 88 | Intended solely to inform professionals in acute poisoning | |

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Classification according to Directive 67/548/EEC or 1999/45/EC R phrases

R phrases This mixture is classified as not hazardous according to regulation 1999/45/EC

2.2 Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

| | |
|--------------------|------|
| Symbols/Pictograms | None |
| Signal word | None |

EU Specific Hazard Statements

EUH210 Safety data sheet available on request

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2.3 Other hazards

No information available

Section 3: Composition / information on ingredients

3.2 Mixtures

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

| Chemical name | EC NO | CAS No. | Weight-% | Classification according to 67/548/EEC or 1999/45/EEC | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|------------------|-----------|------------|----------|---|---|---------------------------|
| Zinc naphthenate | 234-409-2 | 12001-85-3 | <1.3 | N; R51/53 | Aquatic Chronic 2 (H411) | No data available |

INGREDIENT COMMENTS

This product is lithium grease based on mineral oil with additives. The mineral oils in the product contain <3% DMSO-extract (IP 346).

Full text of R-,H-and EUH-phrases: See section 16

Section 4: First aid measures

4.1 Description of first aid measures

| | |
|--------------|---|
| Inhalation | Move to fresh air in case of accidental inhalation of vapors |
| Skin contact | Wash with soap and water |
| Eye contact | Rinse thoroughly with plenty of water, also under the eyelids |
| Ingestion | <ul style="list-style-type: none"> • IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. • Do NOT induce vomiting. |

4.2 Most important symptoms and effects, both acute and delayed

| | |
|----------|------------|
| Symptoms | None Known |
|----------|------------|

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

| | |
|--------------------|-----------------------|
| Note to physicians | Treat symptomatically |
|--------------------|-----------------------|

Section 5: Fire-fighting measures

5.1 Extinguishing media

| | |
|--------------------------------|---|
| Suitable extinguishing media | CO ₂ , dry chemical or foam |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire |

5.2 Special hazards arising from the substance or mixture.

| |
|--|
| Not flammable. Fire may produce irritating and/or toxic gases. |
|--|

5.3 Advice for firefighters

| |
|--|
| In the event of fire and/or explosion do not breathe fumes |
|--|



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Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures.

| | |
|----------------------|---------------------------------|
| Personal precautions | Extremely slippery when spilled |
|----------------------|---------------------------------|

| | |
|--------------------------|--|
| For emergency responders | Use personal protection recommended in Section 8 |
|--------------------------|--|

6.2 Environmental precautions

| |
|--|
| Prevent further leakage or spillage if safe to do so |
|--|

6.3 Methods and material for containment and cleaning up

| | |
|-------------------------|--|
| Methods for cleaning up | <ul style="list-style-type: none">Take up with sand or non-combustible absorbent materialPlace into containers for later disposal |
|-------------------------|--|

6.4 Reference to other sections

| | |
|-------------------|--|
| Other information | See Section 12: ECOLOGICAL INFORMATION |
|-------------------|--|

Section 7: Handling and storage

7.1 Precautions for safe handling

| | |
|-------------------------|---------------------------------|
| Advice on safe handling | Extremely slippery when spilled |
|-------------------------|---------------------------------|

| | |
|--------------------------------|--|
| General hygiene considerations | <ul style="list-style-type: none">Handle in accordance with good industrial hygiene and safety practice.Avoid prolonged or repeated contact with skin |
|--------------------------------|--|

7.2 Conditions for safe storage, including any incompatibilities

| | |
|--------------------|---|
| Storage conditions | <ul style="list-style-type: none">Keep containers tightly closed in a cool, well-ventilated placeKeep at a temperature not exceeding 45°CKeep away from heat, sparks and open flame |
|--------------------|---|

7.3 Specific end use(s)

| | |
|-------------------------|---|
| Risk management methods | The information required is contained in this Safety Data Sheet |
|-------------------------|---|

Section 8: Exposure Control/personal protection

8.1 Control parameters

| | |
|--------------------------------|--------------------------|
| Derived No Effect Level (DNEL) | No information available |
|--------------------------------|--------------------------|

| | |
|--|--------------------------|
| Predicted No Effect Concentration (PNEC) | No information available |
|--|--------------------------|

8.2 Exposure controls

| | |
|----------------------|------------------------------|
| Engineering controls | None under normal processing |
|----------------------|------------------------------|

Personal protective equipment

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| | |
|------------------------|---|
| Hand protection | Wear protective nitrile gloves, ensure that the breakthrough time of the glove material is not exceeded. <ul style="list-style-type: none"> • Thickness ≥ 0.38 mm - breakthrough time >480 minutes • Thickness 0.1 mm - splash protection. Refer to glove supplier for information on breakthrough time for specific gloves. Conform EN 374-2 and EN 3474-3. |
| Eye/face Protection | Avoid contact with eyes. |
| Body protection | Suitable protective clothing. |
| Respiratory protection | <ul style="list-style-type: none"> • None under normal processing. • In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. |

| | |
|--------------------------------|---|
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice |
|--------------------------------|---|

| | |
|---------------------------------|---------------------------------------|
| Environmental exposure controls | Prevent product from entering drains. |
|---------------------------------|---------------------------------------|

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | Semi-solid |
| Appearance | Smooth |
| Color | Green |
| Odor threshold | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| pH | No information available |
| Melting point/freezing point | No information available |
| Boiling point/boiling range | Not applicable |
| Flash point | Based on base oils > 150 °C / > 302 °F |
| Evaporation rate | Not applicable |
| Flammability (solid, gas) | No information available |
| Flammability limits in air | No information available |
| Vapor pressure | Not applicable |
| Vapor Density | Not applicable |
| Specific gravity | No information available |
| Solubility(ies) | No information available |
| Partition coefficient (n-octanol/water) | No information available |
| Auto ignition temperature | No information available |
| Decomposition temperature | No information available |
| Kinematic viscosity | No information available |
| Dynamic viscosity | No information available |

9.2 Other information

| | |
|---------|--|
| Density | < 1000 kg/m ³ @ 25 °C / 77 °F |
|---------|--|



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Section 10: Stability and reactivity

| | | |
|------|------------------------------------|--------------------------------|
| 10.1 | Reactivity | Stable |
| 10.2 | Chemical stability | Stable under normal conditions |
| 10.3 | Possibility of hazardous reactions | None under normal processing |
| 10.4 | Conditions to avoid | Heat |
| 10.5 | Incompatible materials | Strong oxidizing agents |
| 10.6 | Hazardous decomposition products | None under normal processing |

Section 11: Toxicological information

11.1 Information on toxicological effects

| | |
|-----------------------------------|---------------------------------------|
| Acute toxicity | Not hazardous based on component data |
| Skin corrosion/irritation | Not hazardous based on component data |
| Serious eye damage/eye irritation | Not hazardous based on component data |
| Sensitization | Not hazardous based on component data |
| Germ cell mutagenicity | Not hazardous based on component data |
| Carcinogenicity | Not hazardous based on component data |
| Reproductive toxicity | Not hazardous based on component data |
| STOT-single exposure | Not hazardous based on component data |
| STOT-repeated exposure | Not hazardous based on component data |
| Aspiration hazard | Not hazardous based on component data |

The following values are calculated based on chapter 3.1 of the GHS document.

| | |
|-------------|------------|
| Oral LD50 | 5276 mg/kg |
| Dermal LD50 | 3280 mg/kg |

| Chemical name | Oral LD50 | Dermal LD50 | LC50 (Lethal concentration) |
|------------------|-------------------|-------------|-----------------------------|
| Zinc naphthenate | =4920 mg/kg (Rat) | | |

Product information

Product does not present an acute toxicity hazard based on known or supplied information.

| | |
|--------------|--|
| Inhalation | Inhalation of oil mist may cause irritation, headaches, nausea and breathing difficulties. |
| Eye contact | May cause irritation. |
| Skin contact | Prolonged contact may cause redness and irritation |
| Ingestion | Malaise (vague feeling of discomfort). |

Section 12: Ecological information

12.1 Toxicity

| | |
|-------------|--|
| Ecotoxicity | Not regarded as dangerous for the environment. Occasional major emissions or frequently recurring minor emissions may have a harmful or disturbing effect. |
|-------------|--|

| Chemical name | Algae/aquatic plants | Fish | Toxicity to daphnia and other aquatic invertebrates |
|------------------|----------------------|--|---|
| Zinc naphthenate | | 1.53 - 2: 96 h <i>Lepomis macrochirus</i> ppm LC50 | 4.6: 48 h <i>Daphnia magna</i> ppm EC50 |

12.2 Persistence and degradability

| |
|----------------------------|
| Not readily biodegradable. |
|----------------------------|



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12.3 Bioaccumulative potential

Material does not bioaccumulate.

12.4 Mobility in soil

After release, adsorbs onto soil.

Mobility

Insoluble in water.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available

Section 13: Disposal considerations

13.1 Waste treatment methods

| | |
|--|---|
| Waste from residues/unused products | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging | Dispose of in accordance with federal, state and local regulations. |
| Waste codes/ waste designations according to EWC/AVV | 13 08 99 |

Section 14: Transport information

Not regulated according to ADR/RID, IMDG, IATA.

| | | |
|------|---|--------------------------|
| 14.1 | UN Number | Not regulated |
| 14.2 | UN proper shipping name | Not regulated |
| 14.3 | Transport hazard class(es) | Not regulated |
| 14.4 | Packing Group | Not regulated |
| 14.5 | Environmental hazards | Not applicable |
| 14.6 | Special precautions for user | None |
| 14.7 | Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | No information available |

Section 15: Regulatory information

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

Water hazard class (WGK) | Slightly hazardous to water (WGK 1)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

International Inventories

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| | |
|---------------|---|
| TSCA | - |
| EINECS/ELINCS | - |
| DSL/NDSL | - |
| PICCS | - |
| ENCS | - |
| IECSC | - |
| AICS | - |
| KECL | - |
| NZIoC | - |

Legend

| | |
|---------------|---|
| TSCA | United States Toxic Substances Control Act Section 8(b) Inventory |
| EINECS/ELINCS | European Inventory of Existing Chemical Substances |
| DSL/NDSL | Canadian Domestic Substances List/Non-Domestic Substances List |
| PICCS | Philippines Inventory of Chemicals and Chemical Substances |
| ENCS | Japan Existing and New Chemical Substances |
| IECSC | China Inventory of Existing Chemical Substances |
| AICS | Australian inventory of Chemical Substances |
| KECL | Korean Existing and Evaluated Chemical Substances |
| NZIoC | New Zealand Inventory of Chemicals |

15.2 Chemical safety assessment

No information available

Section 16: Other information

Full text of R-phrases referred to under sections 2 and 3

| | |
|--------|---|
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
|--------|---|

Full text of H-Statements referred to under sections 2 and 3

| | |
|------|--|
| H411 | Toxic to aquatic life with long lasting effects. |
|------|--|

Key or legend to abbreviations and acronyms used in the safety data sheet

| | |
|-------|--|
| EC | Europese commissie |
| CLP | Classification, Labelling and Packaging [Regulation (EC) No. 1272/2008] |
| GHS | Globally Harmonised System of Classification and Labelling of Chemicals |
| EEG | Europese Economische Gemeenschap |
| EUH | EUH statement = CLP-specific Hazard statement |
| CAS | Chemical Abstracts Service |
| REACH | Registration, Evaluation and Authorization of Chemicals |
| LD50 | Median Lethal Dose for 50% of subjects |
| WGK | Wassergefährdungsklasse |
| ADR | Accord européen relatif au transport international de marchandises Dangereuses par Route |
| RID | Règlement concernant le transport international ferroviaire des marchandises dangereuses |
| IMDG | International Maritime Dangerous Goods Code |
| IATA | International Air Transport Association |



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REVISION HISTORY

| Revision | Rev. date | Responsible | Changes |
|----------|------------|------------------|--|
| 1 | 22-10-2003 | Peter Biesheuvel | Section 1, 2, 3, 4, 8, 10, 15 |
| 2 | 14-01-2009 | Anne Jan Visser | Section 1, 2, 3, 4, 7, 8,10, 11, 15, 16 |
| 3 | 03-07-2009 | Anne Jan Visser | Section 1 and 2 |
| 4 | 01-04-2011 | Anne Jan Visser | Section 2, 3, 6 – 9, 12 – 16 |
| 5 | 18-04-2012 | Guusje Fonville | Section 1, 4, 5 |
| 6 | 14-03-2014 | Michael Amannou | Document formatting according to EC-regulation 1907/2006 (REACH) |
| 7 | 05-11-2014 | Henk Bons | Introduced new document number. |
| 8 | 16-06-2015 | Gert van Doorn | Section 1, 3, 9, 11, 15, 16 and logo |
| 9 | 01-05-2017 | Melanie Maartens | SDS sections updated, 1, 11, 15, 16. |

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

End of Safety data sheet.