



SAFETY DATA SHEET

Last changed: 22-11-2017

Internal no: D000130 rev8

replaces: D000130 rev7

GreenLube ZW-0

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

1.1 Product identifier

Product name GreenLube ZW-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 telephone +46 (0) 303 332500 during working hours

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]

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

The components in this formulation do not meet the criteria for classification as PBT or vPvB



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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 Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Phosphorodithioc acid, mixed O,O-bis(2-ethylhexyl and iso-butyl and iso-propyl) esters, zinc salts	288-917-4	85940-28-9	<1.2	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) 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 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
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4.3 Indication of any immediate medical attention and special treatment needed.

Note to physicians	Treat symptomatically
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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.
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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
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For emergency responders	Use personal protection recommended in Section 8
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6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so
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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
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6.4 Reference to other sections

Other information	See Section 12: ECOLOGICAL INFORMATION
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Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	Extremely slippery when spilled
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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
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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
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7.3 Specific end use(s)

Risk management methods	The information required is contained in this Safety Data Sheet
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Section 8: Exposure Control/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL)	No information available
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Predicted No Effect Concentration (PNEC)	No information available
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8.2 Exposure controls

Engineering controls	None under normal processing
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Personal protective equipment

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Hand protection	<p>Wear protective nitrile gloves, ensure that the breakthrough time of the glove material is not exceeded.</p> <ul style="list-style-type: none"> • Thickness ≥ 0.38 mm - breakthrough time >480 minutes • Thickness 0.1 mm - splash protection. <p>Refer to glove supplier for information on breakthrough time for specific gloves. Conform EN 374-2 and EN 347-3</p>
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
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Environmental exposure controls	Prevent product from entering drains.
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Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Semi-solid
Appearance	Smooth
Color	Brown
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	5242mg/kg
Dermal LD50	2441 mg/kg
Vapor	136,4 mg/l

Chemical name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
Phosphorodithioc acid, mixed O,O-bis(2-ethylhexyl and iso-butyl and iso-propyl) esters, zinc salts	= 3000 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	Not expected to cause eye 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.
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Chemical name	Algae/aquatic plants	Fish	Toxicity to daphnia and other
Phosphorodithioc acid, mixed O,O-bis(2-		2.2: 96 h Cyprinodon	

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ethylhexyl and iso-butyl and iso-propyl) esters, zinc salts	variegatus mg/L LC50
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12.2 Persistence and degradability

Not readily biodegradable.

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)
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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

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

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 H-Statements referred to under section 3

H315	Causes skin irritation
H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects.

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

ADR	Accord européen relatif au transport international de marchandises Dangereuses par Route
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008]
EC	European Commission
EEC	European Economic Community
EUH	EUH statement = CLP-specific Hazard statement
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
LD50	Median Lethal Dose for 50% of subjects
REACH	Registration, Evaluation and Authorization of CHemicals



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RID	Règlement concernant le transport international ferroviaire des marchandises dangereuses
WGK	Wassergefährdungsklasse

REVISION HISTORY

Revision	Rev. date	Responsible	Changes
1	28-05-2003	Peter Biesheuvel	Section 1, 2, 3, 6 and 15
2	20-01-2009	Anne Jan Visser	Section 1 – 4, 7 – 16
3	06-07-2009	Anne Jan Visser	Section 1 and 2
4	04-04-2011	Anne Jan Visser	Section 2, 3, 6 – 9, 12, 14 – 16
5	25-04-2012	Guusje Fonville	Section 1, 2, 5
6	01-04-2014	Michael Amannou	All sections incl. logo
7	17-06-2015	Gert van Doorn	Section 1-3, 9, 11, 15, 16 and logo
8	22-11-2017	Melanie Maartens	SDS sections updated, 1, 2, 3, 8, 11, 12, 15, 16.

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

End of Safety data sheet.