

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

Print date: 11.12.2017

Product code: 150146PEN

Page 1 of 8

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

#### 1.1. Product identifier

PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

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

##### Use of the substance/mixture

Transmission oil

##### Uses advised against

No uses known.

#### 1.3. Details of the supplier of the safety data sheet

Company name: AVISTA OIL Deutschland GmbH  
 Street: Bahnhofstraße 82  
 Place: D-31311 Uetze  
 Telephone: +49 5177 / 85 - 0  
 e-mail: info@avista-oil.de  
 Internet: www.avista-oil.de  
 Responsible Department: Produktmanagement (msds@avista-oil.de)

#### 1.4. Emergency telephone number:

Poison Center North (GIZ) pharmacological toxicological service centre of the University of Göttingen Robert-Koch-Straße 40 D-37075 Göttingen + 49 (0) 551 19240 (24 h / d)

This number is serviced during office hours.:

Mo - Do 9 - 15 h, Fr 9 - 12 h

+49 5177 / 85 - 100

#### Further Information

Mixtures must not be registered according to REACH (article 2.7 d). REACH registration numbers of dangerous substances in this mixture (if available): See item 3.

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No. 1272/2008

Hazard categories:

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Causes serious eye irritation.

#### 2.2. Label elements

##### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

Reaction products of 4-methylpentanol and diphosphorous pentasulfide, propoxylated, esterified with diphosphorous pentoxide, and salted by amines C12-14-ter-alkyl

Signal word: Warning

Pictograms:



##### Hazard statements

H319 Causes serious eye irritation.

##### Precautionary statements

P264 Wash hands thoroughly after handling.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

Print date: 11.12.2017

Product code: 150146PEN

Page 2 of 8

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

#### Special labelling of certain mixtures

- EUH208 Contains Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14-tert-alkylated & reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivates.. May produce an allergic reaction.

#### 2.3. Other hazards

Product can build up a film on the water surface which can inhibit the oxygen exchange. See also sections 11, 12 and 15.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Chemical characterization

Additive, mineral oil.

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
	Reaction products of 4-methylpentanol and diphosphorous pentasulfide, propoxylated, esterified with diphosphorous pentoxide, and salted by amines C12-14-ter-alkyl			1 - < 2.5 %
	931-384-6		01-2119493620-38	
	Acute Tox. 4, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 2; H302 H318 H317 H411			
112-90-3	Oleylamin			0.5 - < 1 %
	204-015-5			
	Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1 (M-Factor = 1); H302 H314 H318 H335 H373 H304 H400 H410			
	Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.			0.1 - < 0.5 %
	939-460-0		01-2119971727-23	
	Flam. Liq. 3, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H226 H315 H318 H317 H412			

Full text of H and EUH statements: see section 16.

##### Further Information

All concentrations are quoted as mass percentages for liquids and volume percentages for gases. Other substances which are not classified as dangerous are contained up to 100 %.

Full text of R- and H-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In all cases of doubt, or when symptoms persist, seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

##### After inhalation

Remove casualty to fresh air and keep warm and at rest. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

Print date: 11.12.2017

Product code: 150146PEN

Page 3 of 8

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing immediately and dispose off safely. In case of skin irritation, seek medical treatment.

#### After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

#### After ingestion

Do NOT induce vomiting. Call a physician immediately. Aspiration hazard:

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

No data available.

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

No data available.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>).

Foam.

Dry extinguishing powder.

Use water spray jet to protect personnel and to cool endangered containers.

##### Unsuitable extinguishing media

Water.

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

The formation of combustible vapours is possible at temperatures above: Flash point.  
Hot product may produce flammable vapours.

In case of fire may be liberated:

Pyrolysis products, toxic.

hydrocarbons.

Carbon dioxide.

Carbon monoxide.

Hydrogen sulphide (H<sub>2</sub>S).

Nitrogen oxides (NO<sub>x</sub>).

Phosphorus oxides.

Smoke.

#### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Full protective suit.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

#### Additional information

B: Burning liquid or melting substances.

### SECTION 6: Accidental release measures

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

Provide adequate ventilation as well as local exhaustion at critical locations.

Keep away from sources of ignition. - No smoking.

Avoid contact with skin and eyes.

Conditions to avoid: Inhalation.

Do not put any product-impregnated cleaning rags into your trouser pockets.

High slip hazard because of leaking or spilled product.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

Print date: 11.12.2017

Product code: 150146PEN

Page 4 of 8

#### **6.2. Environmental precautions**

- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Do not empty into drains.
- If product enters soil, it will be mobile and may contaminate groundwater.

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

- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
- Treat the recovered material as prescribed in the section on waste disposal.

#### **6.4. Reference to other sections**

- See section 8 & 13.

## SECTION 7: Handling and storage

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

- See section 6.1
- Avoid contact with skin and eyes.
- Keep away from sources of ignition. - No smoking.
- Wash hands before breaks and after work.
- All work processes must always be designed so that the following is excluded:  
Generation/formation of mist

#### **Advice on protection against fire and explosion**

- Take precautionary measures against static discharges.

#### **Further information on handling**

- Do not put any product-impregnated cleaning rags into your trouser pockets.
- The formation of combustible vapours is possible at temperatures above: Flash point

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Requirements for storage rooms and vessels**

- Keep/Store only in original container.

#### **Advice on storage compatibility**

- Do not store together with:  
Spontaneous combustion.

#### **Further information on storage conditions**

- Protect from moisture.
- Keep in a cool place.
- Keep only in the original container at temperature not exceeding 50 °C.

### **7.3. Specific end use(s)**

- Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### **8.1. Control parameters**

### **8.2. Exposure controls**

#### **Appropriate engineering controls**

- Provide adequate ventilation as well as local exhaust at critical locations.

#### **Protective and hygiene measures**

- Take off immediately all contaminated clothing.
- Wash hands before breaks and after work. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.

#### **Eye/face protection**

- Tightly sealed safety glasses.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

Print date: 11.12.2017

Product code: 150146PEN

Page 5 of 8

German Industry Norms (DIN) / European Norms (EN): DIN EN 166

#### Hand protection

Examples of suitable protective gloves from the company KCL GmbH, D-36124 oak cellular, phone +49 (0) 6659 87300, E-mail are: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) with the following specification (test according to EN 374

In full contact / splash contact:

Camatril (Item no.: 731; material: nitrile, Minimum coat thickness: 0.33 mm, Breakthrough time: 480 min)

Dermatril (Item no.: 740; material: nitrile, Minimum coat thickness: 0.11 mm, Breakthrough time: 30 min)

The selected protective gloves have to satisfy the specifications of EU Directive 89/686 / EEC and the resultant standard EN374. The breakthrough times stated above are based on laboratory measurements of KCL to EN374 and are only authoritative for the recommended glove types.

Protect skin by using skin protective cream.

#### Skin protection

The type of personal protection equipment has to be chosen based on the concentration and amount of the dangerous substance at the workplace. For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

Chemical resistant safety shoes. with lead protection cap.

German Industry Norms (DIN) / European Norms (EN): DIN EN 344

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Generation/formation of mist: Filtering device with filter or ventilator filtering device of type: A-P2.

#### Environmental exposure controls

Technical measures to prevent exposure.

Organisational measures to prevent exposure.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	yellow, brown
Odour:	characteristic

#### Test method

#### Changes in the physical state

Initial boiling point and boiling range:	> 320 °C
Flash point:	> 200 °C DIN ISO 2592
Lower explosion limits:	0,6 vol. %
Upper explosion limits:	6,5 vol. %
Ignition temperature:	> 250 °C ASTM E 659
Density (at 15 °C):	0,893 - 0,903 g/cm <sup>3</sup> DIN 53217

#### Solubility in other solvents

insoluble in: Water.

Viscosity / kinematic: (at 100 °C)	16,0 -18,0 mm <sup>2</sup> /s DIN 51562
---------------------------------------	---

#### 9.2. Other information

No data available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

See section 9.

#### 10.2. Chemical stability

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

Print date: 11.12.2017

Product code: 150146PEN

Page 6 of 8

If product is stored and handled as prescribed it is stable.

#### 10.3. Possibility of hazardous reactions

The formation of combustible vapours is possible at temperatures above: Flash point

#### 10.4. Conditions to avoid

Oxidizing agents, strong.

#### 10.5. Incompatible materials

No data available.

#### 10.6. Hazardous decomposition products

See section 5.3.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### **Toxicokinetics, metabolism and distribution**

There are no data available on the preparation/mixture itself.

##### **Acute toxicity**

Classification: none.

The classification was carried out according to the calculation method of the regulation (EC) 1272/2008 [CLP].

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
	Reaction products of 4-methylpentanol and diphosphorous pentasulfide, propoxylated, esterified with diphosphorous pentaoxide, and salted by amines C12-14-ter-alkyl			
	oral	LD50 500 mg/kg		Estimation acc. CLP
112-90-3	Oleylamin			
	oral	LD50 888 mg/kg	Rat	literature value

##### **Irritation and corrosivity**

The classification was carried out according to the calculation method of the regulation (EC) 1272/2008 [CLP].

##### **Sensitising effects**

Dermal sensitisation is not expected to be observed for formulations containing < 2,5 % of "reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl".

Frequently or prolonged contact with skin may cause dermal irritation.

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

##### **STOT-repeated exposure**

Classification: none.

The classification was carried out according to the calculation method of the regulation (EC) 1272/2008 [CLP].

##### **Specific effects in experiment on an animal**

There are no data available on the preparation/mixture itself.

##### **Additional information on tests**

Frequently or prolonged contact with skin may cause dermal irritation.

### SECTION 12: Ecological information

#### 12.1. Toxicity

There are no data available on the preparation/mixture itself.

EC50 > 100 mg/l The statement is derived from products of similar structure or composition .

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

Print date: 11.12.2017

Product code: 150146PEN

Page 7 of 8

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h]   [d]	Species	Source
	Reaction products of 4-methylpentanol and diphosphorous pentasulfide, propoxylated, esterified with diphosphorous pentoxide, and salted by amines C12-14-ter-alkyl				
	Acute crustacea toxicity	EC50	91,4 mg/l	48 h	daphnia magna
112-90-3	Oleylamin				
	Acute crustacea toxicity	EC50	0,011 mg/l	48 h	daphnia magna

#### 12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria).

Product is not easily biodegradable. (Data apply to the main component.)

#### 12.3. Bioaccumulative potential

There are no data available on the preparation/mixture itself.

#### 12.4. Mobility in soil

There are no data available on the preparation/mixture itself.

#### 12.5. Results of PBT and vPvB assessment

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

#### 12.6. Other adverse effects

Effects in sewage plants: Mechanical separation in a suitable sewage plant is possible.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### **Advice on disposal**

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

Observe mixture permissions according to "Altölverordnung (Waste oil directive)".

Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions.

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

##### **Waste disposal number of waste from residues/unused products**

130205 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19); waste engine, gear and lubricating oils; mineral-based non-chlorinated engine, gear and lubricating oils  
Classified as hazardous waste.

##### **Waste disposal number of used product**

130205 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19); waste engine, gear and lubricating oils; mineral-based non-chlorinated engine, gear and lubricating oils  
Classified as hazardous waste.

##### **Waste disposal number of contaminated packaging**

130205 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19); waste engine, gear and lubricating oils; mineral-based non-chlorinated engine, gear and lubricating oils  
Classified as hazardous waste.

##### **Contaminated packaging**

Dispose of waste according to applicable legislation.

Non-contaminated packages may be recycled.

Packing which cannot be properly cleaned must be disposed of.

### SECTION 14: Transport information

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### PENNASOL LIMITED SLIP HYPOID GEAR OIL LS GL5 SAE 90

Print date: 11.12.2017

Product code: 150146PEN

Page 8 of 8

#### Other applicable information

No dangerous good in sense of these transport regulations.

### SECTION 15: Regulatory information

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

##### National regulatory information

Water contaminating class (D): 2 - water contaminating

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14-tert-alkylated & reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivates.. May produce an allergic reaction.

#### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*