



SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

1.1 Product identifier

Product name: RENOLIN ZAF 46 HV

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

Identified uses: Lubricant

Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

FUCHS LUBRICANTS (UK) PLC.
New Century Street
Hanley
Stoke-on-Trent, Staffordshire, ST1 5HU
UK

Telephone: +44 (0) 1782 203700

Contact Person:

Product Safety department
Telephone: +44 (0) 1782 203700
E-mail: product.safety@fuchs-oil.com

1.4 Emergency telephone number: +44 (0) 1782 203700

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has not been classified as hazardous, but needs to be labelled according to regulation (EU) 1272/2008 (CLP).

Hazard summary

Physical Hazards: No data available.

2.2 Label Elements

EUH210: Safety data sheet available on request.

2.3 Other hazards:

By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept. The product may not be released into the environment without control.

SECTION 3: Composition/information on ingredients

Product name: RENOLIN ZAF 46 HV

3.2 Mixtures

General information: Mixture containing severely refined base oils and additives.

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
Base oil, low viscous	EINECS: 265-157-1	1,00 - <10,00%	01-2119484627-25	
Phenolic antioxidant agent	EINECS: 204-884-0	0,10 - <0,25%	01-2119490822-33	
Alkylen amine	EINECS: 204-015-5	0,01 - <0,25%		

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Identifier	Classification
Base oil, low viscous	EINECS: 265-157-1	CLP: Asp. Tox. 1;H304
Phenolic antioxidant agent	EINECS: 204-884-0	CLP: Aquatic Chronic 1;H410, Skin Irrit. 2;H315
Alkylen amine	EINECS: 204-015-5	CLP: Asp. Tox. 1;H304, STOT RE 2;H373, Skin Corr. 1B;H314, Eye Dam. 1;H318, Aquatic Acute 1;H400, Aquatic Chronic 1;H410, Acute Tox. 4;H302, STOT SE 3;H335; M-Factor (aquatic acute): 10; M-Factor (aquatic chronic): 10

CLP: Regulation No. 1272/2008.

For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

General: Change clothes and shoes contaminated or soaked by the product. Never put rags contaminated by the product into clothing pockets.

4.1 Description of first aid measures

Inhalation: Supply fresh air; consult doctor in case of symptoms.

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Skin Contact: Wash with soap and water.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: May cause skin and eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed: Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

Product name: RENOLIN ZAF 46 HV

5.1 Extinguishing media

Suitable extinguishing media: CO₂, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added

Unsuitable extinguishing media: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture: During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire fighting procedures: No data available.

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: In case of spills, beware of slippery floors and surfaces.

6.2 Environmental Precautions: Prevent from spreading (e.g. by binding or oil barriers).

6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust).

6.4 Reference to other sections: See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling: Provide adequate ventilation. Observe good industrial hygiene practices. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products.

7.2 Conditions for safe storage, including any incompatibilities: Local regulations concerning handling and storage of waterpolluting products have to be followed. Prevent formation of aerosols. Do not heat up to temperatures close to the flash point.

7.3 Specific end use(s): No data available.

Storage Class: 10, Combustible liquids

Product name: RENOLIN ZAF 46 HV

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

8.2 Exposure controls

Appropriate engineering controls:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information:

Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to in handling the chemicals or the mineral oil products.

Eye/face protection:

Safety glasses (EN 166) recommended during refilling.

Skin protection

Hand Protection:

Material: Nitrile butyl rubber (NBR). Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other:

Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory Protection:

Seek advice from local supervisor. Ensure good ventilation/exhaustion at the workplace. Avoid breathing vapour/ aerosol.

Thermal hazards:

Not known.

Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Environmental Controls:

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Product name: RENOLIN ZAF 46 HV

Physical state:	liquid
Form:	liquid
Color:	Brown
Odor:	Characteristic
Odor Threshold:	Not applicable for mixtures
pH:	not applicable
Freezing point:	Not applicable for mixtures
Boiling Point:	No data available.
Flash Point:	> 100 °C
Evaporation Rate:	Not applicable for mixtures
Flammability (solid, gas):	Value not relevant for classification
Flammability Limit - Upper (%)-:	Not applicable for mixtures
Flammability Limit - Lower (%)-:	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Vapor density (air=1):	Not applicable for mixtures
Density:	0,87 g/cm ³ (15 °C)
Solubility(ies)	
Solubility in Water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable for mixtures
Autoignition Temperature:	Value not relevant for classification
Decomposition Temperature:	Value not relevant for classification
Kinematic viscosity:	46 mm ² /s (40 °C)
Explosive properties:	Value not relevant for classification
Oxidizing properties:	Value not relevant for classification
9.2 Other information	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Stable under normal temperature conditions and recommended use.
10.2 Chemical Stability:	No data available.
10.3 Possibility of hazardous reactions:	None under normal conditions.
10.4 Conditions to avoid:	Avoid heat or contamination.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Product name: RENOLIN ZAF 46 HV

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Oral

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

Base oil, low viscous	LD 50 (Rat): > 5.000 mg/kg
Phenolic antioxidant agent	No data available.
Alkylen amine	LD 50 (Rat): 1.689 mg/kg

Dermal

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

Base oil, low viscous	LD 50 (Rabbit): > 5.000 mg/kg
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Inhalation

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Repeated dose toxicity

Product:

No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Skin Corrosion/Irritation:

Product:

No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.



Product name: RENOLIN ZAF 46 HV

Serious Eye Damage/Eye Irritation:

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Respiratory or Skin Sensitization:

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

In vivo

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Carcinogenicity

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Reproductive toxicity

Product: No data available.

Product name: RENOLIN ZAF 46 HV

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Aspiration Hazard

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Other Adverse Effects: No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

Fish

Product: No data available.

Specified substance(s)

Base oil, low viscous	LC 50 (Fish, 96 h): > 101 mg/l
Phenolic antioxidant agent	No data available.
Alkylen amine	LC 50 (Fish, 96 h): > 0,11 - 1 mg/l

Aquatic Invertebrates

Product: No data available.

Product name: RENOLIN ZAF 46 HV

Specified substance(s)

Base oil, low viscous	EC 50 (Water Flea, 48 h): > 10.000 mg/l
Phenolic antioxidant agent	No data available.
Alkylen amine	EC 50 (Water Flea, 48 h): > 0,11 - 1 mg/l

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

Base oil, low viscous	EC 50 (Alga, 72 h): > 101 mg/l
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

12.2 Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s)

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

12.3 Bioaccumulative Potential

Product: No data available.

Specified substance(s)



Product name: RENOLIN ZAF 46 HV

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

12.4 Mobility in Soil: No data available.

Known or predicted distribution to environmental compartments

Base oil, low viscous	No data available.
Phenolic antioxidant agent	No data available.
Alkylen amine	No data available.

12.5 Results of PBT and vPvB assessment: The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Other Adverse Effects: Experimental data has shown that the concentration of the potentially aquatic toxic components present in this product is not harmful to aquatic organisms.

Water Hazard Class (WGK): WGK 1: slightly water-endangering.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: Dispose in accordance with all applicable regulations.

Disposal methods: Do not empty into drains; dispose of this material and its container in a safe way. When storing used products, ensure that the waste categories and mixing instructions are observed.

European Waste Codes

13 01 10*: mineral based non-chlorinated hydraulic oils

SECTION 14: Transport information

ADR/RID

14.1 UN Number:	—
14.2 UN Proper Shipping Name:	—
14.3 Transport Hazard Class(es)	
Class:	Non-dangerous goods
Label(s):	—
Hazard No. (ADR):	—
Tunnel restriction code:	—
14.4 Packing Group:	—
14.5 Environmental hazards:	—
14.6 Special precautions for user:	—



Product name: RENOLIN ZAF 46 HV

ADN

- 14.1 UN Number: –
- 14.2 UN Proper Shipping Name: –
- 14.3 Transport Hazard Class(es)
Class: Non-dangerous goods
- Label(s): –
- 14.3 Packing Group: –
- 14.5 Environmental hazards: –
- 14.6 Special precautions for user: –

IMDG

- 14.1 UN Number: –
- 14.2 UN Proper Shipping Name: –
- 14.3 Transport Hazard Class(es)
Class: Non-dangerous goods
- Label(s): –
- EmS No.: –
- 14.3 Packing Group: –
- 14.5 Environmental hazards: –
- 14.6 Special precautions for user: –

IATA

- 14.1 UN Number: –
- 14.2 Proper Shipping Name: –
- 14.3 Transport Hazard Class(es):
Class: Non-dangerous goods
- Label(s): –
- 14.4 Packing Group: –
- 14.5 Environmental hazards: –
- 14.6 Special precautions for user: –

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not applicable.

SECTION 15: Regulatory information

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

EU Regulations

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: none

Regulation (EC) No. 850/2004 on persistent organic pollutants: none

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Vertical lines in the margin indicate an amendment.



Product name: RENOLIN ZAF 46 HV

Wording of the H-statements in section 2 and 3

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.
H318	Causes serious eye damage.
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.

Training information: Follow training instructions when handling this material.

Other information: The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies. The classification results from the Conventional Method mentioned in regulation EU 1272/2008 (CLP).

Revision Date: 22.02.2016

Disclaimer: The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.