

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS #: 31509 EQUIVIS ZS 46

Date of the previous version: 2018-01-16 Revision Date: 2018-01-26 Version 8.04

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE

COMPANY/UNDERTAKING

# 1.1. Product identifier

Product name EQUIVIS ZS 46

Number363Substance/mixtureMixture

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

Identified uses Hydraulic oil.

1.3. Details of the supplier of the safety data sheet

Supplier A - TOTAL UK LIMITED

183 Eversholt St, Kings Cross

London, NW1 1BU UNITED KINGDOM Tel: +44 (0)20 7339 8000 Fax: +44 (0)20 7339 8033

B - TOTAL LUBRIFIANTS 562 Avenue du Parc de L'ile

92029 Nanterre Cedex

**FRANCE** 

Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71\*\*\*

### For further information, please contact:

Contact Point A - HSE

B - HSE\*\*\*

E-mail Address A - rm.gb-msds@total.co.uk

B - rm.msds-lubs@total.com\*\*\*

### 1.4. Emergency telephone number

Emergency telephone: +44 1235 239670

UK: National Poisons Information Service (NPIS): NHS on 111 or a doctor

# Section 2: HAZARDS IDENTIFICATION

## 2.1. Classification of the substance or mixture



# **EQUIVIS ZS 46**

**Revision Date: 2018-01-26** Version 8.04

REGULATION (EC) No 1272/2008

For the full text of the H-Statements mentioned in this Section, see Section 2.2.\*\*\*

Classification

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008\*\*\*

2.2. Label elements

REGULATION (EC) No 1272/2008\*\*\* Labelled according to

Signal word

None\*\*\*

Hazard Statements \*\*\*

None\*\*\*

**Precautionary statements** 

None\*\*\*

**Supplemental Hazard Statements** 

EUH210 - Safety data sheet available on request\*\*\*

2.3. Other hazards

Contaminated surfaces will be extremely slippery.\*\*\* **Physical-Chemical Properties** 

**Environmental properties** The product may form an oil film on the water surface that may stop the oxygen

exchange.\*\*\*

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixture\*\*\*

**Chemical nature** Mineral oil of petroleum origin.\*\*\*

Hazardous components					
Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight %	Classification (Reg. 1272/2008)
Distillates (petroleum), hydrotreated heavy paraffinic***	265-157-1	01-2119484627-25	64742-54-7	1-<3	Asp. Tox. 1 (H304)
2,6-di-tert-butylphenol***	204-884-0	01-2119490822-33	128-39-2	0.1-<0.25	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315) Acute M factor = 1

Additional information

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.\*\*\*



# **EQUIVIS ZS 46**

Revision Date: 2018-01-26 Version 8.04

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

General advice IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR

**EMERGENCY MEDICAL CARE.\*\*\*** 

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Keep eye wide open while rinsing.\*\*\*

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Wash contaminated clothing before reuse. High pressure jets may

cause skin damage. Take victim immediately to hospital.\*\*\*

**Inhalation** Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not

breathing, give artificial respiration.\*\*\*

**Ingestion** Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an

unconscious person. Call a physician or poison control centre immediately.\*\*\*

Protection of first-aiders First aider needs to protect himself. See Section 8 for more detail. Do not use

mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper

respiratory medical device.\*\*\*

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

Eye contact Not classified based on available data.\*\*\*

Skin contact Not classified based on available data. High pressure injection of the products under the

skin may have very serious consequences even though no symptom or injury may be

apparent.\*\*\*

Inhalation Not classified based on available data. Inhalation of vapours in high concentration may

cause irritation of respiratory system.\*\*\*

Ingestion Not classified based on available data. Ingestion may cause gastrointestinal irritation,

nausea, vomiting and diarrhoea.\*\*\*

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

Notes to physician Treat symptomatically.\*\*\*

### Section 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

Suitable extinguishing media Carbon dioxide (CO2). ABC powder. Foam. Water spray or fog.\*\*\*



Revision Date: 2018-01-26 Version 8.04

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

Special hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as

carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Combustion products include sulphur oxides ( SO2 and SO3 ) and Hydrogen sulphide H2S. Nitrogen oxides (NOx). Phosphorous oxides. Mercaptans. Zinc oxides. Silicon dioxide.\*\*\*

5.3. Precautions for fire-fighters

Special protective equipment for

fire-fighters

Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing

water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely

slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all

sources of ignition.\*\*\*

6.2. Environmental precautions

General Information Do not allow material to contaminate ground water system. Prevent entry into waterways,

sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information.\*\*\*

6.3. Methods and material for containment and cleaning up

Methods for containment Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar

non-combustible materials.\*\*\*

Methods for cleaning up

Dispose of contents/container in accordance with local regulation. In case of soil

contamination, remove contaminated soil for remediation or disposal, in accordance with

local regulations.\*\*\*

6.4. Reference to other sections

Personal protective equipment See Section 8 for more detail.

Waste treatment See section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling



# **EQUIVIS ZS 46**

Revision Date: 2018-01-26 Version 8.04

Advice on safe handling For personal protection see section 8. Use only in well-ventilated areas. Do not breathe

vapours or spray mist. Avoid contact with skin, eyes and clothing.\*\*\*

Prevention of fire and explosion Take precautionary measures against static discharges.\*\*\*

**Hygiene measures**Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before

breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product

contaminated rags into workwear pockets.\*\*\*

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage

conditions

Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Preferably keep in the original container. Otherwise, reproduce all the statutory information from the labels onto the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Store at room temperature. Protect from moisture.\*\*\*

Materials to avoid Strong oxidising agents.\*\*\*

7.3. Specific use(s)

Specific use(s) Please refer to Technical Data Sheet for further information.\*\*\*

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parametres

Exposure limits Mineral oil mist:

USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH

(TLV) TWA 5 mg/m<sup>3</sup> (highly refined)

**Legend** See section 16

Derived No Effect Level (DNEL) \*\*\*

DNEL Worker (Industrial/Professional)\*\*\*

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7				5.4 mg/m³/8h (aerosol - inhalation)
2,6-di-tert-butylphenol*** 128-39-2			2.77 mg/kg bw/day Dermal 19.6 mg/m³ Inhalation	



Revision Date: 2018-01-26 Version 8.04

**DNEL Consumer\*\*\*** 

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7				1.2 mg/m³/24h (aerosol - inhalation)
2,6-di-tert-butylphenol*** 128-39-2			1.67 mg/kg bw/day Oral 5.8 mg/m³ Inhalation	

Predicted No Effect Concentration \*\*\*
(PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
2,6-di-tert-butylphen	0.00045 mg/l fw	0.196 mg/kg dw	0.0389 mg/kg dw		10 mg/l	
ol***	0.000045 mg/l	fw				
128-39-2	mw	0.0196 mg/kg dw				
	0.0045 mg//l or	mw				

### 8.2. Exposure controls

### **Occupational Exposure Controls**

**Engineering measures** 

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.\*\*\*

#### Personal protective equipment

**General Information** 

Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product AS DELIVERED. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.\*\*\*

Respiratory protection

None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P1. Warning! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.\*\*\*

Eye protection

If splashes are likely to occur, wear:. Safety glasses with side-shields. EN 166.\*\*\*

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Type 4/6.\*\*\*

**Hand protection** 

Hydrocarbon-proof gloves. Fluorinated rubber. Nitrile rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.\*\*\*



# **EQUIVIS ZS 46**

**Revision Date:** 2018-01-26 **Version** 8.04

#### **Environmental exposure controls**

**General Information** 

**Appearance** 

Colour

The product should not be allowed to enter drains, water courses or the soil.

Clear\*\*\*

yellow\*\*\*

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

## 9.1. Information on basic physical and chemical properties

Physical state @20°C liauid\*\*\* Odour characteristic\*\*\* No information available\*\*\* **Odour Threshold** Values Method **Property** Remarks Not applicable\*\*\* pН Melting point/range \*\*\* No information available\*\*\* No information available\*\*\* Boiling point/boiling range Flash point \*\*\* >\*\*\* 215\*\*\* °C\*\*\* **ASTM D 93\*\*\*** >\*\*\* 419\*\*\* °F\*\*\* **ASTM D 93\*\*\*** No information available\*\*\* **Evapouration rate** Flammability Limits in Air Upper \*\*\* \*\*\* No information available\*\*\* Lower \*\*\* No information available\*\*\* No information available\*\*\* Vapour pressure Vapour density No information available\*\*\* \*\*\* 0.845\*\*\* -\*\*\* Relative density \*\*\* @ 20 °C\*\*\* ASTM D 4052\*\*\* 0.865\*\*\* 845\*\*\* - \*\*\* 865\*\*\* @ 20 °C\*\*\* ASTM D 4052\*\*\* **Density** kg/m<sup>3\*\*\*</sup> Water solubility Insoluble\*\*\* No information available\*\*\* Solubility in other solvents No information available\*\*\* logPow **Autoignition temperature** No information available\*\*\* Decomposition temperature \*\*\* No information available\*\*\* \*\*\* 43.7\*\*\* -\*\*\* 48.3\*\*\* Viscosity, kinematic \*\*\* @ 40 °C \*\*\* ASTM D 445\*\*\* mm2/s\*\*\* Not explosive\*\*\* **Explosive properties** Not applicable\*\*\* **Oxidising properties** Possibility of hazardous reactions None under normal processing\*\*\* 9.2. Other information Freezing point \*\*\* No information available\*\*\* \*\*\*



Revision Date: 2018-01-26 Version 8.04

### Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information None under normal processing.\*\*\*

10.2. Chemical stability

**Stability** Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.\*\*\*

10.4. Conditions to avoid

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat

and sparks.\*\*\*

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.\*\*\*

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as

carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Phosphorous oxides. Nitrogen oxides (NOx). Mercaptans. Combustion products include sulphur oxides (

SO2 and SO3) and Hydrogen sulphide H2S. Zinc oxides. Silicon dioxide.\*\*\*

# Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

### Acute toxicity Local effects Product Information

Skin contact . Not classified based on available data. High pressure injection of the products under the

skin may have very serious consequences even though no symptom or injury may be

apparent.\*\*\*

Eye contact . Not classified based on available data.\*\*\*

Inhalation . Not classified based on available data. Inhalation of vapours in high concentration may

cause irritation of respiratory system.\*\*\*

**Ingestion** . Not classified based on available data. Ingestion may cause gastrointestinal irritation,

nausea, vomiting and diarrhoea.\*\*\*

ATEmix (inhalation-dust/mist) 353.40\*\*\* mg/l\*\*\*



# **EQUIVIS ZS 46**

**Revision Date: 2018-01-26** Version 8.04

#### Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates (petroleum), hydrotreated heavy	LD50 > 5000 mg/kg bw (rat -	LD50 > 5000 mg/kg bw (rabbit -	LC50 (4h) > 5 mg/l (aerosol) (rat -
paraffinic***	OECD 420)	OECD 402)	OECD 403)
2,6-di-tert-butylphenol***	> 5000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	

Sensitisation

Not classified based on available data.\*\*\* Sensitisation

Specific effects

Not classified based on available data.\*\*\* Carcinogenicity

Mutagenicity

Germ cell mutagenicity Not classified based on available data.\*\*\*

Not classified based on available data.\*\*\* Reproductive toxicity

Repeated dose toxicity

**Target Organ Effects (STOT)** 

Specific target organ systemic

toxicity (single exposure)

Not classified based on available data.\*\*\*

Specific target organ toxicity -

repeated exposure

Not classified based on available data.\*\*\*

**Aspiration toxicity** Not classified based on available data.\*\*\*

Other information

Other adverse effects Characteristic skin lesions (oil blisters) may develop following prolonged and repeated

exposures (contact with contaminated clothing).\*\*\*

# Section 12: ECOLOGICAL INFORMATION

## 12.1. Toxicity

Not classified based on available data.\*\*\*

Acute aquatic toxicity - Product Information\*\*\*

No information available.\*\*\*

### Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum),	EL50 (48h) > 100 mg/l	EL50 (48h) > 10000 mg/l	LL50 (96h) > 100 mg/l	



> **Revision Date: 2018-01-26** Version 8.04

hydrotreated heavy paraffinic*** 64742-54-7	(Pseudokirchnerella subcapitata - OECD 201)	(Daphnia magna - OECD 202)	(Oncorhynchus mykiss - OECD 203)	
2,6-di-tert-butylphenol*** 128-39-2	EC50 (72h) 1.2 mg/l	EC50 (48h) = 0.45 mg/L Daphnia magna	LC50(96h) 1 mg/l (fish)	

## Chronic aquatic toxicity - Product Information

No information available.3

## Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7		NOEL (21d) 10 mg/l (Daphnia magna - QSAR Petrotox)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
2,6-di-tert-butylphenol*** 128-39-2			NOEC (28d) 0.3 mg/l (fish)	

### Effects on terrestrial organisms

No information available.\*

# 12.2. Persistence and Degradability

### **General Information**

No information available.

### 12.3. Bioaccumulative potential

No information available.\*\*\* **Product Information** 

**logPow** No information available\*\*\*

**Component Information** 

Chemical Name	log Pow
Distillates (petroleum), hydrotreated heavy paraffinic*** - 64742-54-7	-
2,6-di-tert-butylphenol*** - 128-39-2	4.48

# 12.4. Mobility in soil

Given its physical and chemical characteristics, the product generally shows low soil Soil

mobility.\*\*\*

Air Loss by evaporation is limited.\*\*\*

Water The product is insoluble and floats on water.\*\*\*

# 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.\*\*\*



# **EQUIVIS ZS 46**

Revision Date: 2018-01-26 Version 8.04

12.6. Other adverse effects

General Information No information available.\*\*\*

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Waste from residues / unused

products

Should not be released into the environment. Do not empty into drains. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Where possible recycling is preferred to disposal or

incineration.\*\*\*

Contaminated packageing Empty containers should be taken to an approved waste handling site for recycling or

disposal.\*\*\*

EWC Waste Disposal No According to the European Waste Catalogue, Waste Codes are not product specific, but

application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions:. 13 01

10.\*\*\*

Other information Refer to section 8 for safety and protective measures for disposal personnel.\*\*\*

# Section 14: TRANSPORT INFORMATION

ADR/RID not regulated

IMDG/IMO not regulated

ICAO/IATA not regulated

ADN not regulated

### Section 15: REGULATORY INFORMATION

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

**European Union** 

Further information

No information available\*\*\*



# **EQUIVIS ZS 46**

**Revision Date:** 2018-01-26 **Version** 8.04

## 15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available\*\*\*

## 15.3. National regulatory information

### **The United Kingdom**

Avoid exceeding occupational exposure limits (see section 8).

#### Ireland

• Avoid exceeding occupational exposure limits (see section 8).

### Section 16: OTHER INFORMATION

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

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects\*\*\*

### Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

dw = dry weight

fw = fresh water

mw = marine water

or = occasional release

### **Legend** Section 8

TWA: Time Weight Average STEL: Short Time Exposure Limit



Revision Date: 2018-01-26 Version 8.04

+ Sensitiser \* Skin designation
\*\* Hazard Designation C: Carcinogen

M: Mutagen R: Toxic to reproduction

**Revision Date:** 2018-01-26

**Revision Note** \*\*\* Indicates updated section.

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

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

**End of Safety Data Sheet**