

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019

Page 1 / 17

Version 08. Supersedes version: 07

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

#### 1.1 Product identifier

Arcanol VIB3

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

##### 1.2.1 Relevant uses

Lubricant

##### 1.2.2 Uses advised against

None known.

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

##### Company

Schaeffler Technologies AG & Co. KG  
Georg-Schäfer-Str. 30  
97421 Schweinfurt / GERMANY  
Phone +49 (0)9721 91 - 0  
Homepage [www.schaeffler.com](http://www.schaeffler.com)

##### Address enquiries to

##### Technical information

[support.is@schaeffler.com](mailto:support.is@schaeffler.com)

##### Safety Data Sheet

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

#### 1.4 Emergency telephone number

##### Advisory body

+49 (0)89-19240 (24h) (English)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Skin Sens. 1B: H317 May cause an allergic skin reaction.  
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019  
Version 08. Supersedes version: 07

Page 2 / 17

### 2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

**Hazard pictograms**



**Signal word**

WARNING

**Contains:**

Naphthenic acids, zinc salts

**Hazard statements**

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P280 Wear protective gloves / eye protection / face protection.

P333+P313 If skin irritation or rash occurs: Get medical advice / attention.

P273 Avoid release to the environment.

P501 Dispose of contents/container in accordance with local/national regulation.

### 2.3 Other hazards

**Environmental hazards**

Does not contain any PBT or vPvB substances.

**Other hazards**

Further hazards were not determined with the current level of knowledge.

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019

Page 3 / 17

Version 08. Supersedes version: 07

### SECTION 3: Composition / Information on ingredients

#### Product-type:

3.2 The product is a mixture.

Range [%]	Substance
1 - < 2.5	Naphthenic acids, zinc salts
	CAS: 12001-85-3, EINECS/ELINCS: 234-409-2, Reg-No.: 01-2120783834-41
	GHS/CLP: Eye Irrit. 2: H319 - Skin Sens. 1B: H317 - Aquatic Chronic 2: H411
1 - < 2.5	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts
	CAS: 85940-28-9, EINECS/ELINCS: 288-917-4, Reg-No.: 01-2119521201-61-XXXX
	GHS/CLP: Eye Irrit. 2: H319 - Skin Irrit. 2: H315 - Aquatic Chronic 2: H411
0.1 - < 1	Dilithium tetraborate
	CAS: 12007-60-2, EINECS/ELINCS: 234-514-3, Reg-No.: 01-2120770724-49
	GHS/CLP: Eye Dam. 1: H318 - Acute Tox. 4: H302 - Repr. 2: H361d

#### Comment on component parts

All chemical substances in this material are included on or exempted from listing on the IECSC Inventory.  
 Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.  
 For full text of H-statements: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Change soaked clothing.

##### Inhalation

Ensure supply of fresh air.  
 In the event of symptoms seek medical treatment.

##### Skin contact

When in contact with the skin, clean with soap and water.  
 Consult a doctor if skin irritation persists.

##### Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.

##### Ingestion

Seek medical advice immediately.  
 Do not induce vomiting.

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

No information available.

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019  
Version 08. Supersedes version: 07

Page 4 / 17

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

Treat symptomatically.  
Forward this sheet to the doctor.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing** Carbon dioxide.  
Water spray jet.  
Dry powder.  
Foam.

**Extinguishing media that must not be used** Full water jet.

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

Risk of formation of toxic pyrolysis products.  
Carbon monoxide (CO)

### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

## SECTION 6: Accidental release measures

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

High risk of slipping due to leakage/spillage of product.  
Forms slippery surfaces with water.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

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

Take up mechanically.  
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019

Page 5 / 17

Version 08. Supersedes version: 07

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Use only in well-ventilated areas.  
No special measures necessary if used correctly.

Wash hands before breaks and after work.  
Use barrier skin cream.  
Do not eat, drink or smoke when using this product.  
Cloths contaminated with product should not be kept in trouser pockets.

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

Keep only in original container.  
Prevent penetration into the ground.  
Do not store together with food and animal food/diet.  
Do not store together with oxidizing agents.  
Keep container tightly closed.

#### 7.3 Specific end use(s)

See product use, SECTION 1.2

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019

Page 6 / 17

Version 08. Supersedes version: 07

### SECTION 8: Exposure controls / personal protection

#### 8.1 Control parameters

**Ingredients with  
occupational exposure  
limits to be monitored (GB)**

not applicable

#### DNEL

Substance
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
Industrial, dermal, Long-term - systemic effects: 9,6 mg/kg bw/d.
Industrial, inhalative, Long-term - systemic effects: 6,6 mg/m <sup>3</sup> .
general population, oral, Long-term - systemic effects: 0,19 mg/kg bw/d.
general population, dermal, Long-term - systemic effects: 4,8 mg/kg bw/d.
general population, inhalative, Long-term - systemic effects: 1,67 mg/m <sup>3</sup> .
Naphthenic acids, zinc salts, CAS: 12001-85-3
Industrial, dermal, Long-term - systemic effects: 3.3 mg/kg bw/d (AF=30).
Industrial, inhalative, Long-term - systemic effects: 1.18 mg/m <sup>3</sup> (AF=75).
general population, inhalative, Long-term - systemic effects: 0.29 mg/m <sup>3</sup> (AF=150).
general population, oral, Long-term - systemic effects: 0.17 ng/kg bw/d (AF=600).
general population, dermal, Long-term - systemic effects: 1.7 mg/kg bw/d (AF=60).
Dilithium tetraborate, CAS: 12007-60-2
Industrial, dermal, Long-term - systemic effects: 333 mg/kg bw/D (AF= 30).
Industrial, inhalative, Long-term - systemic effects: 7.1 mg/m <sup>3</sup> (AF= 12.5).
general population, oral, Long-term - systemic effects: 0.83 mg/kg bw/D (AF= 60).
general population, dermal, Long-term - systemic effects: 166 mg/kg bw/D (AF= 60).
general population, inhalative, Long-term - systemic effects: 1.74 mg/m <sup>3</sup> (AF= 25).

#### PNEC

Substance
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
soil, 15,7 mg/kg dw.
sediment (seawater), 1,93 mg/kg dw.
sediment (freshwater), 19,3 mg/kg dw.
sewage treatment plants (STP), 100 mg/l (AF=100).
seawater, 0,0002 mg/l (AF=10000).
freshwater, 0,002 mg/l (AF=1000).
Naphthenic acids, zinc salts, CAS: 12001-85-3

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019		Page 7 / 17
Version 08. Supersedes version: 07		
	soil, 0.001 mg/kg dw.	
	sediment (seawater), 0.002 mg/kg dw.	
	sediment (freshwater), 0.015 mg/kg dw.	
	sewage treatment plants (STP), 689.7 µg/L (AF= 1).	
	seawater, 0 mg/L (AF= 10000).	
	freshwater, 0.004 mg/L (AF= 1000).	
	Dilithium tetraborate, CAS: 12007-60-2	
	sewage treatment plants (STP), mg/L (AF= 10).	

### 8.2 Exposure controls

**Additional advice on system design** Ensure adequate ventilation on workstation.

**Eye protection** Safety glasses. (EN 166:2001)

**Hand protection** The details concerned are recommendations. Please contact the glove supplier for further information.  
In full contact:  
> 0,4 mm: Butyl rubber, >120 min (EN 374-1/-2/-3).

**Skin protection** light protective clothing

**Other** Avoid contact with eyes and skin.

**Respiratory protection** Not required under normal conditions.

**Thermal hazards** No information available.

**Delimitation and monitoring of the environmental exposition** Comply with applicable environmental regulations limiting discharge to air, water and soil.

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019

Page 8 / 17

Version 08. Supersedes version: 07

### SECTION 9: Physical and chemical properties

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

Form	pasty
Color	light brown
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	ca. 0,9 (DIN 51757) (25°C / 77,0°F)
Bulk density [kg/m³]	not applicable
Solubility in water	virtually insoluble
Partition coefficient [n-octanol/water]	No information available.
Viscosity	NLGI 3-4
Relative vapour density determined in air	not applicable
Evaporation speed	not applicable
Melting point [°C]	No information available.
Autoignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.

#### 9.2 Other information

none

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No dangerous reactions known if used as directed.

#### 10.2 Chemical stability

The product is stable under standard conditions.



# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019  
Version 08. Supersedes version: 07

Page 9 / 17

### 10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

If product is heated above decomposition temperature toxic vapours may be released.

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

Strong oxidizing agent.

Acids

Strong basic compounds

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019

Page 10 / 17

Version 08. Supersedes version: 07

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Product	
inhalative, Based on the available information, the classification criteria are not fulfilled.:	
dermal, Based on the available information, the classification criteria are not fulfilled.:	
oral, Based on the available information, the classification criteria are not fulfilled.:	
Substance	
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9	
LD50, oral, Rat: 3080 mg/kg bw.	
LD50, dermal, Rabbit: > 20 000 mg/kg bw.	
LC50, inhalation (vapour ), Rat: > 2,3 mg/L/4h.	
Naphthenic acids, zinc salts, CAS: 12001-85-3	
LD50, oral, Rat: > 2000 mg/kg.	
Dilithium tetraborate, CAS: 12007-60-2	
LD50, dermal, Rat: > 2000 mg/kg bw.	
LD50, oral, Rat: 300 - 2000 mg/kg bw.	

##### Serious eye damage/irritation

Based on the available information, the classification criteria are not fulfilled.

##### Skin corrosion/irritation

Based on the available information, the classification criteria are not fulfilled.

##### Respiratory or skin sensitisation

Toxicological data of complete product are not available.  
May cause an allergic skin reaction.  
Calculation method

##### Specific target organ toxicity — single exposure

Based on the available information, the classification criteria are not fulfilled.

##### Specific target organ toxicity — repeated exposure

Based on the available information, the classification criteria are not fulfilled.

##### Mutagenicity

Based on the available information, the classification criteria are not fulfilled.

##### Reproduction toxicity

Based on the available information, the classification criteria are not fulfilled.  
SCL: >= 3.8% Rep.2 (CAS 12007-60-2)

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019

Page 11 / 17

Version 08. Supersedes version: 07

**Carcinogenicity**

Based on the available information, the classification criteria are not fulfilled.

**Aspiration hazard**

Based on the available information, the classification criteria are not fulfilled.

**General remarks**

Toxicological data of complete product are not available.  
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists.

### SECTION 12: Ecological information

#### 12.1 Toxicity

Product
Based on the available information, the classification criteria are not fulfilled.:
Substance
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
LL50, (96h), Oncorhynchus mykiss: 4,5 mg/l.
Naphthenic acids, zinc salts, CAS: 12001-85-3
EC50, (72h), Algae: 4 mg/L.
EL50, (48h), Daphnia magna: 35 mg/L.
LL50, (96h), fish: 100 mg/L.
Dilithium tetraborate, CAS: 12007-60-2
LC50, (96h), fish: 100 mg/L.
EC50, (48h), Daphnia magna: 100 mg/L.
IC50, (72h), Algae: 100 mg/L.
NOEC, (72h), Algae: 32 mg/L.

#### 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	not determined
<b>Behaviour in sewage plant</b>	not determined
<b>Biological degradability</b>	not determined

#### 12.3 Bioaccumulative potential

No information available.

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019  
Version 08. Supersedes version: 07

Page 12 / 17

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Other adverse effects

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.  
Do not discharge product unmonitored into the environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material c It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

In according to RoHS!  
Disposal in an incineration plant in accordance with the regulations of the local authorities.  
For recycling, consult manufacturer.

**Waste no. (recommended)** 120112\* spent waxes and fats

#### Contaminated packaging

Uncontaminated packaging may be taken for recycling.  
Uncontaminated packaging may be reused.

**Waste no. (recommended)** 150110\*

## SECTION 14: Transport information

### 14.1 UN number

**Transport by land according to ADR/RID** not applicable

**Inland navigation (ADN)** not applicable

**Marine transport in accordance with IMDG** not applicable

**Air transport in accordance with IATA** not applicable

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019  
Version 08. Supersedes version: 07

Page 13 / 17

### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

### 14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019  
Version 08. Supersedes version: 07

Page 14 / 17

### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

## SECTION 15: Regulatory information

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

**EEC-REGULATIONS** 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

**TRANSPORT-NATIONAL REGULATIONS (GB):** ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019) EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- Observe employment restrictions for people no

- VOC (2010/75/CE) 0 %

### 15.2 Chemical safety assessment

not applicable

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019

Page 15 / 17

Version 08. Supersedes version: 07

### SECTION 16: Other information

#### 16.1 Hazard statements (SECTION 03)

H361d Suspected of damaging the unborn child.  
H302 Harmful if swallowed.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.  
H315 Causes skin irritation.

# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019  
Version 08. Supersedes version: 07

Page 16 / 17

### 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ATE = acute toxicity estimate  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
LC0 = lethal concentration, 0%  
LOAEL = lowest-observed-adverse-effect level  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
NOAEL = No Observed Adverse Effect Level  
NOEC = No Observed Effect Concentration  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
STP = Sewage Treatment Plant  
TLV®/TWA = Threshold limit value – time-weighted average  
TLV®STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative



# Arcanol VIB3

## Safety Data Sheet 1907/2006/EC - REACH (GB)

Date printed 06.09.2019, Revision 06.09.2019  
Version 08. Supersedes version: 07

Page 17 / 17

### 16.3 Other information

#### Classification procedure

Skin Sens. 1B: H317 May cause an allergic skin reaction. (Calculation method)  
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

#### Modified position

SECTION 3 been added: Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts

SECTION 2 been added: Naphthenic acids, zinc salts

SECTION 2 been added: H412 Harmful to aquatic life with long lasting effects.

SECTION 2 been added: Aquatic Chronic 3

SECTION 2 been added: H317 May cause an allergic skin reaction.

SECTION 2 been added: WARNING

SECTION 2 been added: exclamation mark

SECTION 2 been added: Skin Sens. 1B