Arcanol LOAD150

Safety Data Sheet (UK REACH) (GB)

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

1.1 Product identifier

Arcanol LOAD150
UFI: A795-U5WQ-E20M-P8J8

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

Address enquiries to

Technical information support.is@schaeffler.com

Safety Data Sheet sdb@chemiebuero.de (No dispatch of safety data sheets)
Safety data sheets are available from the supplier.

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 (GB) CLP]

Eye Irrit. 2: H319 Causes serious eye irritation.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms

Signal word WARNING

Hazard statements H319 Causes serious eye irritation.

Precautionary statements P280 Wear protective gloves / 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.
P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling Contains: Zinc naphthenate, 2,5-bis(octyldithio)-1,3,4-thiadiazole.
EUH208 May produce an allergic reaction.

2.3 Other hazards

Physico-chemical hazards Combustible.

Human health dangers High Pressure Applications. Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency.

Environmental hazards Does not contain any PBT or vPvB substances.

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

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
1 - 2.9	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene
	CAS: 68411-46-1, EINECS/ELINCS: 270-128-1, Reg-No.: 01-2119491299-23-XXXX
	GHS/CLP: Repr. 2: H361f
1 - 2.9	Lithium tetrahydroxyborate
	CAS: 12006-96-1, EINECS/ELINCS: 818-953-3, Reg-No.: 01-2120772309-47
	GHS/CLP: Acute Tox. 4: H302 - Eye Dam. 1: H318 - Repr. 2: H361d
	SCL [%]: >= 7.6: Repr. 2: H361
1 - 1.49	Zinc naphthenate
	CAS: 84418-50-8, EINECS/ELINCS: 282-762-6, Reg-No.: 01-2119988500-34-XXXX
	GHS/CLP: Skin Sens. 1B: H317 - Eye Irrit. 2: H319 - Aquatic Chronic 2: H411
0 - < 0.09	2,5-bis(octyldithio)-1,3,4-thiadiazole
	CAS: 13539-13-4, EINECS/ELINCS: 236-912-2
	GHS/CLP: Skin Irrit. 2: H315 - Skin Sens. 1A: H317 - Acute Tox. 4: H332 - Aquatic Chronic 4: H413

Comment on component parts

A lubricating grease containing highly-refined mineral oils and additives.
Contains less than 3% w/w DMSO-extract (only for mineral oils)
The product does not contain a component of the PRTR register (Pollutant Release and Transfer Register).
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

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to your doctor.
Note: High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing

Foam.
Dry powder.
Water spray jet.
Carbon dioxide.

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.

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.
Prevent spread over a wide area (e.g. by containment or oil barriers).

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

The product is combustible.

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

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Do not store together with oxidizing agents.

Keep container tightly closed.
Keep away from frost.
Keep in a cool place. Store in a dry place.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

not relevant

Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

not relevant

DNEL

	Substance
	Zinc naphthenate, CAS: 84418-50-8
	Industrial, dermal, Long-term - systemic effects, 1.4 mg/kg bw/d (AF= 50)
	Industrial, inhalative, Long-term - systemic effects, 4.93 mg/m³ (AF= 12.5)
	general population, dermal, Long-term - systemic effects, 0.5 mg/kg bw/d (AF= 100)
	general population, inhalative, Long-term - systemic effects, 0.87 mg/m³ (AF= 25)
	general population, oral, Long-term - systemic effects, 0.5 mg/kg bw/d (AF= 100)
	Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2
	Industrial, dermal, Long-term - systemic effects, 333 mg/kg bw/d (AF= 30)
	Industrial, inhalative, Long-term - systemic effects, 7.1 mg/m³ (AF= 12.5)
	Industrial, inhalative, Acute - systemic effects, 7.1 mg/m³ (AF= 12.5)
	general population, oral, Long-term - systemic effects, 0.83 mg/kg bw/d (AF= 60)
	general population, inhalative, Long-term - systemic effects, 1.74 mg/m³ (AF= 25)
	general population, dermal, Long-term - systemic effects, 166 mg/kg bw/d (AF= 60)
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	Industrial, inhalative, Long-term - systemic effects, 0.31 mg/m³ (AF= 50)
	Industrial, dermal, Long-term - systemic effects, 0.44 mg/kg bw/d (AF= 200)
	general population, oral, Long-term - systemic effects, 0.05 mg/kg bw/d (AF= 400)
	general population, inhalative, Long-term - systemic effects, 0.08 mg/m³ (AF= 100)
	general population, dermal, Long-term - systemic effects, 0.22 mg/kg bw/d (AF= 400)

PNEC

	Substance
	Zinc naphthenate, CAS: 84418-50-8
	soil, 35.6 mg/kg dw (AF= 1)
	sediment (seawater), 56.5 mg/kg dw (AF= 1)
	sediment (freshwater), 117.8 mg/kg dw (AF= 1)
	sewage treatment plants (STP), 52 µg/L (AF= 100)
	seawater, 6.1 µg/L (AF= 1)
	freshwater, 20.6 µg/L (AF= 1)
	Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2
	sewage treatment plants (STP), 44 mg/L (AF= 10)

	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	oral (food), 833 µg/kg food
	soil, 17.6 mg/kg soil dw
	sediment (seawater), 44.6 µg/kg sediment dw
	sediment (freshwater), 446 µg/kg sediment dw
	sewage treatment plants (STP), 10 mg/L
	seawater, 3.38 µg/L
	freshwater, 33.8 µg/L

8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.
General exposure limit for oil mist should be noted.
Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

Eye protection
If there is a risk of splashing:
Safety glasses. (EN 166:2001)

Hand protection
The details concerned are recommendations. Please contact the glove supplier for further information.
> 0.4 mm Butyl rubber, >120 min (EN 374-1/-2/-3).

Skin protection
not applicable

Other
Avoid contact with eyes and skin.

Respiratory protection
Breathing apparatus in the event of aerosol or mist formation.
Short term: filter apparatus, combination filter A-P1. (DIN EN 14387)

Thermal hazards
not applicable

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Semi-solid
Form	pasty
Color	red
Odor	characteristic
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	> 200 (392°F)
Flammability	No information available.
Lower explosion limit	ca. 1 Vol.%
Upper explosion limit	ca. 10 Vol.%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	< 0.0005 (20°C. 68°F)
Density [g/cm³]	1.0 (DIN 51757) (15 °C / 59,0 °F)
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	virtually insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	> 6
Kinematic viscosity	not relevant
Relative vapour density	> 1
Evaporation speed	not relevant
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	> 320 (608°F)
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

Drop point: > 240 (464°F)

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

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.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

	Product
	LD50, oral, Rat, > 5000 mg/kg bw

	Substance
	Zinc naphthenate, CAS: 84418-50-8
	LD50, oral, Rat, > 2000 mg/kg bw
	Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2
	LD50, oral, Rat, 500 mg/kg bw
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	LD50, oral, Rat, >5000 mg/kg bw
	NOAEL, oral, Rat, 25 mg/kg bw/day

Acute dermal toxicity

	Product
	LD50, dermal, Rabbit, > 5000 mg/kg bw

	Substance
	Zinc naphthenate, CAS: 84418-50-8
	LD50, dermal, Rat, > 2000 mg/kg bw
	Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2
	LD50, dermal, > 2000 mg/kg bw
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	LD50, dermal, Rat, >2000 mg/kg bw

Acute inhalational toxicity

	Substance
	Zinc naphthenate, CAS: 84418-50-8
	LC50, inhalative, Rat, > 0.42 mg/l/4h

Serious eye damage/irritation

Toxicological data of complete product are not available.
Irritant
Calculation method

Skin corrosion/irritation

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

Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled. Non-sensitizing. On basis of test data
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	No mutagenous properties. Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Toxicological data of complete product are not available. No classification due to substance-specific concentration limits.
- Fertility	No information available.

- Development

	Substance
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	NOAEL, parenteral, 75 mg/kg bw/d, OECD 422

Carcinogenicity	No cancerogenic properties known 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.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties	No information available.
11.2.2 Other information	none

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SECTION 12: Ecological information

12.1 Toxicity

	Product
	LL50, Algae, > 100 mg/L
	LL50, Daphnia magna, > 100 mg/L
	LL50, fish, > 100 mg/L

	Substance
	Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2
	EC50, (48h), Daphnia magna, > 100 mg/L
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	LC50, (96h), fish, 100 mg/L
	EC50, (72h), Invertebrates, 100 mg/L
	EC50, (48h), Invertebrates, 51 mg/L
	EL10, (21d), Invertebrates, 1.69 mg/L

12.2 Persistence and degradability

Behaviour in environment compartments

Behaviour in sewage plant The product floats on the (waste) water.

Biological degradability The product is not readily biodegradable.

12.3 Bioaccumulative potential

Contains components with the potential to bioaccumulate.

12.4 Mobility in soil

Product is immobilized by adsorption to soil particles.

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

The product is insoluble in water.
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. 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

Disposal in an incineration plant in accordance with the regulations of the local authorities.
In according to RoHS!

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* packaging containing residues of or contaminated by hazardous substances
150102

SECTION 14: Transport information

14.1 UN number or ID 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

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

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 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex I (REACH)	The product is not subject to Annex I restrictions.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances ≥ 0.1% that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains ≥ 0.1% of substances with the following restrictions. 3, 75 According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is subject to the following restrictions. 3
TRANSPORT-	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	0 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H413 May cause long lasting harmful effects to aquatic life.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H361f Suspected of damaging fertility.
H411 Toxic to aquatic life with long lasting effects.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.

H361d Suspected of damaging the unborn child.
H318 Causes serious eye damage.
H302 Harmful if swallowed.

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
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
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
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
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

16.3 Other information

Classification procedure Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)

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Modified position	SECTION 2 been added: 2,5-bis(octyldithio)-1,3,4-thiadiazole SECTION 3 been added: 2,5-bis(octyldithio)-1,3,4-thiadiazole SECTION 3 been added: Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene