

Arcanol TEMP110

Safety Data Sheet (SDS) according to OSHA-GHS (29CFR1910.1200HCS2012) (US)

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

1.1 Product identifier

Arcanol TEMP110

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 Group USA Inc.
308 Springhill Farm Road
Fort Mill, South Carolina 29715 / USA
Phone +1 803 548 8500
Homepage www.schaeffler.us
E-mail info.usa@schaeffler.com

Address enquiries to

Technical information

support.is@schaeffler.com

Safety Data Sheet

sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body

US Chemtrec: +1 800 424-9300 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

No classification.

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2.2 Label elements

The product is classified as hazardous in accordance to OSHA Standard 29 CFR 1910.1200 (HCS 2012)

Hazard pictograms None

Signal word None

Hazard statements None

Precautionary statements None

Special labelling EUH210 Safety data sheet available on request.

Contains: Polysulfides, di-tert-dodecyl. EUH208 May produce an allergic reaction.

2.3 Other hazards

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

This product is classified as non-hazardous in accordance to OSHA Standard 29 CFR 1910.1200.

SECTION 3: Composition / Information on ingredients

3.1 Substances

Not applicable

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3.2 Mixtures

The product is a mixture.

Range [%]	Substance
> 10	Mineral oil - <3% DMSO extract
	CAS: Trade secret
2.5 - < 5	Dilithium adipate
	CAS: 18621-94-8
1- < 2.5	Molybdenum, Bis(dibutylcarbamodithio)di-oxodioxi-di-, sulfurized
	CAS: 68412-26-0
0.3 - < 1	Polysulfides, di-tert-dodecyl
	CAS: 68425-15-0
0.3 - < 1	Lithium tetrahydroxyborate
	CAS: 12006-96-1/12007-60-2

Comment on component parts

Mineral oil-based mixture with synthetic hydrocarbons (polyalphaolefins).
All chemical substances in this material are included on or exempted from listing on the NZIoC-Inventory.
Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.

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

Irritant effects

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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.
Alcohol-resistant 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

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

Do not eat, drink or smoke when using this product.
Wash hands before breaks and after work.
Use barrier skin cream.
Contaminated work clothing should not be allowed out of the workplace.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

See product use, SECTION 1.2

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (US)

Not applicable

DNEL

Substance
Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2
Industrial, dermal, Long-term - systemic effects, 333 mg/kg bw/d (AF= 30)
Industrial, inhalative, Acute - systemic effects, 7.1 mg/m ³ (AF= 12.5)
Industrial, inhalative, Long-term - systemic effects, 7.1 mg/m ³ (AF= 12.5)
general population, inhalative, Long-term - systemic effects, 1.74 mg/m ³ (AF= 25)
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)
Dilithium adipate, CAS: 18621-94-8
Industrial, dermal, Long-term - local effects, 0.046 mg/cm ² (AF=5)
general population, dermal, Long-term - local effects, 0.023 mg/cm ² (AF=10)

PNEC

Substance
Polysulfides, di-tert-dodecyl, CAS: 68425-15-0
sediment (seawater), 385 µg/kg sediment dw
oral (food), 66.7 mg/kg food
sediment (freshwater), 3.85 mg/kg sediment dw
sewage treatment plants (STP), 1 g/L
Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2
sewage treatment plants (STP), 44 mg/L (AF= 10)
Dilithium adipate, CAS: 18621-94-8
freshwater, 0.002 mg/L (AF=10 000)
freshwater, 0.023 mg/L (AF=1000)

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8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. General 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	Safety glasses. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. ca. 0.4 mm: Nitrile rubber, >480 min (EN 374-1/-2/-3).
Skin protection	light protective clothing Avoid contact with eyes and skin.
Respiratory protection	Not required under normal conditions. Breathing apparatus in the event of aerosol or mist formation.
Thermal hazards	Not applicable
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	pasty
Color	yellow
Odor	characteristic
Odor threshold	Not applicable
pH-value	Not applicable
pH-value [1%]	Not applicable
Boiling point [°C]	No information available.
Flash point [°C]	> 220 / > 428 °F
Flammability [°C]	No information available.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Oxidizing properties	No
Vapor pressure/gas pressure [kPa]	No information available.
Density [g/cm³]	0.89 (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]	No information available.
Kinematic viscosity	Not applicable
Relative vapour density	Not applicable
Evaporation speed	Not applicable
Melting point [°C]	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

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10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Oxidizing agent

10.6 Hazardous decomposition products

No information available.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Product	oral, Based on the information available, the classification criteria have not been fulfilled.
Substance	
Polysulfides, di-tert-dodecyl, CAS: 68425-15-0	
LD50, oral, Rat, ca. 20000 mg/kg bw (ECHA)	
Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2	
LD50, oral, Rat, 500 mg/kg bw	
Dilithium adipate, CAS: 18621-94-8	
LD50, oral, Rat, 500 mg/kg bw	

Acute dermal toxicity

Product	dermal, Based on the information available, the classification criteria have not been fulfilled.
Substance	
Polysulfides, di-tert-dodecyl, CAS: 68425-15-0	
LD0, dermal, Rat, 2000 mg/kg bw	
NOAEL, oral, Rat, 1000 mg/kg bw/day	
Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2	
LD50, dermal, > 2000 mg/kg bw	

Acute inhalational toxicity

Product	inhalative, Based on the information available, the classification criteria have not been fulfilled.
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Serious eye damage/irritation

Based on the information available, the classification criteria have not been fulfilled.

Substance	
Polysulfides, di-tert-dodecyl, CAS: 68425-15-0	
no adverse effect observed	

Skin corrosion/irritation

Based on the information available, the classification criteria have not been fulfilled.

Substance	
Polysulfides, di-tert-dodecyl, CAS: 68425-15-0	
no adverse effect observed	

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Respiratory or skin sensitisation	May produce an allergic reaction. Calculation method
Specific target organ toxicity — single exposure	Based on the information available, the classification criteria have not been fulfilled.
Specific target organ toxicity — repeated exposure	Based on the information available, the classification criteria have not been fulfilled.
Mutagenicity	Based on the information available, the classification criteria have not been fulfilled.
Reproduction toxicity	Based on the information available, the classification criteria have not been fulfilled.
Carcinogenicity	Based on the information available, the classification criteria have not been fulfilled.
Aspiration hazard	Based on the information available, the classification criteria have not been fulfilled.

General remarks

Toxicological data of complete product are not available.

SECTION 12: Ecological information

12.1 Toxicity

	Product
	Based on the information available, the classification criteria have not been fulfilled.
	Substance
	Polysulfides, di-tert-dodecyl, CAS: 68425-15-0
	NOEC, (72h), Algae, 80 µg/L
	NOEC, (48h), Invertebrates, 100 µg/L
	Lithium tetrahydroxyborate, CAS: 12006-96-1/12007-60-2
	EC50, (48h), Daphnia magna, > 100 mg/L
	Dilithium adipate, CAS: 18621-94-8
	LC50, (96h), fish, > 100 mg/L

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12.2 Persistence and degradability

Behaviour in environment compartments

Behaviour in sewage plant Not determined

Biological degradability Not determined

12.3 Bioaccumulative potential

No information available.

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 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Disposal in an incineration plant in accordance with the regulations of the local authorities.

In according to RoHS!

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Uncontaminated packaging may be reused.

RCRA Hazard Class (40CFR 261)

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities.

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SECTION 14: Transport

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

DOT Road Shipment Information (49 CFR) 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"

DOT Road Shipment Information (49 CFR) NOT CLASSIFIED AS "DANGEROUS GOODS"

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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

DOT Road Shipment Information (49 CFR) 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

DOT Road Shipment Information (49 CFR) Not applicable

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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

DOT Road Shipment Information (49 CFR) 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

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SECTION 15: Regulatory information

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

US Regulations

National regulations 29 CFR 1910.1200-HCS 2012, OSHA-PEL, ACGIH-TLV, NTP, IARC, SARA Title III, NFPA, TSCA, California - Prop. 65

- SARA, 302 This product does not contain any ingredients regulated under this list.

- SARA, 311 This product does not contain any ingredients regulated under this list.

- SARA, 313 This product does not contain any ingredients regulated under this list.

- CA Proposition 65 No chemical substances in this material are named on the California P65 list.

- TSCA All chemical substances in this material are included on or exempted from listing on the TSCA Inventory.

- FDA Not determined

American Conference of Governmental Industrial Hygienists - ACGIH Ingredients not listed as carcinogens.

International Agency for Research on Cancer IARC Ingredients not listed as carcinogens.

National Toxicology Program - NTP Not applicable

HAP-VOC 0%

Transport-regulations DOT-Classification, ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2022)

15.2 Chemical safety assessment

Not applicable

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SECTION 16: Other information

16.1 Abbreviations and acronyms:

ACGIH = American Conference of Governmental Industrial Hygienists;
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;
CAS = Chemical Abstracts Service;
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act;
CFR = Code of Federal Regulations;
CPR = Controlled Products Regulations;
DMEL = Derived Minimum Effect Level;
DNEL = Derived No Effect Level;
DOT = Department of Transportation;
EC50 = Median effective concentration;
EPA = Environmental Protection Agency;
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;
IARC = International Agency of Research on Cancer;
IATA = International Air Transport Association;
TSCA = Toxic Substance Control Act;
HMIS = Hazardous Materials Identification System;
NFPA = National Fire Protection Association;
NIOSH = National Institute for Occupational Safety and Health;
OSHA = Occupational Safety and Health Administration;
LC50 = Lethal concentration, 50%;
LD50 = Median lethal dose, 50%;
MARPOL = International Convention for the Prevention of Marine Pollution from Ships;
PBT = Persistent, Bioaccumulative and Toxic substance;
PNEC = Predicted No-Effect Concentration;
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals;
SARA = Superfund Amendments and Reauthorization Act;
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;

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16.2 Ratings

NFPA Ratings

HMIS Ratings

PERSONAL PROTECTION:

- A - Safety Glasses
- B - Safety Glasses and Gloves
- C - Safety Glasses, Gloves and Protection Apron
- D - Face Shield, Gloves and Protection Apron
- E - Safety Glasses, Gloves and Dust Respirator
- F - Safety Glasses, Gloves, Protection Apron and Dust Respirator
- G - Safety Glasses, Gloves and Vapor Respirator.
- H - Splash Goggles, Gloves, Protection Apron and Vapor Respirator.
- I - Safety Glasses, Gloves, Dust Respirator and Vapor Respirator.
- J - Splash Goggles, Gloves, Protection Apron, Dust Respirator and Vapor Respirator.

- K - Airline Mask or Hood, Gloves, Full Suit and Boots.
- X - Personal protection rating to be supplied by user depending on use conditions



TOP, FLAMMABILITY: 1 - Slight Hazard
 LEFT, HEALTH: 0 - Minimal Hazard
 RIGHT, REACTIVITY: 0 - Minimal Hazard
 BOTTOM, SPECIAL NOTICE: Not applicable

HEALTH	0	0 - Minimal Hazard
FLAMMABILITY	1	1 - Slight Hazard
PHYSICAL HAZARD	0	0 - Minimal Hazard
PERSONAL PROTECTION	X	X - Personal protection rating to be supplied by user depending on use conditions

Modified position

- SECTION 3 been added: Molybdenum, Bis(dibutylcarbamodithio)di-oxodioxo-di-, sulfurized
- SECTION 3 been added: Polysulfides, di-tert-dodecyl
- SECTION 3 been added: Lithium tetrahydroxyborate
- SECTION 2 been added: EUH208 May produce an allergic reaction.
- SECTION 11 been added: May produce an allergic reaction.