

arcanol LOAD150

Safety Data Sheet (Australia)

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

1.1 Product identifier

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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 Australia
Ground Floor
Suite 3, 13 B Narabang Way
2085 Belrose NSW / AUSTRALIA
Phone +61 2 8977 1058; Mobile +61 (0) 418 899 194
E-mail Mark.Ciechanowicz@schaeffler.com

Manufacturer

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

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

Eye Irrit. 2: H319 Causes serious eye irritation.

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2.2 Label elements

The product is required to be labelled in accordance with Model Work Health and Safety Regulations (WHS) Australia.

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.

2.3 Other hazards

Used grease may contain harmful impurities.

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.
Frequent persistent contact with the skin can cause skin irritation.

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

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3.2 Mixtures

The product is a mixture.

Range [%]	Substance
1 - 2.9	Dilithium tetraborate
	CAS: 12007-60-2
	GHS/CLP: Eye Dam. 1: H318 - Acute Tox. 4: H302 - Repr. 2: H361d SCL [%]: >= 3,8: Repr. 2: H361
1 - 1.49	Naphthenic acids, zinc salts
	CAS: 12001-85-3 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 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)
 All chemical substances in this material are included on or exempted from listing on the AICS 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

None known.

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4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Forward this sheet to the 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 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.

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.

Hazchem Code not applicable

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).

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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.
Avoid contact with eyes and skin. Use personal protective equipment.
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.
Take off contaminated clothing and wash before reuse.

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

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SECTION 8: Exposure controls / personal protection	

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (AU)

not applicable

DNEL

Substance
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 ³ (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 ³ (AF= 25)

PNEC

Substance
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. General exposure limit for oil mist should be noted.
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. > 0.35 mm Neoprene, >240 min (EN 374-1/-2/-3). > 0.35 mm Nitrile rubber, >240 min (EN 374-1/-2/-3). PVC > 0.35 mm, >240 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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	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 (solid, gas) [°C]	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	1.0 (DIN 51757)(15 °C / 59 °F)
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 applicable
Relative vapour density	> 1
Evaporation speed	not applicable
Melting point [°C]	> 240 / 464°F
Auto-ignition temperature	> 320 / 608°F
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.

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.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Product	
LD50, oral, Rat, > 5000 mg/kg bw	
Substance	
Dilithium tetraborate, CAS: 12007-60-2	
LD50, oral, Rat, 300 - 2000 mg/kg bw	
Naphthenic acids, zinc salts, CAS: 12001-85-3	
LD50, oral, Rat, >2000 mg/kg bw (OECD 423)	

Acute dermal toxicity

Product	
LD50, dermal, Rabbit, > 5000 mg/kg bw	
Substance	
Dilithium tetraborate, CAS: 12007-60-2	
LD50, dermal, Rat, > 2000 mg/kg bw	

Acute inhalational toxicity

Serious eye damage/irritation

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

Substance	
Dilithium tetraborate, CAS: 12007-60-2	
Causes serious eye damage.	
Naphthenic acids, zinc salts, CAS: 12001-85-3	
IVIS, cutan, Human, 19 (OECD 492)	

Skin corrosion/irritation

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

Substance	
Dilithium tetraborate, CAS: 12007-60-2	
no adverse effect observed	
Naphthenic acids, zinc salts, CAS: 12001-85-3	
no adverse effect observed	

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Respiratory or skin sensitisation

Experimental data has shown that the concentration of potentially sensitising components present in this product does not induce skin sensitisation.
No classification due to toxicological investigations.

Substance
Dilithium tetraborate, CAS: 12007-60-2
non-sensitizing
Naphthenic acids, zinc salts, CAS: 12001-85-3
IC50, cutan, Cell culture, $\geq 82 \mu\text{g/mL}$ (OECD 442D)

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.

Substance
Naphthenic acids, zinc salts, CAS: 12001-85-3
in vitro, negativ

Reproduction toxicity

Toxicological data of complete product are not available.
SCL: > 7.6% Rep. 2 (CAS 12006-96-1/12007-60-2)
No classification due to substance-specific concentration limits.

Substance
Dilithium tetraborate, CAS: 12007-60-2
NOAEL, oral, Rat, 50 mg/kg bw/d (Effect on developmental toxicity)
NOAEL, oral, Rat, 150 mg/kg bw/d (Effect on fertility), no adverse effect observed

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

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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.

Remarks: Used grease may contain harmful impurities that have accumulated during use. The concentration of such harmful impurities will depend on use and they may present risks to health and the environment on disposal. ALL used grease should be handled with caution and skin contact avoided as far as possible.

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
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
Naphthenic acids, zinc salts, CAS: 12001-85-3
EL50, (72h), Pseudokirchneriella subcapitata, 4 mg/L (OECD 201)
EL50, (48h), Daphnia magna, 35 mg/L (OECD 202)
LL50, (96h), Cyprinus carpio, >100 mg/L (OECD 203)

12.2 Persistence and degradability

Behaviour in environment compartments not determined

Behaviour in sewage plant not determined

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.

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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.
 Product will float on water.
 Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

Restrictions	There are no product-specific restrictions. However, state and local disposal regulations may apply. Note that state and local disposal regulations may differ from federal disposal regulations.
Disposal method	Disposal of this product must comply with the requirements of state and local disposal regulations.
Contaminated packaging	Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.

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

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG) not applicable

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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"

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG) not applicable

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

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG) not applicable

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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

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG) 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

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG) 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

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)	This Standard does not apply to a poison in any of the following products: LUBRICANTS in preparations that provide a lubricating action between machinery parts, except soluble oils and solvent-deposited lubricating agents.
Applicable prohibitions and notifications/licensing requirements	not applicable
Agricultural and Veterinary Chemicals Act	not applicable
Listing in the Australian Inventory of Chemical Substances (AICS)	All chemical substances in this material are included on or exempted from listing on the AICS Inventory.
Additional information	not applicable

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SECTION 16: Other information

16.1 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
 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

16.2 Other information

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

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Modified position

SECTION 2 deleted: Naphthenic acids, zinc salts

SECTION 3 deleted:

SECTION 3 deleted: Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts

SECTION 2 deleted: P302+P352 IF ON SKIN: Wash with plenty of water / soap.

SECTION 2 deleted: P273 Avoid release to the environment.

SECTION 2 deleted:

SECTION 2 deleted: Skin Sens. 1

SECTION 2 deleted: P333+P313 If skin irritation or rash occurs: Get medical advice / attention.

SECTION 2 deleted: P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

SECTION 2 been added: Frequent persistent contact with the skin can cause skin irritation.

SECTION 2 been added: Used grease may contain harmful impurities.

SECTION 2 deleted: H317 May cause an allergic skin reaction.

SECTION 3 been added: A lubricating grease containing highly-refined mineral oils and additives.

SECTION 7 been added: Avoid contact with eyes and skin. Use personal protective equipment.

SECTION 7 been added: Take off contaminated clothing and wash before reuse.

SECTION 11 been added: Remarks: Used grease may contain harmful impurities that have accumulated during use. The concentration of such harmful impurities will depend on use and they may present risks to health and the environment on disposal. ALL used grease should be handled with caution and skin contact avoided as far as possible.

SECTION 11 deleted: Toxicological data of complete product are not available.

SECTION 11 deleted: May cause an allergic skin reaction.

SECTION 11 deleted: Calculation method

SECTION 11 been added: No classification due to toxicological investigations.

SECTION 12 been added: Product will float on water.