

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

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

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 - GHS 7) Australia.

Hazard pictograms**Signal word**

WARNING

Contains:

Dilithium tetraborate (1 - 2.9%)

Naphthenic acids, zinc salts (1 - 1.49%)

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/regional/national/international regulation.

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.

Contains no ingredients with endocrine-disrupting properties ($\geq 0,1\%$).

Environmental hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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 - 2,9	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene
	CAS: 68411-46-1
	GHS/CLP: Repr. 2: H361f - Aquatic Chronic 3: H412
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

For full text of H-statements: see SECTION 16.
All chemical substances in this material are included on or exempted from listing on the IECSC Inventory.
A lubricating grease containing highly-refined mineral oils and additives.

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

Allergic reactions

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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.
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

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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, inhalative, Long-term - systemic effects, 1.74 mg/m ³ (AF= 25)
general population, dermal, Long-term - systemic effects, 166 mg/kg bw/D (AF= 60)
general population, oral, Long-term - systemic effects, 0.83 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/m ³ (AF= 50)
Industrial, dermal, Long-term - systemic effects, 0,44 mg/kg bw/d (AF= 200)
general population, inhalative, Long-term - systemic effects, 0,08 mg/m ³ (AF= 100)
general population, dermal, Long-term - systemic effects, 0,22 mg/kg bw/d (AF= 400)
general population, oral, Long-term - systemic effects, 0,05 mg/kg bw/d (AF= 400)

PNEC

Substance
Dilithium tetraborate, CAS: 12007-60-2
sewage treatment plants (STP), 44 mg/L
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
freshwater, 33.8 µg/L
seawater, 3.38 µg/L
sewage treatment plants (STP), 10 mg/L
sediment (freshwater), 446 µg/kg sediment dw
sediment (seawater), 44.6 µg/kg sediment dw
soil, 17.6 mg/kg soil dw
oral (food), 833 µg/kg food

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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 Neoprene, >240 min (EN 374-1/-2/-3). > 0,4 mm Nitrile rubber, >240 min (EN 374-1/-2/-3).
Skin protection	not applicable
Other	Avoid contact with eyes and skin.
Respiratory protection	Not required under normal conditions. 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	liquid
Form	pasty
Color	red
Odor	characteristic
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point or initial boiling point and boiling range [°C]	No information available.
Flash point [°C]	> 200 (392°F)
Flammability	Combustible Not highly flammable.
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 (log value)	> 6
Kinematic viscosity	not applicable
Relative vapour density	> 1
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)

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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.

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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)
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
Dilithium tetraborate, CAS: 12007-60-2
LD50, dermal, Rat, > 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

Skin corrosion/irritation

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

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

Serious eye damage/irritation

Irritant
Based on the available information, the classification criteria are fulfilled.
Calculation method

Substance

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

Respiratory or skin sensitisation

Non-sensitizing.
Based on the available information, the classification criteria are not fulfilled.
On basis of test data

	Substance
	Dilithium tetraborate, CAS: 12007-60-2
	dermal, non-sensitizing
	Naphthenic acids, zinc salts, CAS: 12001-85-3
	IC50, cutan, Cell culture, ≥82 µg/mL (OECD 442D)

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

Carcinogenicity

No cancerogenic properties known
Based on the available information, the classification criteria are not fulfilled.

Reproduction toxicity

No classification due to substance-specific concentration limits.
Based on the available information, the classification criteria are not fulfilled.

- Fertility

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

- Development

	Substance
	Dilithium tetraborate, CAS: 12007-60-2
	NOAEL, oral, Rat, 50 mg/kg bw/d (Effect on developmental toxicity)
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	NOAEL, parenteral, 75 mg/kg bw/d, OECD 422

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**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.

	Substance
	Dilithium tetraborate, CAS: 12007-60-2
	NOAEL, oral, Rat, 150 mg/kg bw/day

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
	LL50, Fish, > 100 mg/L
	LL50, Daphnia magna, > 100 mg/L
	LL50, Algae, > 100 mg/L

	Substance
	Dilithium tetraborate, CAS: 12007-60-2
	LC50, (96h), Fish, 100 mg/L
	EC50, (48h), Daphnia magna, 100 mg/L
	EC50, (72h), Algae, 100 mg/L
	NOEC, (72h), Algae, 32 mg/L
	Naphthenic acids, zinc salts, CAS: 12001-85-3
	EL50, (48h), Daphnia magna, 35 mg/L (OECD 202)
	EL50, (72h), Pseudokirchneriella subcapitata, 4 mg/L (OECD 201)
	LL50, (96h), Cyprinus carpio, >100 mg/L (OECD 203)
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	LC50, (96h), Fish, 100 mg/L
	EC50, (48h), Invertebrates, 51 mg/L
	EC50, (72h), Invertebrates, 100 mg/L
	EL10, (21d), Invertebrates, 1.69 mg/L

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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.

	Substance
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, CAS: 68411-46-1
	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

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

The product is insoluble in 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.

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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

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

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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

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

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

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

SECTION 15: Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) not applicable

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 ingredients are listed.

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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