

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

SRS Wiolan HG 68

Revision date: 01.07.2023

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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**Use of the substance/mixture**

Hydraulic fluids

Uses advised against

none

1.3. Details of the supplier of the safety data sheet

Company name: SRS Schmierstoff Vertrieb GmbH
Street: Neuenkirchener Straße 8
Place: D-48497 Salzbergen
Telephone: 05976 - 945-0
Responsible Department: Abt. Produktsicherheit: info.reach@srs-oil.de

1.4. Emergency telephone number:

Gift-Informationszentrum Nord (Göttingen)
Telefon 0551-19240

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements**Regulation (EC) No 1272/2008****Special labelling of certain mixtures**

EUH210 Safety data sheet available on request.

2.3. Other hazards

This mixture contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.

For information or further instructions, see also section 11 or 12.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity
	EC No Index No REACH No	
	Classification (Regulation (EC) No 1272/2008)	
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)	0.2 - < 0.3 %
	931-384-6 01-2119493620-38	
	Acute Tox. 4, Eye Irrit. 2, Skin Sens. 1B, Aquatic Chronic 2; H302 H319 H317 H411	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
	931-384-6	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)	0.2 - < 0.3 %



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oral: LD50 = > 2000 mg/kg Eye Irrit. 2; H319: >= 50 - 100 Skin Sens. 1B; H317: >= 9,39 - 100

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

If swallowed or in the event of vomiting, risk of entering the lungs.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Sand. Foam. Carbon dioxide (CO₂). Extinguishing powder. In case of major fire and large quantities: Water spray jet. Water mist.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Burning produces heavy smoke.

In case of fire may be liberated: Carbon monoxide (CO). Carbon dioxide (CO₂) Sulphur dioxide (SO₂) Nitrogen oxides (NO_x)

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Ventilate affected area.

Special danger of slipping by leaking/spilling product.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

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For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up**For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Treat the recovered material as prescribed in the section on waste disposal.

Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

No information available.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Wear suitable protective clothing. (See section 8.)

Avoid formation of oil dust.

Advice on protection against fire and explosion

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

Fire class B

Advice on general occupational hygiene

Clean skin thoroughly after working.

Do not put any product-impregnated cleaning rags into your trouser pockets.

Further information on handling

Do not breathe vapour/aerosol.

Avoid contact with eyes and skin.

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Only use containers specifically approved for the substance/product.

Hints on joint storage

Do not store together with: Gas. Explosives. Oxidizing substances. Radioactive substances. Infectious substances

Further information on storage conditions

Temperature control required. Protect from light. Keep container tightly closed. Do not allow contact with air.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL/DMEL values**

CAS No	Name of agent	Exposure route	Effect	Value
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)			

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Worker DNEL, long-term	inhalation	systemic	4,28 mg/m ³
Worker DNEL, long-term	dermal	systemic	12,5 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,09 mg/m ³
Consumer DNEL, long-term	dermal	systemic	6,25 mg/kg bw/day
Consumer DNEL, acute	dermal	local	0.024 mg/cm ²
Consumer DNEL, long-term	oral	systemic	0,25 mg/kg bw/day

PNEC values

CAS No	Name of agent	Value
	Environmental compartment	
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)	
	Freshwater	0,0024 mg/l
	Freshwater (intermittent releases)	0,15 mg/l
	Marine water	0,00024 mg/l
	Freshwater sediment	0,0129 mg/kg
	Marine sediment	0,00129 mg/kg
	Secondary poisoning	10 mg/kg
	Micro-organisms in sewage treatment plants (STP)	24,33 mg/l
	Soil	0,00117 mg/kg

Additional advice on limit values

Air limit values:

Possibility of exposure to Aerosol (Mineral oil)

Limit value (TLV-TWA) = 5 mg/ m³ - Source: ACGIH

Limit value (TLV-STEL) = 10 mg/ m³ - Source: ACGIH

STEL: short-term exposure limits

TLV: Threshold Limiting Value

TWA: time weighted average

ACGIH: American Conference of Governmental Industrial Hygienists

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

Safety goggles with side protection. In case of increased risk add protective face shield. EN 166

Hand protection

Use safety gloves of following materials: NBR (nitrile) / neopren / viton (permeationslevel 5 - 6), Cat. II according to norm EN 374/EN 388.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves



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mentioned above together with the supplier of these gloves.

Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Oil-resistant and hardly inflammable protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-aerosol or mist formation

-Exceeding exposure limit values

Suitable respiratory protection apparatus: Respiratory equipment in case of nebulosity or aerosol: Use a mask with a filter type A2, A2/P2 or ABEK.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Thermal hazards

Wear protective clothing for operations with hot material: heat resistant coveralls (with trousers legs over boots and sleeves over cuffs of gloves), heat resistant heavy duty antiskid boots (e. g. leather).

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:

Colour: -

Odour: -

Melting point/freezing point:

No information available.

Boiling point or initial boiling point and boiling range:

No information available.

Flammability:

No information available.

Lower explosion limits:

No information available.

Upper explosion limits:

No information available.

Flash point:

235 °C DIN ISO 2592

Auto-ignition temperature:

No information available.

Decomposition temperature:

No information available.

pH-Value:

No information available.

Viscosity / kinematic:
(at 40 °C)

68,9 mm²/s DIN EN ISO 3104

Water solubility:

Immiscible

Solubility in other solvents

No information available.

Partition coefficient n-octanol/water:

No information available.

Vapour pressure:

No information available.

(at 20 °C)

Vapour pressure:

No information available.

(at 50 °C)

Density (at 15 °C):

0,883 g/cm³ DIN 51757

Bulk density:

No information available.

Relative vapour density:

No information available.

Particle characteristics:

No information available.

Test method

9.2. Other information

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Information with regard to physical hazard classes

Explosive properties

none

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

No information available.

Gas:

No information available.

Oxidizing properties

none

Other safety characteristics

Evaporation rate:

No information available.

Solvent separation test:

No information available.

Solvent content:

No information available.

Solid content:

No information available.

Sublimation point:

No information available.

Softening point:

No information available.

Pour point:

-21 °C ASTM D 5985

Viscosity / dynamic:

No information available.

Flow time:

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

Refer to chapter 10.5.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Oxidising agent, strong

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

No information available.

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)				

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	oral	LD50 mg/kg	> 2000	Rat	ECHA Dossier	OECD Guideline 401
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Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched):

In vitro mutagenicity/genotoxicity: Method: OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test);

Result: negative. Literature information: ECHA Dossier; Reproductive toxicity: Species: Rat (Wistar); Method:

OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test); Result: NOAEL = 150 mg/kg

Literature information: ECHA Dossier; Developmental toxicity/teratogenicity: Species: Rat (Wistar); Method:

other guideline: Reproduction/developmental screening test. Result: NOAEL = 150 mg/kg; Literature

information: ECHA Dossier

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched):

Subacute oral toxicity: Method: -; Species: Rat; Results: NOAEL = 150 mg/kg; Literature information: ECHA

Dossier

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

Other information

Frequent contact specially if dried out may cause skin and eye irritations.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)					
	Acute fish toxicity	LC50 mg/l	ca. 8,5	96 h	Oncorhynchus mykiss	ECHA Dossier OECD Guideline 203
	Acute algae toxicity	ErC50	6,4 mg/l	96 h	Raphidocelis subcapitata	ECHA Dossier OECD Guideline 201
	Acute crustacea toxicity	EL50 mg/l	ca. 91,4	48 h	Daphnia magna	ECHA Dossier OECD Guideline 202
	Acute bacteria toxicity	(EC50 mg/l)	ca. 2433	3 h	activated sludge, domestic	ECHA Dossier OECD Guideline 209

12.2. Persistence and degradability

The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

CAS No	Chemical name
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Method	Value	d	Source
Evaluation			
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)			
ASTM D-5864-95	3,6%	28	ECHA Dossier
not readily degradable			

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)	< 0,3

BCF

CAS No	Chemical name	BCF	Species	Source
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)	436	Onchorhynchus mykiss	ECHA Dossier

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

No information available.

Further information

Ozone depletion potential (ODP): No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

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SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Informations for safe handling see chapter 7.
Informations for personal protective equipment see chapter 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

2010/75/EU (VOC):	No information available.
2004/42/EC (VOC):	No information available.
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)
This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): not relevant
Observe in addition any national regulations!

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

Additional information

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: not relevant

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15.2 Chemical Safety Assessment
not applicable.

SECTION 16: Other information**Changes**

Rev.: 1,0 - 07.05.2015
Rev.: 1,1 - 20.05.2016
Rev.: 2,0 - 08.06.2017
Rev.: 3,0 - 28.06.2018
Rev.: 4,0 - 27.06.2019
Rev.: 5,0 - 29.06.2020; Changes in chapter: 1,1, 16
Rev.: 6,0 - 04.06.2021; Changes in chapter: 3.2, 6.1, 6.3, 8.1, 11.1, 11.2, 12.1, 12.2, 12.3, 12.6, 12.7, 15.1,16
Rev.: 6,1 - 30.03.2022, Changes in chapter: 2.3, 3.2, 8.2, 12.5, 12.6, 15.1, 16
Rev.: 6.2 - 29.07.2022, Changes in chapter: 2.2, 2.3, 3.2, 8.1, 8.2, 11.2, 12.1, 12.3, 12.5, 12.6, 16
Rev.: 7.0 - 01.07.2023, Changes in chapter: 9.1, 10.1, 12.7, 16

Abbreviations and acronyms

CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NTP: National Toxicology Program
N/A: not applicable
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
SVHC: substance of very high concern
TRGS Technische Regeln fuerGefahrstoffe
TSCA: Toxic Substances Control Act
VOC: Volatile Organic Compounds

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:
Health hazards: Calculation method.



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Environmental hazards: Calculation method.

Physical hazards: On basis of test data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)