



Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.05.2023

Version number 1.0

Revision: 04.05.2023

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

- **Product identifier**
- **Trade name: Varius G 400 LS**
- **Article number:** 6321000
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Gear oil
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
oilfino Mineralöl GmbH
Werkstr. 12
D- 25497 Prisdorf
info@oilfino.com
Tel.: +49 (0) 4101 / 79900
www.oilfino.com
- **Further information obtainable from:** product safety department
- **Emergency telephone number:**
Poison Information Centre North (Göttingen)
Phone +49 (0)551-19240

SECTION 2: Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified, according to the GB CLP regulation.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.
- **Additional information:**
EUH 208: Contains Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs, Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched). May produce an allergic reaction.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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· **vPvB:** Not applicable.· **Determination of endocrine-disrupting properties**

1471311-26-8	Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs	List I
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SECTION 3: Composition/information on ingredients

· **Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

EC number: 931-384-6 Reg.nr.: 01-2119493620-38-XXXX	Reaction products of bis(4-methylpentan-2-yl) dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) Aquatic Chronic 2, H411; Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1B, H317 Specific concentration limits: Eye Irrit. 2; H319: C \geq 50 % Skin Sens. 1B; H317: C \geq 9.39 %	\geq 0.25- $<$ 2.5%
CAS: 1471311-26-8 EC number: 939-460-0 Reg.nr.: 01-2119971727-23	Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Chronic 3, H412	\geq 0.1- $<$ 1%

· **Additional information:**

The classification as a carcinogen is not obligatory if it can be shown that the mineral oils contained in the substance/mixture contain less than 3 % DMSO extract measured according to method IP 346.

For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **Description of first aid measures**· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:**

Remove soaked clothing immediately.

If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water.

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- **After swallowing:**
Do not induce vomiting. Rinse out mouth and drink plenty of water. Consult a doctor if symptoms persist.
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
Foam
Sand
Water haze
CO₂, powder or water spray. Fight larger fires with water spray.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **Precautions for safe handling** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class (TRGS):** 10
- **Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs**

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

Oral	DNEL Long-term - oral, systemic effects	0.28 mg/kg_bw/day (general public)
Dermal	DNEL Long-term – dermal, systemic effects	12.5 mg/kg_bw/d (Worker) 6.25 mg/kg_bw/d (general public)
Inhalative	DNEL Acute - dermal, local effects	0.024 mg/kg (general public)
	DNEL Long-term – inhalation, systemic effects	4.28 mg/m³/d (Worker) 1.09 mg/m³/d (general public)

1471311-26-8 Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs

Dermal	DNEL Derived No Effects Level	66.7 mg/kg (Worker) (long term, systemic effect) 0.033 mg/kg (general public) (long term, systemic effect)
Inhalative	DNEL Derived No Effects Level	2.35 mg/m³ (Worker) (long term, systemic effect) 0.58 mg/m³ (general public) (long term, systemic effect)

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

PNEC short term, fresh water	0.0024 mg/l (Aquatic organisms)
PNEC short term, sea water	0.00024 mg/l (Aquatic organisms)
PNEC short term, sewage plant	24.33 mg/l (Microorganism)
PNEC short term fresh water sediment	0.0129 mg/kg (Aquatic organisms)
PNEC short term soil	0.00117 mg/kg (terrestrial organisms)
PNEC short term sea water sediment	0.00129 mg/kg (Aquatic organisms)
PNEC short term, intermittent releases	0.15 mg/l (Aquatic organisms)
PNEC secondary poisoning	10 mg/kg KG/d (Aquatic organisms)

1471311-26-8 Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs

PNEC Predicted No Effect Concentration, Freshwater	0.026 mg/ltr
PNEC Predicted No Effect Concentration Sea Water	0.0026 mg/ltr

· **Additional information:** The lists valid during the making were used as basis.

· Exposure controls

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

· **Respiratory protection:** Not required.

· Hand protection

Protective gloves

· Material of gloves

Value for permeation: Level ≥ 5

Nitrile rubber, NBR

Neoprene gloves

Fluorocarbon rubber (Viton)

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye/face protection

Tightly sealed goggles

· Body protection: Oil resistant protective clothing**SECTION 9: Physical and chemical properties****· Information on basic physical and chemical properties****· General Information**

· Physical state	Fluid
· Colour:	Brown
· Odour:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	Undetermined.
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	>180 °C
· Decomposition temperature:	Not determined.
· pH	Mixture is non-soluble (in water).
· Viscosity:	
· Kinematic viscosity at 40 °C	165 mm ² /s
· Dynamic:	Not determined.
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	0.899 g/cm ³
· Relative density	Not determined.
· Density (@15°C)	0.852 g/cm ³

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· Vapour density	Not determined.
· Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· VOC (EC)	0.00 %
· Solids content:	0.0 %
· Change in condition	
· Softening point/range	
· Pour point	-21 °C
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

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SECTION 10: Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

ATE (Acute Toxicity Estimates)

Oral	LD50	>80,000-200,000 mg/kg (rat)
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Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)

Oral	LD50	2,000 mg/kg (rat)
	Acute Toxicity Estimate of ingredient (ATE) oral	2,000 mg/kg

1471311-26-8 Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs

Oral	LD50	2,000-5,000 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **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.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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· **Information on other hazards**

· **Endocrine disrupting properties**

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SECTION 12: Ecological information

· **Toxicity**

· **Aquatic toxicity:**

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

LC50 (96h)	8.5 mg/l (Oncorhynchus mykiss)
EL50 (48h)	91.4 mg/l (daphnia)
EC50 (96h) mg/ltr	6.4 mg/ltr (Pseudokirchneriella subcapitata)
LL50 (96h)	24 mg/l (Oncorhynchus mykiss)
NOEL (21d)	0.12 ml/l (Daphnia magna) ml/l (rat)

1471311-26-8 Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs

EC50 (72h)	25-71 mg/l (Pseudokirchneriella subcapitata)
EL 50(72h)	75 mg/l (Fish)
EC50 (96h) mg/ltr	25-79 mg/ltr (Pseudokirchneriella subcapitata)
EC10 (72h)	9.2-17 mg/ltr. (Pseudokirchneriella subcapitata)
LL50 (96h)	26 mg/l (Fish)

· **Persistence and degradability**

64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic	3 %
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	3,6 (28d) %

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· **Bioaccumulative potential**

	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	<0,3
1471311-26-8	Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs	5.31 - 11.41 @ 25 °C and pH 7.4

· **Mobility in soil** No further relevant information available.

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

· **Endocrine disrupting properties**

For information on endocrine disrupting properties see section 11.

· **Other adverse effects** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Self-classification according to Annex 1 (to § 4 paragraph 1, § 8 paragraph 1 and § 10 paragraph 2) of the Ordinance on Facilities for Handling Substances Hazardous to Water 1, 2 (AwSV).

SECTION 13: Disposal considerations

· **Waste treatment methods**

· **Recommendation** Smaller quantities can be disposed of with household waste.

· **European waste catalogue**

13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils
15 01 10*	packaging containing residues of or contaminated by hazardous substances
HP14	Ecotoxic

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· UN number or ID number · ADR, IMDG, IATA	not regulated
· UN proper shipping name · ADR, IMDG, IATA	not regulated
· Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	not regulated
· Packing group · ADR, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	not regulated

SECTION 15: Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture: (Substances not listed)		
None of the ingredients is listed.		
· Directive 2004/42/EC		
· Directive 2012/18/EU		
· Named dangerous substances - ANNEX I None of the ingredients is listed.		
· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)		
1471311-26-8	Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs	Sunset date: 2025-05-01
· REGULATION (EU) 2019/1148		
· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))		
None of the ingredients is listed.		

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· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· National regulations:**· VOC (EU) 0.0 g/l****· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information****· Disclaimer**

This safety data sheet contains only safety relevant information. The information is based on the state of our knowledge at the time of revision, however, it does not constitute a guarantee of product properties, product information or product specifications and does not establish a contractual legal relationship. This document is only valid in its unchanged form. In the event of changes by third parties, the exhibitor accepts no responsibility for form and content or for any damages or claims arising from such changes. The information is not transferable to other products. If the product named in this safety data sheet is mixed, blended or processed with other materials or is subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise. The data sheet does not release the user from the obligation to ensure that he acts in accordance with all regulations in connection with his activity.

· Relevant phrases

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

· Contact: MSDS authorized Person**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1B: Skin sensitisation – Category 1B
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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