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

1.1 Product identifier

Trade name: AUTOL TOP 2000 TYP 000

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Lubricants, greases, release products (fat)

1.3 Details of the supplier of the safety data sheet

Company name: Enilive Schmiertechnik GmbH
Street/POB-No.: Paradiesstraße 14
Postal Code, city: 97080 Würzburg
Germany
E-mail: info.wuerzburg@enilive.com
Telephone: +49 (0)931-90098-0
Telefax: +49 (0)931-98442

Department responsible for information:
Application Engineering & Product Management (AEPM)
Telephone: +49 (0)931-90098-0
E-mail: technik.wuerzburg@enilive.com

1.4 Emergency telephone number

GIZ-Nord, Göttingen
Telephone: +49 (0)551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (CLP)

Hazard statements:	H412	Harmful to aquatic life with long lasting effects.
Precautionary statements:	P273	Avoid release to the environment.
	P501	Dispose of contents/container to hazardous or special waste collection point.

2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

CAS No.	Designation	PBT/vPvB	ED Human	ED Environment
128-37-0	3,5-Di-tert-butyl-4-hydroxytoluene		List II	

SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: A mixture of base oils and additives.

Hazardous ingredients:

Identifiers	Designation Classification	Content
REACH 01-2119493635-27-xxxx EC No. 224-235-5 CAS 4259-15-8	Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) Eye Dam. 1; H318. Aquatic Chronic 2; H411. Specific concentration limits (SCL): Eye Dam.1; H318: C ≥ 50 %	1 - 5 %
REACH 01-2119555270-46-xxxx EC No. 204-881-4 CAS 128-37-0	3,5-Di-tert-butyl-4-hydroxytoluene Aquatic Acute 1; H400. Aquatic Chronic 1; H410. M-factors: Aquatic Chronic 1: M = 1.	< 1 %

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

Additional information: The highly refined mineral oil contains <3% (w/w) DMSO extract, according to IP346.

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.

Following skin contact: Immediately clean with water and soap followed by thorough rinsing. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Seek the attention of an ophthalmologist immediately.

After swallowing: Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Danger of aspiration! Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Respiratory complaints, headache, discomfort, dizziness. Symptoms can occur only after several hours.

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: Extinguishing powder, foam, sand, carbon dioxide.
Co-ordinate fire-fighting measures to the fire surroundings.

Extinguishing media which must not be used for safety reasons:
Water.

5.2 Special hazards arising from the substance or mixture

May form dangerous gases and vapours in case of fire.
Furthermore, there may develop: Nitrogen oxides (NOx), carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:
Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information: Do not inhale explosion and combustion gases. Use fine water spray to cool endangered containers. Move undamaged containers from immediate hazard area if it can be done safely. Contaminated fire-fighting water must be collected separately. Do not allow water used to extinguish fire to enter drains, ground or waterways.
Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing mist/vapours/spray. Avoid contact with the substance.
If possible, eliminate leakage. Provide adequate ventilation.
Keep unprotected people away.
Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.

6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.
If necessary notify appropriate authorities.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, universal binding agents, sawdust).
Never return spills in original containers for re-use.

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid breathing mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Take off contaminated clothing and wash it before reuse.

Precautions against fire and explosion:
Keep away from heat.
When handling larger quantities, take precautionary measures against electrostatic charging.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:
Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from heat and direct sunlight. Store containers in upright position.
Protect from frost.
Recommended storage temperature: 0 - 40 °C
Storage stability: > 6 months

Hints on joint storage: Do not store together with: Oxidizing agents, acids.
Keep away from food, drink and animal feedingstuffs.

Storage class: 10 = Combustible liquids, unless storage class 3

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
4259-15-8	Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	Germany: DFG Kurzzeit	0,4 mg/m³ (compounds, inorganic; respirable fraction)
		Germany: DFG Kurzzeit	4 mg/m³ (compounds, inorganic; inhalable fraction)
		Germany: DFG Langzeit	0,1 mg/m³ (compounds, inorganic; respirable fraction)
		Germany: DFG Langzeit	2 mg/m³ (compounds, inorganic; inhalable fraction)
128-37-0	3,5-Di-tert-butyl-4-hydroxytoluene	Germany: TRGS 900 Kurzzeit	40 mg/m³ (Aerosol and vapour, inhalable fraction)
		Germany: TRGS 900 Langzeit	10 mg/m³ (Aerosol and vapour, inhalable fraction)

DNEL/DMEL:

Information about Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
DNEL workers, long-term, systemic, inhalative: 6,6 mg/m³
DNEL workers, long-term, systemic, dermal: 9,6 mg/kg bw/d
DNEL consumers, systemic, long-term, inhalative: 1,67 mg/m³
DNEL consumers, systemic, long-term, dermal: 4,8 mg/kg bw/d
DNEL consumers, systemic, long-term, oral: 0,19 mg/kg bw/d

Information about 3,5-Di-tert-butyl-4-hydroxytoluene:
DNEL workers, long-term, systemic, inhalative: 1,76 mg/m³
DNEL workers, long-term, systemic, dermal: 0,5 mg/kg bw/d
DNEL consumers, systemic, long-term, inhalative: 0,435 mg/m³
DNEL consumers, systemic, long-term, dermal: 0,25 mg/kg bw/d
DNEL consumers, systemic, long-term, oral: 0,25 mg/kg bw/d

PNEC:

Information about Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
PNEC water (freshwater): 4 µg/L
PNEC water (marine water): 4,6 µg/L
PNEC sewage treatment plant: 3,8 mg/L
PNEC sediment (freshwater): 0,322 mg/kg dw
PNEC sediment (marine water): 0,032 mg/kg dw
PNEC soil: 0,062 mg/kg dw

Information about 3,5-Di-tert-butyl-4-hydroxytoluene:
PNEC water (freshwater): 0,199 µg/L
PNEC water (marine water): 0,02 µg/L
PNEC sewage treatment plant: 0,017 mg/L
PNEC sediment (freshwater): 0,458 mg/kg dw
PNEC sediment (marine water): 0,046 mg/kg dw
PNEC soil: 0,054 mg/kg dw

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment

Occupational exposure controls

Respiratory protection:

Respiratory protection must be worn whenever the WEL levels have been exceeded. In case of inadequate ventilation wear respiratory protection.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection:	Protective gloves according to DIN EN 374. Qualified glove material: Acrylonitrile-butadiene-rubber. Unsuitable glove material: Butyl caoutchouc (butyl rubber), natural rubber (Caoutchouc), chloroprene rubber. Breakthrough time: 240 min Layer thickness: 0,12 mm Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed goggles according to DIN EN ISO 16321-1:2022.
Body protection:	Wear suitable protective clothing.
General protection and hygiene measures:	Avoid breathing mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Environmental exposure controls

Refer to "6.2 Environmental precautions".

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	liquid Form: Paste
Colour:	green
Odour:	Characteristic
Odour threshold:	No data available
Melting point/freezing point:	> 60 °C (1013 hPa)
Initial boiling point and boiling range:	> 250 °C (1013 hPa)
Flammability:	This material is combustible, but will not ignite readily.
Upper/lower flammability or explosive limits:	LEL (Lower Explosion Limit): not determined UEL (Upper Explosive Limit): not determined
Flash point/flash point range:	> 200 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	No data available
pH:	not determined
Viscosity, kinematic:	not determined
Solubility:	not determined
Water solubility:	not determined
Partition coefficient: n-octanol/water:	5,1 log K(o/w) (3,5-Di-tert-butyl-4-hydroxytoluene) Based on the n-octanol/water partition coefficient accumulation in organisms is possible. at 22 °C: 3,59 log K(o/w) (Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate), pH = 5) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.
Vapour pressure:	not determined
Density:	not determined
Vapour density:	No data available
Particle characteristics:	Not applicable

9.2 Other information

Explosive properties:	Product is not explosive.
Oxidizing characteristics:	No data available
Auto-ignition temperature:	No data available
Evaporation rate:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.
Protect from direct sunlight. Protect from frost.

10.5 Incompatible materials

Oxidizing agents, acids.

10.6 Hazardous decomposition products

No decomposition when used properly.

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
May be harmful if inhaled.

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.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

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

Germ cell mutagenicity/Genotoxicity: 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.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

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

11.2 Information on other hazards

Endocrine disrupting properties: This product contains a substance that has endocrine disrupting properties with respect to humans.

Other information: No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Harmful to aquatic life with long lasting effects.

Information about Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
EC50 aquatic micro-organisms: 380 mg/L/16h

Information about 3,5-Di-tert-butyl-4-hydroxytoluene:
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): 0,096 mg/L/21d

Water Hazard Class: 1 = slightly hazardous to water (Self-classification (mixture).)

12.2 Persistence and degradability

Further details: Information about Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
Biodegradation water: oxygen consumption: <5 % /5d

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

5,1 log K(o/w) (3,5-Di-tert-butyl-4-hydroxytoluene)
Based on the n-octanol/water partition coefficient accumulation in organisms is possible.
at 22 °C: 3,59 log K(o/w) (Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate), pH = 5)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

None.

12.7 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 12 01 12* = Spent waxes and fats
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.
Do not dispose of with household waste.

Package

Waste key number: 15 01 10* = packaging containing residues of or contaminated by dangerous substances
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.
Handle contaminated packages in the same way as the substance itself.
Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID, IMDG, IATA-DGR: not applicable
ADN: ID 9006

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR: Not restricted
ADN: ID 9006, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR: not applicable
ADN: Class 9, Code: M12

14.4 Packing group

ADR/RID, ADN, IMDG, IATA-DGR:
not applicable

14.5 Environmental hazards

Dangerous for the environment:
Substance/mixture is not environmentally hazardous according to the criteria of the UN model regulations.
Marine pollutant - IMDG: no

14.6 Special precautions for user

Inland waterway craft (ADN)

Hazard label: -
Transport permitted: T
Equipment necessary: PP

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

National regulations - Germany

Storage class: 10 = Combustible liquids, unless storage class 3
Water Hazard Class: 1 = slightly hazardous to water (Self-classification (mixture).)
Technical guidance air: 5.2.5
Further regulations, limitations and legal requirements:
The product is not subject to the Chemicals Prohibition Ordinance (ChemVerbotsV).

National regulations - EC member states

Volatile organic compounds (VOC):
< 3 % by weight
Further regulations, limitations and legal requirements:
Use restriction according to REACH annex XVII, no.: 3, 75.

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Wording of the H-phrases under paragraph 2 and 3:

H318 = Causes serious eye damage.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
H411 = Toxic to aquatic life with long lasting effects.
H412 = Harmful to aquatic life with long lasting effects.

Reason of change: Changes in section 1: Details of the supplier of the safety data sheet
General revision

Date of first version: 6.7.2022

Department issuing data sheet: see section 1: Department responsible for information

Abbreviations and acronyms:
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
Aquatic Acute: Hazardous to the aquatic environment - acute
Aquatic Chronic: Hazardous to the aquatic environment - chronic
AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EC50: Effective Concentration 50%
EN: European Standard
EQ: Excepted quantities
EU: European Union
Eye Dam.: Eye damage
IATA: International Air Transport Association
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LEL: Lower Explosion Limit
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
M-factor: Multiplication factor
OEL: Occupational Exposure Limit Value
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

Most recent product information is available at:
http://sumdat.net/pusyfz3r