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## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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

## 1.1. Product identifier

Trade name/designation:

## RAVENOL Getriebeoel EPX SAE 140 GL4/GL5

## Article No.:

1223210

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

## Use of the substance/mixture:

Lubricant

## 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

## **Ravensberger Schmierstoffvertrieb GmbH**

löllenbecker Str. 2 33824 Werther

**Telephone:** +49 5203 9719 0 Telefax: +49 5203 9719 40 E-mail: kontakt@ravenol.de Website: www.ravenol.de

E-mail (competent person): technik@ravenol.de

## 1.4. Emergency telephone number

Abt. Technik (Produktsicherheit), 24h: +49 700 24 112 112 (Contract ID: RAV), +49 5203 9719 0 (Mo-Do 7.30 Uhr - 16.30 Uhr, Fr 7.30 Uhr - 13.15 Uhr) (Only available during office hours.)

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

## Classification according to Regulation (EC) No 1272/2008 [CLP]:

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

## 2.2. Label elements

## Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

## Hazard statements: -

## Supplemental Hazard information (EU)

Safety data sheet available on request.

## Precautionary statements: -

## 2.3. Other hazards

No data available

## **SECTION 3: Composition / information on ingredients**

## 3.2. Mixtures

No data available

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## **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). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

## Following inhalation:

Provide fresh air. Consult a doctor immediately.

#### In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor immediately.

#### After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

## After ingestion:

Rinse mouth thoroughly with water. Do NOT induce vomiting. Consult a doctor immediately.

#### Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

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

No known symptoms to date.

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

Treat symptomatically. Observe risk of aspiration if vomiting occurs.

## **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

## Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings.

Carbon dioxide (CO2)

Extinguishing powder

alcohol resistant foam

Use water spray jet to protect personnel and to cool endangered containers.

## Unsuitable extinguishing media:

Full water jet

## \* 5.2. Special hazards arising from the substance or mixture

During heating or in case of fire, toxic gases is possible.

The formation of combustible vapours is possible at temperatures above: Flash point

## **Hazardous combustion products:**

Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx),

During heating or in case of fire, toxic gases is possible.

## 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing.

#### 5.4. Additional information

Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

## 6.1.1. For non-emergency personnel

## **Personal precautions:**

Use personal protection equipment. Special danger of slipping by leaking/spilling product. Remove persons to safety.

#### **Protective equipment:**

Wear protective gloves/protective clothing/eye protection/face protection.

#### **Emergency procedures:**

Remove persons to safety.

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## 6.1.2. For emergency responders

## Personal protection equipment:

Use personal protection equipment.

## 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

## $f^*$ f 6.3. Methods and material for containment and cleaning up

#### For containment:

Suitable material for taking up: Sand, Kieselguhr, Universal binder, Chemical binding agents, containing acids

Prevent spread over a wide area (e.g. by containment or oil barriers).

## For cleaning up:

Remove from the water surface (e.g. skimming, sucking). Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

#### Other information:

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

## 6.4. Reference to other sections

Safe handling: see section 7 Disposal: see section 13

Personal protection equipment: see section 8

## 6.5. Additional information

Clear spills immediately. Use appropriate container to avoid environmental contamination.

## **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

#### **Protective measures**

#### Advices on safe handling:

Personal protection equipment: see section 8

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Do not put any product-impregnated cleaning rags into your trouser pockets. Clear spills immediately. Use appropriate container to avoid environmental contamination.

#### Fire prevent measures:

No special fire protection measures are necessary.

#### **Environmental precautions:**

Shafts and sewers must be protected from entry of the product.

## Advices on general occupational hygiene

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

## 7.2. Conditions for safe storage, including any incompatibilities

## Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

## Requirements for storage rooms and vessels:

Suitable container/equipment material: Floors should be impervious, resistant to liquids and easy to clean. Shafts and sewers must be protected from entry of the product.

Keep/Store only in original container.

## Hints on storage assembly:

not required

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

## Further information on storage conditions:

Store in a cool dry place. Keep away from heat.

## 7.3. Specific end use(s)

#### **Recommendation:**

Observe technical data sheet.

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## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

## 8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	<ol> <li>long-term occupational exposure limit value</li> <li>short-term occupational exposure limit value</li> <li>Instantaneous value</li> <li>Monitoring and observation processes</li> <li>Remark</li> </ol>
SK	benzothiazole-2-thiol CAS No.: 149-30-4	① 4 mg/m³
RU	benzothiazole-2-thiol CAS No.: 149-30-4	③ 1 mg/m³
TRGS 900 (DE)	benzothiazole-2-thiol CAS No.: 149-30-4	① 4 mg/m³ ⑤ (einatembare Fraktion)
VLA (FR)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 1,000 mg/m³ ② 1,500 mg/m³ ⑤ (hydrocarbures C9-C12)
NO	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 50 ppm (275 mg/m³) ⑤ (White Spirit (aromatinnhold < 22 %))
DFG (DE)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 5 mg/m³ ② 20 mg/m³ ⑤ (Aerosol, alveolengängige Fraktion)
BC (CA)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 200 mg/m³ ⑤ (may be absorbed through the skin)
MAK (AT)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 200 mL/m³ ② 400 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aro matischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/Isohexanen von weniger als 25 %)
MAK (AT)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 170 mL/m³ ② 340 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aro matischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/Isohexanen von 25 % oder mehr)
WEL (GB)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 1,200 mg/m³ ⑤ (> or = C7, Normal and branched chain alkanes)
WEL (GB)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 800 mg/m³ ⑤ (> or = C7, Cycloalkanes)
DFG (DE)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 50 ppm (350 mg/m³) ② 100 ppm (700 mg/m³) ⑤ Dampf
RU	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 100 mg/m³ ③ 300 mg/m³
СН	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 350 mg/m³ ② 700 mg/m³

## 8.1.2. Biological limit values

No data available

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#### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene CAS No.: 68411-46-1	0.6 mg/m <sup>3</sup>	① DNEL worker ② inhalative, long-term, systemic
benzothiazole-2-thiol CAS No.: 149-30-4	8.8 mg/m <sup>3</sup>	DNEL worker     inhalative, long-term, systemic
benzothiazole-2-thiol CAS No.: 149-30-4	70.4 mg/m <sup>3</sup>	① DNEL worker ② inhalative, short-term, local, (acute)
benzothiazole-2-thiol CAS No.: 149-30-4	5 mg/kg bw/ day	① DNEL worker ② dermal, long-term, local
benzothiazole-2-thiol CAS No.: 149-30-4	40 mg/kg bw/day	① DNEL worker ② dermal, short-term, local, (acute)

Substance name	PNEC Value	① PNEC type
benzothiazole-2-thiol CAS No.: 149-30-4	0.0041 mg/l	① PNEC aquatic, freshwater
benzothiazole-2-thiol CAS No.: 149-30-4	0.00041 mg/	① PNEC aquatic, marine water
benzothiazole-2-thiol CAS No.: 149-30-4	0.3 mg/l	① PNEC sewage treatment plant
benzothiazole-2-thiol CAS No.: 149-30-4	0.147 mg/kg bw/day	① PNEC sediment, freshwater
benzothiazole-2-thiol CAS No.: 149-30-4	0.0147 mg/ kg bw/day	① PNEC sediment, marine water
Distillates (petroleum), hydrotreated middle; Gas oil - unspecified CAS No.: 64742-46-7	17 mg/kg	① PNEC secondary poisoning

## 8.2. Exposure controls

## 8.2.1. Appropriate engineering controls

See section 7. No additional measures necessary.

## 8.2.2. Personal protection equipment





## Eye/face protection:

During transfer: Eye glasses with side protection

Wear eye/face protection. DIN EN 166

#### Skin protection:

Hand protection

Suitable material: NBR (Nitrile rubber), PVC (polyvinyl chloride), CR (polychloroprene, chloroprene rubber)

Thickness of the glove material: >= 0,4 mm

Breakthrough time (maximum wearing time) 480 min

Breakthrough times and swelling properties of the material must be taken into consideration.

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 mentioned above together with the supplier of these gloves.

Tested protective gloves must be worn: EN ISO 374

Suitable protective clothing: Protective clothing

## Respiratory protection:

Usually no personal respirative protection necessary.

## 8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

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#### 8.3. Additional information

Mineral oil mist limits:

OSHA PEL - value 5 mg / m³, ACGIH STEL - value of 10 mg / m³

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

**Appearance** 

Physical state: Liquid Colour: brown

**Odour:** characteristic

## Safety relevant basis data

parameter		at °C	Method	Remark
рН	not determined			
Melting point	not determined			
Freezing point	not determined			
Initial boiling point and boiling range	not determined			
Decomposition temperature	not determined			
Flash point	222 °C			
Evaporation rate	not determined			
Auto-ignition temperature	not determined			
Upper/lower flammability or explosive limits	not determined			
Vapour pressure	not determined			
Vapour density	not determined			
Density	894 kg/m³	20 °C		
Bulk density	not determined			
Water solubility	The study does not need to be conducted because the substance is known to be insoluble in water.			
Partition coefficient: n-octanol/ water	not determined			
Dynamic viscosity	not determined			
Kinematic viscosity	352 mm <sup>2</sup> /s	40 °C		

## 9.2. Other information

No data available

## **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

No known hazardous reactions. Risk of explosion if heated under confinement.

## 10.2. Chemical stability

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

## 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

## 10.4. Conditions to avoid

To avoid thermal decomposition do not overheat.

## 10.5. Incompatible materials

Materials to avoid: Acid, Oxidising agent, Reducing agent

## 10.6. Hazardous decomposition products

Hazardous combustion products: Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

sp en / DE / BA / BY / MK / HU / ...

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## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

#### Acute oral toxicity:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

## Acute dermal toxicity:

No information available for acute dermal and inhalative toxicity.

## Acute inhalation toxicity:

No information available for acute dermal and inhalative toxicity.

#### Skin corrosion/irritation:

No irritant effect. Frequently or prolonged contact with skin may cause dermal irritation.

#### Serious eve damage/irritation:

No irritant effect.

#### Respiratory or skin sensitisation:

No sensitizing effects known.

#### Germ cell mutagenicity:

No indications of human germ cell mutagenicity exist.

#### Carcinogenicity:

No indication of human carcinogenicity. This product contains mineral oils which are considered to be severely refined and not considered by IARC as carcinogenic. Based on the IP 346 test has been demonstrated that all of the oils contained in this product contain less than 3% extractables.

#### **Reproductive toxicity:**

No indications of human reproductive toxicity exist.

## STOT-single exposure:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

#### STOT-repeated exposure:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

## **Aspiration hazard:**

Observe risk of aspiration if vomiting occurs.

## **Additional information:**

Frequently or prolonged contact with skin may cause dermal irritation.

## **SECTION 12: Ecological information**

## 12.1. Toxicity

#### Assessment/classification:

The product has not been tested.

## Additional ecotoxicological information:

Do not allow uncontrolled discharge of product into the environment.

## 12.2. Persistence and degradability

#### **Biodegradation:**

Not readily biodegradable (according to OECD criteria)

## 12.3. Bioaccumulative potential

## **Accumulation / Evaluation:**

The product has not been tested.

## 12.4. Mobility in soil

The product has not been tested.

## 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.

#### 12.6. Other adverse effects

There are no data available on the preparation/mixture itself.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Dispose of waste according to applicable legislation.

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## **Waste treatment options**

## **Appropriate disposal / Product:**

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

## Appropriate disposal / Package:

Non-contaminated packages may be recycled.

## 13.2. Additional information

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

## **SECTION 14: Transport information**

No dangerous good in sense of these transport regulations.

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO- TI / IATA-DGR)		
14.1. UN-No.					
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.		
14.2. UN proper sh	ipping name				
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.		
14.3. Transport has	zard class(es)				
not relevant			_		
14.4. Packing grou	p				
not relevant					
14.5. Environment	al hazards				
not relevant			-		
14.6. Special preca	utions for user				
not relevant			_		

\* 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No transport as bulk according to IBC Code.

## **SECTION 15: Regulatory information**

# \* 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

## 15.1.1. EU legislation

## Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category. Safety data sheet available for professional user on request.

## 15.1.2. National regulations

## [DE] National regulations

#### Störfallverordnung

#### for substances contained in the product:

This product is not assigned to a hazard category.

## **Technische Anleitung Luft (TA-Luft)**

## Remark:

To follow: 5.2.5.

## Water hazard class (WGK)

#### WGK:

2 - deutlich wassergefährdend

en / DE / BA / BY / MK / HU / ...

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#### Source:

Self-classification (mixture; calculation rule).

Identification number 436

## Technische Regeln für Gefahrstoffe

**TRGS 510** 

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

## Berufsgenossenschaftliche Vorschriften (BGV)

Berufsgenossenschaftliche Informationen (BGI) 868

Berufsgenossenschaftliche Regeln (BGR) 189, 190, 192, 195

## Other regulations, restrictions and prohibition regulations

Altöl-Verordnung (AltölV)

## [DK] National regulations

## Other regulations, restrictions and prohibition regulations

Lister over stoffer og processer, der anses for at være kræftfremkaldende

## [FR] National regulations

## Other regulations, restrictions and prohibition regulations

Tableaux de maladies professionnelles

Nomenclature des installations classées pour la protection de l'environnement

## [NL] National regulations

## Other regulations, restrictions and prohibition regulations

Lijst van kankerverwekkende, mutagene, en voor de voortplanting giftige stoffen SZW Algemeene beoordelingsmethodiek Water (ABM)

Nederlandse emissierichtlijn (NeR)

## [CH] National regulations

## Other regulations, restrictions and prohibition regulations

Mengenschwelle (Schweiz - StFV)

Gefahrencode

Brandverhütung, BVD (Schweiz)

## 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

#### **SECTION 16: Other information**

## 16.1. Indication of changes

1.3.	Details of the supplier of the safety data sheet
1.4.	Emergency telephone number
2.2.	Label elements
3.2.	Mixtures
5.2.	Special hazards arising from the substance or mixture
6.1.	Personal precautions, protective equipment and emergency procedures
6.3.	Methods and material for containment and cleaning up
7.1.	Precautions for safe handling
8.1.	Control parameters
8.2.	Exposure controls
9.1.	Information on basic physical and chemical properties
11.1.	Information on toxicological effects
12.2.	Persistence and degradability
14.1.	UN number
14.2.	UN proper shipping name
14.7.	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
15.3.	Additional information
16.4.	Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

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## 16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

## 16.3. Key literature references and sources for data

67/548/EEC - Dangerous Substances Directive

1999/45/EEC - Dangerous Preparations Directive

EC 1907/2006 - REACH Regulation

1272/2008 EC - Regulation on classification, labeling and packaging of substances and mixtures, and amending Directives 67/548/EEC and 1999/45/EC and Regulation (EC) No 1907/2006

Regulation (EC) No 1907/2006 (REACH), Annex II

European Chemicals Agency (ECHA), C & L classification and labeling inventory

European Chemicals Agency (ECHA), ECHA CHEM Registered substances

OECD The Global Portal to Information on Chemical Substances (ChemPortal)

Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA): GESTIS substance database and International limit values for chemical substances

Federal Environment Agency, Section IV 2.4: Documentation and Information Centre substances hazardous to water Rigoletto (catalog substances hazardous to water)

## 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

## 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

No data available

## 16.6. Training advice

No data available

#### 16.7. Additional information

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 madeup material.

\* Data changed compared with the previous version