

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 Racing Gearoil

Article No.:

1221111

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

Jöllenbecker Str. 2

33824 Werther

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Telephone: +49 5203 9719 0

Telefax: +49 5203 9719 48

E-mail: kontakt@ravenol.de

Website: www.ravenol.de

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

1.4. Emergency telephone number

Abt. Produktsicherheit, 24h: +49 700 24 112 112 (Company ID: RAV) (outside USA/Canada) 011 49 700 24 112 112 (Company ID: RAV) (inside USA/Canada), +49 5203 9719 0 (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]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Acute toxicity (oral) (<i>Acute Tox. 4</i>)	H302: Harmful if swallowed.	
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	
STOT-repeated exposure (<i>STOT RE 2</i>)	H373: May cause damage to organs through prolonged or repeated exposure. (...)	
Hazardous to the aquatic environment (<i>Aquatic Chronic 3</i>)	H412: Harmful to aquatic life with long lasting effects.	

2.2. Label elements

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

Hazard pictograms:



GHS07

Exclamation mark.



GHS08

Health hazard

Signal word: Warning

Hazard components for labelling:

Amines, N-tallow alkyltrimethylenedi-



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hazard statements for health hazards

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure. (...)

Hazard statements for environmental hazards

H412	Harmful to aquatic life with long lasting effects.
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Supplemental Hazard information (EU): -

Precautionary statements Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.

Precautionary statements Response

P302 + P352	IF ON SKIN: Wash with plenty of water/soap.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Precautionary statements Disposal

P501	Dispose of contents/container to according to official regulations for disposal.
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2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Additional information:

The base oil / mineral oil used has a value of less than 3% DMSO, so it is not classified as a carcinogen.

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 61791-55-7 EC No.: 263-189-0 REACH No.: 01-2119487014-41	Amines, N-tallow alkyltrimethylenedi- Skin Corr. 1B, Acute Tox. 4, STOT RE 1, Aquatic Acute 1, Aquatic Chr onic 1 H302-H314-H372-H410	0 - 1 Wt %

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

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. If skin irritation or rash occurs: Get medical advice/attention.

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.



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

May cause damage to organs through prolonged or repeated exposure.

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:

High power 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 (NO_x),

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.

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.

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

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



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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:

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:

See section 8.

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.

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	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
DFG (DE)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 50 ppm (350 mg/m ³) ② 100 ppm (700 mg/m ³) ⑤ Dampf
DFG (DE)	Distillates (petroleum), hydro treated light CAS No.: 64742-47-8	① 5 mg/m ³ ② 20 mg/m ³ ⑤ Aerosol (alveolengängige Fraktion)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

See section 7. No additional measures necessary.



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8.2.2. Personal protection equipment

Eye/face protection:

During transfer: Eye glasses with side protection

Skin protection:

Hand protection

Suitable material: NBR (Nitrile rubber), PVC (Polyvinyl chloride)

Thickness of the glove material: $\geq 0,4$ 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.

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.

8.3. Additional information

Mineral oil mist limits:

OSHA PEL - value $5 \text{ mg} / \text{m}^3$, ACGIH STEL - value of $10 \text{ mg} / \text{m}^3$

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: blue

Odour: characteristic

Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point	<i>not determined</i>			
Freezing point	<i>No data available</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>No data available</i>			
Flash point	208 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>No data available</i>			
Upper/lower flammability or explosive limits	<i>No data available</i>			
Vapour pressure	<i>No data available</i>			
Vapour density	<i>No data available</i>			
Density	865 kg/m ³	20 °C		
Bulk density	<i>not applicable</i>			
Water solubility (g/L)	insoluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not applicable</i>			
Kinematic viscosity	26 mm ² /s	100 °C		

9.2. Other information

No data available



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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, Reducing agent

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
61791-55-7	Amines, N-tallow alkyltrimethylenedi-	LD ₅₀ oral: >300 - 2,000 mg/kg

Acute oral toxicity:

Harmful if swallowed.

Acute dermal toxicity:

No data available

Acute inhalation toxicity:

No data available

Skin corrosion/irritation:

Causes skin irritation.

Eye damage/irritation:

Causes serious eye irritation.

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.

Reproductive toxicity:

No indications of human reproductive toxicity exist.

STOT-single exposure:

No data available

STOT-repeated exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard:

No data available

Additional information:

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

12.1. Toxicity

CAS No.	Substance name	Toxicological information
61791-55-7	Amines, N-tallow alkyltrimethylenedi-	LC ₅₀ : >0.1 - 1 mg/l 4 d EC ₅₀ : >0.01 - 0.1 mg/l 21 d EC ₅₀ : >0.01 - 0.1 mg/l 2 d

Assessment/classification:

There are no data available on the mixture itself.



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Additional ecotoxicological information:

Do not allow uncontrolled discharge of product into the environment. Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Biodegradation:

Not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Accumulation / Evaluation:

No indication of bioaccumulation potential.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
61791-55-7	Amines, N-tallow alkyltrimethylenedi-	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

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

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste according to applicable legislation.

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.

14.1. UN-No.	not relevant
14.2. UN proper shipping name	not relevant
14.3. Transport hazard class(es)	not relevant
14.4. Packing group	not relevant
14.5. Environmental hazards	not relevant
14.6. Special precautions for user	not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable



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SECTION 15: Regulatory information

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

15.1.1. EU legislation

No data available

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (WGK)

WGK:

2 - deutlich wassergefährdend

Description:

hazardous to water (WGK 2)

Source:

Classification according to VwVwS, Annex 4.

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 (AltöIV)

15.2. Chemical Safety Assessment

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

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

SECTION 2: Hazards identification
SECTION 4: First aid measures
SECTION 5: Firefighting measures
SECTION 9: Physical and chemical properties
SECTION 10: Stability and reactivity
SECTION 11: Toxicological information
SECTION 15: Regulatory information

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).



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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]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Acute toxicity (oral) (<i>Acute Tox. 4</i>)	H302: Harmful if swallowed.	
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	
STOT-repeated exposure (<i>STOT RE 2</i>)	H373: May cause damage to organs through prolonged or repeated exposure. (...)	
Hazardous to the aquatic environment (<i>Aquatic Chronic 3</i>)	H412: Harmful to aquatic life with long lasting effects.	

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

Hazard statements	
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H372	Causes damage to organs through prolonged or repeated exposure. (...)
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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 made-up material.



RAVENOL Racing Gearoil



SPEZIFIKATIONEN API GL-5 ILS

HERSTELLUNGSART VOLLSYNTHETISCH

FREIGABE DREXLER LAMELLEN-SELBSTSPERRDIFFERENTIAL IN BMW ALPINA B5, B6, GT3, GT4, M3, Z4 UND WORLD TOURING CAR CHAMPIONSHIP (WTCC), CHRYSLER VIPER GT3, CORVETTE Z06, FIAT ABARTH, LAMBORGHINI MURCIELAGO, MERCEDES AMG C 63, CLS 63, E 63, SL 63, SLS

ART.-NR. 1221111

1 L | 1221111-001
4 L | 1221111-004
20 L | 1221111-020
20 L | 1221111-B20
60 L | 1221111-060
60 L | 1221111-D60
1000 L | 1221111-700

RAVENOL Racing Gearoil ist ein modernes PAO (Polyalphaolefin) basiertes, vollsynthetisches Hochleistungs-Racing-Getriebeöl mit spezieller USVO®-Technologie.

RAVENOL Racing Gearoil wurde als Schalt- und Differentialöl für den Einsatz in Rennfahrzeugen entwickelt.

Die USVO®-Technologie bietet höhere Leistung, verbesserten Getriebeschutz und optimierte Getriebesauberkeit für Ihr Fahrzeug.

Spezielle Additive garantieren Limited Slip Eigenschaften, ein hohes Druckaufnahmevermögen, stabile Viskosität, optimalen Verschleißschutz, niedrige Schaumbildung, einwandfreie Schmierung und eine Verringerung der Aufheizung des Getriebes.

RAVENOL Racing Gearoil verfügt über ausgezeichnete Verschleißschutzeigenschaften und ein optimales Viskositäts-Temperaturverhalten.

Anwendungshinweis

RAVENOL Racing Gearoil ist ein vollsynthetisches Racing Getriebeöl auf PAO-Basis für den Einsatz in Lamellen-Selbstsperrdifferentialen von Rennfahrzeugen.

Eigenschaften

RAVENOL Racing Gearoil bietet:

- Einen hochdruckstabilen Schmierfilm auch bei hohen Öltemperaturen und unter hoher Belastung.
- Eine hervorragende Scherstabilität und eine ausgezeichnete thermische Stabilität.
- Ein sehr gutes Viskositäts-Temperatur-Verhalten.
- Eine ausgezeichnete Alterungsbeständigkeit und hohe Oxidationsbeständigkeit.
- Einen sehr guten Verschleißschutz, hervorragende EP-Eigenschaften.
- Eine niedrige Schaumneigung auch bei hohen Drehzahlen.
- Eine gute Verträglichkeit gegenüber Buntmetallen und Dichtungswerkstoffen.



- Ein gutes Schaltverhalten auch bei niedrigen Temperaturen, niedriger Pourpoint.
- Längste Ölwechselintervalle dank exzellenter Scherstabilität.
- Reduzierte Getriebegeräusche durch minimierte Vibrationen auch bei heißem Öl durch den gut haftenden Schmierfilm und das hervorragende LS-Additiv.

Eigenschaften	Einheit	Daten	Prüfung nach
Dichte bei 20°C	kg/m ³	864,0	EN ISO 12185
Aussehen/Farbe		blau	visuell
Viskosität bei 100°C	mm ² /s	27	DIN 51562-10
Brookfield Viskosität	mPa*s	144.600	ASTM D 2983
Flammpunkt	°C	204	DIN ISO 2592
Cu-Korrosion		1a	ASTM D130

Alle Angaben entsprechen nach bestem Wissen dem derzeitigen Stand der Erkenntnisse und unserer Entwicklung. Änderungen bleiben vorbehalten. Alle Bezugnahme auf DIN-Normen dienen nur der Warenbeschreibung und stellen keine Garantie dar. Bei vorliegenden Problemfällen technische Beratung anfordern.

Stand: 27. Januar 2021