





according to Regulation (EC) No 1907/2006

Manual Transmission Oil

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

Product group: Technical oils

Catalogue-no.: 19 40 004

Getriebeöl Schaltgetriebe

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Huile d'engrenage boîte de vitesse

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

Use of the substance/mixture

Used in the automobile industry

1.3. Details of the supplier of the safety data sheet

Company name: Opel Automobile GmbH
Place: D 65423 Rüsselsheim am Main

Telefax: +49-6142/ 749-503

e-mail: OPEL-helpdesk@ifz-berlin.de

Responsible Department: IFZ Ingenieurbüro und Consulting GmbH

Telefon: +49 30 2904897-10 Telefax: +49 - 30 / 2904897-20

1.4. Emergency telephone Internationale Hotline: +49 6131 19240

number: United Kingdom +44 870 600 626 / 0870 600 6266

Further Information

No more data.

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

Precautionary statements

P273 Avoid release to the environment.
P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Special labelling of certain mixtures

EUH208 Contains reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol,

heptyl derivatives. May produce an allergic reaction.

EUH210 Safety data sheet available on request.

2.3. Other hazards

Drying out of the skin due to defatting. Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mineral oil: IP 346 DMSO extract < 3%, additive





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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
157707-86-3	Dec-1-ene, trimers, hydrogenated			50 - 75 %
	500-393-3		01-2119493949-12	
	Asp. Tox. 1; H304			
	Base oil – not specified (EINECS-NR. see below)			3 - 5 %
	*			
	Asp. Tox. 1; H304			
68909-93-3	Phosphorus dithionic acid, O,O-di-alkyl ester (C1-C14), zinc salt			1 -< 2.0 %
	272-723-1		01-2119493633-31	
	Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 2; H315 H319 H411			
	Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives			0.1 - < 1.0 %
	939-460-0		01-2119971727-23	
	Flam. Liq. 3, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1B, Aquatic Chronic 3; H226 H315 H318 H317 H412			

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

Further Information

* Contains one or more of the following EINECS numbers:

EC No. 265-157-1, REACH No. 01-2119484627-25,

EC No. 265-169-7, REACH No. 01-2119471299-27,

EC No. 265-158-7, REACH No. 01-2119487077-29,

EC No. 265-159-2, REACH No. 01-2119480132-48.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove and wash contaminated clothing before re-use. In case of feeling unwell: Obtain medical attention. Show this safety data sheet to the doctor in attendance. If unconscious, place the person in the recovery position and seek medical advice immediately. Do not administer liquids to the unconscious person and avoid vomiting.

Protection is needed for the First Aider. (protective gloves, chemical-resistant; safety glasses)

If by mouth to mouth use rescuer protection (pocket mask, etc.).

Eye wash fountains and safety showers must be easily accessible.

After inhalation

Move out of dangerous area. Move to fresh air. Lay the affected person down, and keep her or him warm and calm. If symptoms persist, call a physician.

After contact with skin

Wash contaminated skin areas thoroughly with soap and water. Take off contaminated clothing and shoes immediately. Wash skin with soap and water or special cleanser. Do not use solvents or thinners. In the case of skin irritation or allergic reactions see a physician.

After contact with eyes

Rinse with plenty of water immediately, also under the eyelids, for at least 15 minutes. Remove contact lenses after the first 1 - 2 minutes and continue flushing. Keep eye wide open while rinsing. Consult an ophthalmologist.







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After ingestion

Do not induce vomiting without medical advice. If victim is conscious: Rinse mouth. If symptoms persist, call a physician.

If unconscious, place the person in the recovery position and seek medical advice immediately. Never give anything by mouth to an unconscious person. If swallowed or in the event of vomiting, risk of product entering the lungs.

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

Large concentrations of vapour or oil mist can be irritating to the mucous membranes and respiratory tract. Temporary irritation of the eyes possible. (redness) Prolonged skin contact can lead to defatting of the skin or to irritation. Drying out of the skin due to defatting. Skin contact with the product may cause acne. May produce an allergic reaction. After swallowing: gastrointestinal disturbance (nausea, diarrhoea). See also section 11.

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

Symptomatic treatment (decontamination and vital functions). If necessary, contact poisson centre.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), foam, dry powder.

Unsuitable extinguishing media

High volume water jet.

5.2. Special hazards arising from the substance or mixture

Risk of bursting if heated. In sealed containers the internal pressure will rise.

Depending on the conditions of the fire, the following combustion products could be formed/ given off: carbon dioxide (CO2), carbon monoxide (CO). The combustion gases are partially condensed with the water used to extinguish the fire and end up as a contaminant in this water.

5.3. Advice for firefighters

Secure the danger area. Evacuate personnel to safe areas. Remove intact containers immediately from the dangerous area and/or cool them with water. Only to be handled by trained personnel.

Special protective equipment for firefighters:

In the event of fire, wear self-contained breathing apparatus. Complete protection suit and compressed air breathing apparatus. Clothing for firefighters which comply with the European norm EN 469 (including helmet, protective boots, protective gloves) provide a basic protection for accident with chemicals.

Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus.

Additional information

Prevent extinguishing water used by the fire department, or any other forms of the diluted product, from ending up in surface water or drinking water reservoirs. Do not let product enter drains. Contaminated extinguishing water and soil must be disposed of in accordance with official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Secure the danger area. Evacuate personnel to a safe area. Keep unprotected people away. Slipping hazard due to leakage. Avoid contact with skin and eyes. Do not breathe in vapours or spray mist. Ensure adequate ventilation, especially in confined areas. Wear personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment.

Higher exposure: Wear self-contained breathing apparatus and chemical protective suit at all times. Chemical-resistant safety shoes or boots.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. The spread of the product is to be prevented by oil barriers





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or dikes. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Contact the responsible authority immediately if the product ends up in the soil, a body of water, or the sewer system. In case of an accident or when the street is contaminated with the product, notify the fire department and police department, and when necessary, the water protection authorities.

6.3. Methods and material for containment and cleaning up

Seal discharge point, if possible without danger. Contain the product immediately by taking suitable action. Small amounts: Adsorption in inert material (e.g. sand, kieselguhr, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Large quantities: Avoid subsoil penetration. Prevent product from entering drains. Spilled or leaking material is to be soaked up with non-flammable absorbent materials (sand, soil, diatomaceous earth) and put in containers. Shovel or sweep up. In the event of large-scale leakage, pump into suitable and properly labeled containers. Use a spark-free tool. Dispose of the material collected according to regulations. Offer surplus and non-recyclable solutions to a licensed disposal company.

6.4. Reference to other sections

Suitable protective equipment: See section 8.

Dispose of as described in section 13.

See also section 1, 5, 12.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear personal protective equipment. Use only in well-ventilated areas. Do not inhale vapours or smoke of heated product. Avoid contact with skin, eyes and clothing. When using, do not eat, drink, or smoke. Wash hands before breaks and immediately after handling the product. Wash contaminated skin areas thoroughly with soap and water. Avoid spillage and leakage due to the risk of slipping.

Advice on protection against fire and explosion

Avoid any length of exposure at increased temperature.

Cleaning cloths, paper or other materials that are used for absorption can become a potential fire hazard. Collect and safely dispose in closed, non-flammable containers after use.

Further information on handling

Contaminated work clothing should not be allowed out of the workplace. When handling the product, follow hygiene and safety precautions. See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store in compliance with the local regulations. Store in original container. Keep containers tightly closed in a dry, cool, and well-ventilated place. Avoid contamination with incompatible materials. Protect from heat and direct sunlight. The product may only come into contact with suitable materials. Only use hydrocarbon-resistant containers, caulk, pipelines,... Do not use unlabelled containers. Already opened containers should be closed thoroughly and should be stored upright in order to prevent leakage.

Advice on storage compatibility

See section 10.

Further information on storage conditions

Smoking in the storage rooms is forbidden. Store sealed in the original container.

Local regulations concerning handling and storage of water polluting products have to be followed.

7.3. Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters





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Additional advice on limit values

PNEC-values: No data available. DNEL-values: No data available.

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation and/or exaust ventilation. Follow the maximum workplace concentration values. When the concentration in the air is over the maximum occupational exposure limit, an approved respiratory protection apparatus must be worn.

Personal protection equipment should comply with the relevant standards, be suitable for purpose, in good condition and maintained as specified.

Protective and hygiene measures

A high standard of personal hygiene is required. Do not eat, drink, smoke or take snuff at work. Avoid prolonged and intensive skin contact. Remove all contaminated clothes and shoes. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Articles impregnated with the product are to be disposed of immediately (cloth, paper, absorbent material). Regular cleaning of equipment, work area and clothing. Eye wash fountains and safety showers must be easily accessible.

Eye/face protection

Safety glasses with side-shields (EN 166).

Hand protection

Repeated or prolonged exposure: Protective gloves, chemical-resistant. (EN 420, EN 374)

The manufacturer recommends the following glove materials: nitrile rubber. Penetration time of the glove material: 240 min - > 480 min, layer thickness: > 0.35 mm. Safety gloves should be selected for the actual conditions of use and in accordance with the instructions for use provided by the manufacturer.

Please note that the daily use of a chemical glove in practice may be considerably shorter than the permeation time calculated in EN 374 as a result of many different factors (for example temperature). Use tested protective gloves. Protective gloves should be replaced immediately if damaged or in case of signs of wear.

Skin protection

Wear suitable protective clothing. Remove and wash contaminated clothing before re-use. No rings, watches or similar things should be worn. Product residues can remain and, therefore, can trigger skin reactions.

Light protective clothing: Anti-static clothing made of natural fibres (cotton) or heat-resistant synthetic fibres. (Overalls)

Higher exposure: Chemical resistant apron, complete suit protection against chemicals, boots.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. (EN 529) If necessary: Respirator with combination filter for vapour/particulate. Respirator with AP filter (boiling point/range: > 65°C) - EN 14387. Higher exposure: Self-contained breathing apparatus. The respiratory protective equipment should be selected considering the local working conditions. See information supplied by the manufacturer.

Environmental exposure controls

Emission from ventilation and process equipment should be tested to make sure that it fulfils the requirements of environmental protection regulation. Should not be released into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid

Colour: clear, amber colour

Odour: oily

Test method





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pH-Value: No data available.

Changes in the physical state

Melting point:No data available.Initial boiling point and boiling range:No data available.Pour point:-66 °CFreezing point temperature:No data available.

Flash point: >200 °C COC - Cleveland Open Cup

Sustaining combustion: No data available

Flammability

Solid: No data available.

Gas: No data available.

Explosive properties

No data available.

Lower explosion limits:

Upper explosion limits:

No data available.

Ignition temperature:

No data available.

Auto-ignition temperature

Solid: No data available.
Gas: No data available.
Decomposition temperature: No data available.

Oxidizing properties

No data available.

Vapour pressure:

Density (at 15 °C):

Vapour pressure:

No data available.

<1 g/cm³</p>
Water solubility:

insoluble

Solubility in other solvents

No data available.

Partition coefficient:

Viscosity / dynamic:

No data available.

No data available.

No data available.

29-33 (40°C) / 6-6.4 (100°C) mm²/s

Vapour density:

No data available.

Evaporation rate:

No data available.

9.2. Other information

Solid content:

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions occur under normal storage conditions and in normal use.

Polymerization: None if used correctly.





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10.4. Conditions to avoid

Keep away from heat and sources of ignition. Keep away from sparks and flames.

10.5. Incompatible materials

Incompatible with oxidising agents.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

Further information

Thermal decomposition can lead to release of irritating gases and vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No data available.

Acute toxicity

No data available.

Irritation and corrosivity

Inhalation:

Because of the low volatility, inhalation of the product is unlikely at normal surrounding temperatures. Can be hazardous to the health in the event of vapour, fog, or smoke formation during use if these are inhaled. Large concentrations of vapour or oil mist can be irritating to the mucous membranes and respiratory tract.

Eye contact:

Temporary irritation of the eyes possible.

Skin contact:

Prolonged skin contact may defat the skin and produce dermatitis. Repeated exposure may cause skin dryness or cracking.

Ingestion:

gastrointestinal disturbance (nausea, diarrhoea).

Sensitising effects

Contains reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

None known.

STOT-single exposure

No data available.

STOT-repeated exposure

Inhalation of aerosol may cause irritation to the upper respiratory tract.

Chronic, intensive skin contact may cause dermatitis. Drying out of the skin due to defatting.

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Aspiration hazard

Dec-1-ene, trimers, hydrogenated:

If swallowed or in the event of vomiting, risk of product entering the lungs. May be fatal if aspiration.

SECTION 12: Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Not readily biologically degradable.





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12.3. Bioaccumulative potential

Bioaccumulation is not assumed.

12.4. Mobility in soil

If the product gets into the earth it remains mobile and can damage the ground water. Insoluble in water. The product floats on (waste) water.

12.5. Results of PBT and vPvB assessment

PBT: not applicable. vPvB: not applicable.

12.6. Other adverse effects

Danger to drinking water already by leakage of small amounts into the subsoil. May form an oil film that cause the oxygen content to fall, thrus harming the aquatic ecosystem.

Further information

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Disposal in accordance with the official regulations. Recovery or recycling, if possible. Offer surplus and non-recyclable solutions to a licensed disposal company. Do not flush into surface water or sanitary sewer system.

Waste code numbers are a recommendation, since the intended use by the consumer allows a final assignment.

Waste disposal number of waste from residues/unused products

OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 05, 12 AND 19); waste engine, gear and lubricating oils; other engine, gear and

lubricating oils; hazardous waste

Waste disposal number of used product

130208 OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN

CHAPTERS 05, 12 AND 19); waste engine, gear and lubricating oils; other engine, gear and

lubricating oils; hazardous waste

Waste disposal number of contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately

collected municipal packaging waste); plastic packaging

Contaminated packaging

Disposal in accordance with the official regulations. Packaging can be sent for recycling after being emptied and cleaned.

Unclean packing materials, just as the empty containers: Handle and open container with care. Emtied containers can contain residues of product. Empty containers can contain flammable and explosive vapours. Do not burn, or use a cutting torch on the empty drum. The containers must be sealed, marked and disposed of safely. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. Prevent leakage.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:not regulated14.2. UN proper shipping name:not regulated14.3. Transport hazard class(es):not regulated





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14.4. Packing group: not regulated

Other applicable information (land transport)

Not classified as dangerous regarding transport regulations.

Inland waterways transport (ADN)

14.1. UN number:not regulated14.2. UN proper shipping name:not regulated14.3. Transport hazard class(es):not regulated14.4. Packing group:not regulated

Other applicable information (inland waterways transport)

Not classified as dangerous regarding transport regulations.

Marine transport (IMDG)

14.1. UN number:not regulated14.2. UN proper shipping name:not regulated14.3. Transport hazard class(es):not regulated14.4. Packing group:n.d.a.

Other applicable information (marine transport)

Not classified as dangerous regarding transport regulations.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:not restricted14.2. UN proper shipping name:not restricted14.3. Transport hazard class(es):not restricted

14.4. Packing group: n.d.a.

Other applicable information (air transport)

Not classified as dangerous regarding transport regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No data available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not classified as dangerous regarding transport regulations.

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

No Substances of Very High Concern (SVHC) according REACH Articel 57.

National regulatory information

Additional information

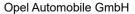
The national regulations have to be complied with as necessary.

15.2. Chemical safety assessment

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

SECTION 16: Other information

Changes







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Section: 1, 2, 4, 5, 6, 7, 8, 9, 11, 12, 16

Abbreviations and acronyms

n.a. = not applicable

n.d. = not determined

n.d.a. = no data available

ATE = Acute Toxicity Estimate

DNEL = Derived No Effect Level

PNEC = Predicted No-Effect Concentration

NOEL = No Observed Effect Level

NOEC = No-Observed-Effect-Concentration

NOAEL = No Observed Adverse Effect Level

LOAEL = Lowest Observed Adverse Effect Level

SADT = Self-Accelerating decomposition temperature

SVHC = substance of very high concern

VOC = Volatile organic compounds

IUCLID = International Uniform Chemical Information Database

OECD = Organization for Economic Co-operation and Development

EPA = Environmental Protection Agency

RTECS = Registry of Toxic Effects of Chemical Substances

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

CLP = Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

EINECS = European Inventory of Existing Commercial Chemical Substances

ECHA = European Chemicals Agency

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

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.

EUH208 Contains reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol,

heptyl derivatives. May produce an allergic reaction.

EUH210 Safety data sheet available on request.

Further Information

The information is based on present levels of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The product is to be used exclusively for the applications named in the technical data sheet or in the processing instructions.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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