



Gamma Permiline Gear Oil 320

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 6/1/2017 Supersedes: 6/1/2015

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

1.1. Product identifier

Product form	: Mixture
Product name	: Gamma Permiline Gear Oil 320
Product code	: T7313
Type of product	: Lubricants, Transmission Oils.
Synonyms	: Industrial Gear Oils
Product group	: Blend

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

1.2.1. Relevant identified uses

Intended for general public	
Main use category	: Industrial use, Professional use
Industrial/Professional use spec	: Functional Fluids Distribution Formulation & (re)packing of substances and mixtures Used in closed systems
Function or use category	: Functional Fluids

1.2.2. Uses advised against

Restrictions on use	: Comply with instructions for use (refer to technical sheet)
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1.3. Details of the supplier of the safety data sheet

Supplier

QUANTUM LUBRICANTS

G. Karamichalis & Co EE

Dim. Gounari 35

165 62 Glyfada - Attiki

Tel: 0030 210 963 85 10

quantum@quantum-oils.com

1.4. Emergency telephone number

Emergency number	: Unified emergency number: +30 210 7793777
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

Precautionary statements (CLP)	: P101 - If medical advice is needed, have product container or label at hand P102 - Keep out of reach of children P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
EUH-statements	: EUH210 - Safety data sheet available on request EUH208 - Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched). May produce an allergic reaction
Security closing plug for children	: Not applicable
Tactile warning	: Not applicable

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2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated heavy paraffinic	(CAS-No.) 64742-54-7 (EC-No.) 265-157-1 (REACH-no) 01-2119484627-25-0035; 01-2119484627-25-0025; 01-2119471299-27-0019	0 - 100	Expl. Not classified
Distillates (petroleum), solvent-dewaxed heavy paraffinic	(CAS-No.) 64742-65-0 (EC-No.) 265-169-7 (REACH-no) 01-2119471299-27-0016; 01-2119471299-27-0003	0 - 100	Not classified
Residual oils (petroleum), solvent-dewaxed	(CAS-No.) 64742-62-7 (EC-No.) 265-166-0 (REACH-no) 01-2119489287-22; 01-2119480472-38-0013; 01-2119480472-38-0004; 01-2119480472-38-0020	0 - 100	Expl. Not classified
Bis(nonylphenyl)amine	(CAS-No.) 36878-20-3 (EC-No.) 253-249-4 (REACH-no) 01-2119488911-28	0.15 - 0.4	Aquatic Chronic 4, H413
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	(EC-No.) 931-384-6 (REACH-no) 01-2119493620-38	< 0.15	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411

Comments : Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If medical advice is needed, have product container or label at hand. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Get immediate medical advice/attention.

First-aid measures after skin contact : Wash skin with plenty of water. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : May cause drowsiness or dizziness. May cause headache, nausea and irritation of respiratory tract.

Symptoms/effects after skin contact : Contact during a long period may cause light irritation. Repeated exposure may cause skin dryness or cracking. May cause an allergic skin reaction.

Symptoms/effects after eye contact : May cause slight irritation. redness, itching, tears.

Symptoms/effects after ingestion : Ingestion may cause nausea and vomiting. Risk of lung oedema.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : In case of fire and/or explosion do not breathe fumes.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Eliminate all ignition sources if safe to do so. Evacuate area.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information : On exposure to high temperature, may decompose, releasing toxic gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Clean up any spills as soon as possible, using an absorbent material to collect it. Eliminate every possible source of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist, vapours.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Ventilate area. Stop release. Cover spill with non combustible material, e.g.: sand/earth. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations. Use only non-sparking tools.
Storage conditions : Store in a well-ventilated place. Keep cool.
Incompatible products : Oxidizing agent. Strong acids. Strong bases.
Incompatible materials : Sources of ignition.

7.3. Specific end use(s)

Product information.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Gamma Permiline Gear Oil 320		
EU	IOELV TWA (mg/m ³)	5 mg/m ³
EU	IOELV STEL (mg/m ³)	10 mg/m ³
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)		
EU	IOELV TWA (mg/m ³)	5 mg/m ³

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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)		
EU	IOELV STEL (mg/m ³)	10 mg/m ³
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)		
EU	IOELV TWA (mg/m ³)	5 mg/m ³
EU	IOELV STEL (mg/m ³)	10 mg/m ³
Residual oils (petroleum), solvent-dewaxed (64742-62-7)		
EU	IOELV TWA (mg/m ³)	5 mg/m ³
EU	IOELV STEL (mg/m ³)	10 mg/m ³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Gloves. Protective clothing. Protective goggles.

Hand protection:

protective gloves: neoprene gloves, PVA. Chemical resistant PVC gloves (to European standard EN 374 or equivalent). EN 420

Eye protection:

Safety glasses. EN 166. EN 168

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 405



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: brown.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: -15 °C
Boiling point	: > 315 °C
Flash point	: 260 °C
Auto-ignition temperature	: > 315 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: < 10 Pa
Relative vapour density at 20 °C	: > 1
Relative density	: No data available
Density	: 0.895 g/ml
Solubility	: soluble in most organic solvents. insoluble in water.
Log Pow	: No data available
Viscosity, kinematic	: 320 cSt @40°C
Viscosity, dynamic	: No data available

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Explosive properties : Not applicable.
Oxidising properties : Not applicable.
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 401 method)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402 method)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (OECD 403 method)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 401 method)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402 method)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (OECD 403 method)

Residual oils (petroleum), solvent-dewaxed (64742-62-7)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 401 method)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402 method)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (OECD 403 method)

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Gamma Permiline Gear Oil 320	
Viscosity, kinematic	320 mm ² /s @40°C

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

IARC group : 3

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LC50 fish 1	> 100 mg/l (OECD 203 method)
EC50 Daphnia 1	> 10000 mg/l (OECD 202 method)
EC50 72h algae (1)	> 1000 mg/l (OECD 201 method)
NOEL, aquatic invertebrates, Chronic	< 1 mg/l (21 days, (OECD 211 method))
NOEL, algae, Chronic	> 100 mg/l (72 Hours, (OECD 201 method))
NOEL, microorganisms, Chronic	> 1.93 mg/l (10 minutes, DIN 38412)
NOEL, daphnia, Chronic	> 10 mg/l (21 days)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 fish 1	> 100 mg/l (OECD 203 method)
EC50 Daphnia 1	> 10000 mg/l (OECD 202 method)
EC50 72h algae (1)	> 1000 mg/l (OECD 201 method)
NOEL, aquatic invertebrates, Chronic	< 1 mg/l (21 days, (OECD 211 method))
NOEL, algae, Chronic	> 100 mg/l (72 Hours, (OECD 201 method))
NOEL, microorganisms, Chronic	> 1.93 mg/l (10 minutes, DIN 38412)
NOEL, daphnia, Chronic	> 10 mg/l (21 days)

Residual oils (petroleum), solvent-dewaxed (64742-62-7)	
LC50 fish 1	> 100 mg/l (OECD 203 method)
EC50 Daphnia 1	> 10000 mg/l (OECD 202 method)
EC50 72h algae (1)	> 1000 mg/l (OECD 201 method)
NOEL, aquatic invertebrates, Chronic	< 1 mg/l (21 days, (OECD 211 method))
NOEL, algae, Chronic	> 100 mg/l (72 Hours, (OECD 201 method))
NOEL, microorganisms, Chronic	> 1.93 mg/l (10 minutes, DIN 38412)
NOEL, daphnia, Chronic	> 10 mg/l (21 days)

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	
LC50 fish 1	> 19 mg/l (OECD 203 method)
EC50 other aquatic organisms 1	2433 mg/l (OECD 209 method)

12.2. Persistence and degradability

Gamma Permiline Gear Oil 320	
Persistence and degradability	Not readily biodegradable, according to appropriate OECD test due to properties of several components.

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Persistence and degradability	Not readily biodegradable, according to appropriate OECD test due to properties of several components.
Biodegradation	< 32 % (OECD 301B method)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Persistence and degradability	Not readily biodegradable, according to appropriate OECD test due to properties of several components.
Biodegradation	< 32 % (OECD 301B method)

Residual oils (petroleum), solvent-dewaxed (64742-62-7)	
Persistence and degradability	Not readily biodegradable, according to appropriate OECD test due to properties of several components.
Biodegradation	< 32 % (OECD 301B method)

12.3. Bioaccumulative potential

Gamma Permiline Gear Oil 320	
Bioaccumulative potential	Bioaccumulative potential.

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Log Kow	3.5 - 6 Moderately bioaccumulative

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Log Kow	3.5 - 6 Moderately bioaccumulative

Residual oils (petroleum), solvent-dewaxed (64742-62-7)	
Log Kow	3.5 - 6 Moderately bioaccumulative

12.4. Mobility in soil

No additional information available

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12.5. Results of PBT and vPvB assessment

Gamma Permiline Gear Oil 320	
PBT: not relevant – no registration required	
vPvB: not relevant – no registration required	
Component	
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	PBT: not relevant – no registration required vPvB: not relevant – no registration required
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	PBT: not relevant – no registration required vPvB: not relevant – no registration required
Residual oils (petroleum), solvent-dewaxed (64742-62-7)	PBT: not relevant – no registration required vPvB: not relevant – no registration required

12.6. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.
Product/Packaging disposal recommendations : Avoid release to the environment.
European List of Waste (LoW) code : 13 02 05* - mineral-based non-chlorinated engine, gear and lubricating oils

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : Not regulated
UN-No. (IMDG) : Not regulated
UN-No. (IATA) : Not regulated
UN-No. (ADN) : Not regulated
UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not regulated
Proper Shipping Name (RID) : Not regulated

14.3. Transport hazard class(es)

ADR
Transport hazard class(es) (ADR) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

ADN
Transport hazard class(es) (ADN) : Not regulated

RID
Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated
Packing group (ADN) : Not regulated

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Packing group (RID) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other 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
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BCF	Bioconcentration factor
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development

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PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Other information : None.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Expl. Not classified	Explosive Not classified
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H411	Toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life
EUH208	Contains . May produce an allergic reaction
EUH210	Safety data sheet available on request

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product