

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

SECTION 1. IDENTIFICATION

Product name : SynGear PS FG-460
Article-No. : 340242
Other means of identification : No data available

Manufacturer or supplier's details

Company name of supplier : Klüber Lubrication NA LP
9010 County Road 2120
Tyler, Texas 75707
USA
Phone: +1 903 534 8021
Fax: +1 903 581 4376
info@us.kluber.com

Klüber Lubrication NA LP
32 Industrial Drive
Londonderry, NH 03053
USA
Phone: +1 603 647 4104
Fax: +1 603 647 4106
info@us.kluber.com

E-mail address of person responsible for the SDS : mcm@us.kluber.com

Emergency telephone number : +1 517 545 7070 NCEC

Recommended use of the chemical and restrictions on use

Recommended use : Lubricating oil
Restrictions on use : Restricted to professional users.

SECTION 2. HAZARDS IDENTIFICATION


GHS classification in accordance with the Hazardous Products Regulations

Reproductive toxicity : Category 2

GHS label elements

SynGear PS FG-460

Version 3.0	Revision Date: 2024-09-03	Date of last issue: 2024-05-16 Date of first issue: 2021-10-18	Print Date: 2024-09-03
----------------	------------------------------	---	---------------------------

Hazard pictograms : 

Signal word : Warning

Hazard statements : Suspected of damaging fertility.

Precautionary statements : **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
IF exposed or concerned: Get medical advice/ attention.

Storage:
Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Mineral oil.
Polymer

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	Trade secret ($\geq 0.1 - < 1$ *)

* Actual concentration or concentration range is withheld as a trade secret

SynGear PS FG-460

Version 3.0	Revision Date: 2024-09-03	Date of last issue: 2024-05-16 Date of first issue: 2021-10-18	Print Date: 2024-09-03
----------------	------------------------------	---	---------------------------

SECTION 4. FIRST AID MEASURES

- If inhaled : Obtain medical attention.
Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
If eye irritation persists, consult a specialist.
- If swallowed : Move the victim to fresh air.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do NOT induce vomiting.
Obtain medical attention.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : None known.
No symptoms known or expected.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet

SynGear PS FG-460

Version 3.0	Revision Date: 2024-09-03	Date of last issue: 2024-05-16 Date of first issue: 2021-10-18	Print Date: 2024-09-03
----------------	------------------------------	---	---------------------------

- Hazardous combustion products : Carbon oxides
Nitrogen oxides (NO_x)
- Further information : Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
Exposure to decomposition products may be a hazard to health.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Use personal protective equipment.
Ensure adequate ventilation.
Do not breathe vapours or spray mist.
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours or spray mist.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Wash hands and face before breaks and immediately after handling the product.
Do not get in eyes or mouth or on skin.
Do not get on skin or clothing.
Do not ingest.
Do not repack.
Do not re-use empty containers.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

Conditions for safe storage : Store in original container.
 Keep container closed when not in use.
 Keep in a dry, cool and well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Store in accordance with the particular national regulations.
 Keep in properly labelled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
White mineral oil (petroleum)	8042-47-5	TWA (Mist)	5 mg/m ³	CA AB OEL (2009-04-30)
		STEL (Mist)	10 mg/m ³	CA AB OEL (2009-04-30)
		TWAEV (Mist - Inhalable dust)	5 mg/m ³	CA QC OEL (2022-04-13)
		TWA (Mist)	1 mg/m ³	CA BC OEL (2021-01-04)
		TWA (Inhalable particulate matter)	5 mg/m ³	ACGIH (2013-03-01)

Engineering measures : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type A-P

Hand protection

Material : Nitrile rubber

Break through time : > 10 min

Protective index : Class 1

Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

SynGear PS FG-460

Version 3.0	Revision Date: 2024-09-03	Date of last issue: 2024-05-16 Date of first issue: 2021-10-18	Print Date: 2024-09-03
----------------	------------------------------	---	---------------------------

- Eye protection : Safety glasses with side-shields
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : colourless
- Odour : characteristic
- Odour Threshold : No data available
- pH : Not applicable
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : ≥ 210 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : Not applicable
- Self-ignition : No data available
- Upper explosion limit / Upper flammability limit : No data available

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.873 (20 °C)
Reference substance: Water
The value is calculated

Bulk density : No data available

Solubility(ies)
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : 480 mm²/s (40 °C)

Explosive properties : Not explosive

Oxidizing properties : No data available

Sublimation point : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : No conditions to be specially mentioned.

Incompatible materials : No materials to be especially mentioned.

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Remarks: This information is not available.

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Remarks: This information is not available.

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Remarks : This information is not available.

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation
Method : OECD Test Guideline 405

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Guinea pig
Assessment : Did not cause sensitisation on laboratory animals.
Method : OECD Test Guideline 406
Result : Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available
Genotoxicity in vivo : Remarks: No data available

Carcinogenicity

Product:

Remarks : No data available

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available
Effects on foetal development : Remarks: No data available

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Reproductive toxicity - Assessment : - Fertility -
Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

SynGear PS FG-460

Version 3.0	Revision Date: 2024-09-03	Date of last issue: 2024-05-16 Date of first issue: 2021-10-18	Print Date: 2024-09-03
----------------	------------------------------	---	---------------------------

STOT - single exposure

Product:

Remarks : No data available

STOT - repeated exposure

Product:

Remarks : No data available

Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

Product:

This information is not available.

Further information

Product:

Remarks : Information given is based on data on the components and the toxicology of similar products.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : Remarks: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 51 mg/l
aquatic invertebrates : Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
plants : Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical : Remarks: No data available
removability

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Biodegradability : aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 1 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Partition coefficient: n-octanol/water : log Pow: 5.2 - 10.82

Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

Other adverse effects

Product:

Additional ecological information : Toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of waste product or used containers according to local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(O,O,O-triphenyl phosphorothioate)

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(O,O,O-triphenyl phosphorothioate)

Class : 9
Packing group : III
Labels : Miscellaneous Dangerous Goods
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964
Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(O,O,O-triphenyl phosphorothioate)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

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

Not applicable for product as supplied.

National Regulations

TDG

Not regulated as a dangerous good

Remarks : Shipment by ground under TDG is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

Canadian lists

No substances are subject to a Significant New Activity Notification.

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

SynGear PS FG-460

Version	Revision Date:	Date of last issue: 2024-05-16	Print Date:
3.0	2024-09-03	Date of first issue: 2021-10-18	2024-09-03

Revision Date : 2024-09-03
Date format : mm/dd/yyyy

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.

This safety data sheet applies only to products as originally packed and labelled. The information contained therein may not be reproduced or modified without our express written permission. Any forwarding of this document is only permitted to the extent required by law. Any further, in particular public, dissemination of the safety data sheet (e.g. as a document for download from the Internet) is not permitted without our express written consent. We provide our customers with amended safety data sheets as prescribed by law. The customer is responsible for passing on safety data sheets and any amendments contained therein to its own customers, employees and other users of the product. We provide no guarantee that safety data sheets received by users from third parties are up-to-date. All information and instructions in this safety data sheet have been compiled to the best of our knowledge and are based on the information available to us on the day of publication. The information provided is intended to describe the product in relation to the required safety measures; it is neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and does not justify any contractual legal relationship. The existence of a safety data sheet for a particular jurisdiction does not necessarily mean that import or use within that jurisdiction is legally permitted. If you have any questions, please contact your responsible sales contact or authorized trading partner.