## SYNGEAR FG-460

| Version | Revision Date: | Date of last issue: 2026-02-10 | Print Date: 2026- |
|---|---|---|---|
| 3.2 | 2026-03-04 | Date of first issue: 2021-10-18 | 03-04 |

### SECTION 1. IDENTIFICATION

Product name : SYNGEAR FG-460

Article-No. : 340149

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



a brand of FREUDENBERG

**GHS label elements**

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 : Synthetic hydrocarbon oil

**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** (>= 0.1 - < 1 *) |

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

## SECTION 4. FIRST AID MEASURES

| | | |
|---|---|---|
| If inhaled | : | Obtain medical attention.<br>Remove person to fresh air. If signs/symptoms continue, get medical attention.<br>Keep patient warm and at rest.<br>If unconscious, place in recovery position and seek medical advice.<br>Keep respiratory tract clear.<br>If breathing is irregular or stopped, administer artificial respiration. |
| In case of skin contact | : | Take off all contaminated clothing immediately.<br>Get medical attention immediately if irritation develops and persists.<br>Wash clothing before reuse.<br>Thoroughly clean shoes before reuse.<br>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.<br>If eye irritation persists, consult a specialist. |
| If swallowed | : | Move the victim to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>Keep respiratory tract clear.<br>Do NOT induce vomiting.<br>Obtain medical attention.<br>Rinse mouth with water.<br>Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | : | No symptoms known or expected.<br>Suspected of damaging fertility. |
| 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 |

| | | |
|---|---|---|
| Hazardous combustion products | : | Carbon oxides<br>Nitrogen oxides (NOx) |
| Further information | : | Standard procedure for chemical fires.<br>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.<br>Use personal protective equipment.<br>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.<br>Use personal protective equipment.<br>Ensure adequate ventilation.<br>Do not breathe vapours or spray mist.<br>Refer to protective measures listed in sections 7 and 8. |
| Environmental precautions | : | Do not allow contact with soil, surface or ground water.<br>Prevent further leakage or spillage if safe to do so.<br>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.<br>Avoid contact with skin and eyes.<br>For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Wash hands and face before breaks and immediately after handling the product.<br>Do not get in eyes or mouth or on skin.<br>Do not get on skin or clothing.<br>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.

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**
Contains no substances with occupational exposure limit values.

**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.

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

| | | |
|---|---|---|
| Physical state | : | liquid |
| Colour | : | colourless |
| Odour | : | characteristic |
| Odour Threshold | : | No data available |
| Melting point/ range | : | No data available |
| Boiling point/boiling range | : | > 315 °C |
| Flammability | : | Flammability (solid, gas):<br>Not applicable |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Flash point | : | > 260 °C<br>Method: Cleveland open cup |
| Auto-ignition temperature | : | No data available |
| Self-ignition | : | No data available |
| Decomposition temperature | : | No data available |
| pH | : | Not applicable |
| Viscosity | | |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | ca. 429 mm2/s ( 40 °C) |

| | | |
|---|---|---|
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Vapour pressure | : | < 0.001 hPa (20 °C) |
| Density | : | 0.86 g/cm3 (20 °C) |
| Relative density | : | 0.858 (20 °C)<br>Reference substance: Water<br>The value is calculated |
| Relative vapour density | : | No data available |
| Bulk density | : | No data available |
| Particle characteristics | | |
| Other information | | |
| Evaporation rate | : | No data available |
| 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. |
| Hazardous decomposition products | : | No decomposition if stored and applied as directed. |

## SECTION 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
Based on available data, the classification criteria are not met.

**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<br>Method: OECD Test Guideline 401 |
| Acute dermal toxicity | : | LD50 (Rat): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>Assessment: The substance or mixture has no acute dermal toxicity |

**Skin corrosion/irritation**
Based on available data, the classification criteria are not met.

**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**
Based on available data, the classification criteria are not met.

**Product:**

| | | |
|---|---|---|
| Remarks | : | This information is not available. |

**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**

**Skin sensitisation**

Based on available data, the classification criteria are not met.

**Respiratory sensitisation**

Based on available data, the classification criteria are not met.

**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**

Based on available data, the classification criteria are not met.

**Product:**

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

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Product:**

| | | |
|---|---|---|
| Remarks | : | No data available |

**Reproductive toxicity**

Suspected of damaging fertility.

**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.

**STOT - single exposure**

Based on available data, the classification criteria are not met.

**Product:**

Remarks : No data available

**STOT - repeated exposure**

Based on available data, the classification criteria are not met.

**Product:**

Remarks : No data available

**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Aspiration toxicity**

Based on available data, the classification criteria are not met.

**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

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

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

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

**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

**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.

## SYNGEAR FG-460

| Version | Revision Date: | Date of last issue: 2026-02-10 | Print Date: 2026- |
|---|---|---|---|
| 3.2 | 2026-03-04 | Date of first issue: 2021-10-18 | 03-04 |

### 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) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | 9 |
| Environmentally hazardous | : | yes |

**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**

| | | |
|---|---|---|
| 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 |
| ERG Code | : | 171 |

Marine pollutant : yes(O,O,O-triphenyl phosphorothioate)

**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.

## SECTION 16. OTHER INFORMATION

**Full text of other abbreviations**

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; TECI - 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

| | | |
|---|---|---|
| Revision Date | : | 2026-03-04 |
| Date format | : | yyyy/mm/dd |

|| 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.