

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
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SECTION 1. IDENTIFICATION

Product name : TM-40
Article-No. : 340181
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

32 Industrial Drive
Londonderry, NH 03053
USA
Phone: +1 603 647-4104
Fax: +1 603 647-4106

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

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

Hazard pictograms : 

Signal word : Warning

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

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.
ester oil

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy paraffinic	distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	Trade secret** (>= 60 - < 80 *)
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

** See Section 15 for HMIRA information.

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

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 : Remove contaminated clothing. If irritation develops, get medical attention.
In case of contact, immediately flush skin with plenty of water.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- 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.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : No information available.
None known.
- Notes to physician : No information available.

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
Nitrogen oxides (NOx)
- Further information : Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

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. 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 : Avoid inhalation of vapour or 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.

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.

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	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)	5 mg/m ³	CA QC OEL (2012-11-28)
		STEV (Mist)	10 mg/m ³	CA QC OEL (2012-11-28)
		TWA (Mist)	1 mg/m ³	CA BC OEL (2012-04-20)
		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.

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.

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

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 : ≥ 250 °C
Method: ASTM D 92

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

Relative density : 0.880 (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 : 150 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.

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

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

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:

Distillates (petroleum), hydrotreated heavy paraffinic:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Method: OECD Test Guideline 402

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:

Distillates (petroleum), hydrotreated heavy paraffinic:

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

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

GLP : yes

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.

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

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

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:

Distillates (petroleum), hydrotreated heavy paraffinic:

Species : Guinea pig
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.
GLP : yes

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.

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Carcinogenicity

Product:

Remarks : No data available

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

Reproductive toxicity - Assessment : - Fertility -
No toxicity to reproduction

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.

Repeated dose toxicity

Product:

Remarks : This information is not available.

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

Aspiration toxicity

Product:

This information is not available.

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

No aspiration toxicity classification

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: Harmful 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:

Distillates (petroleum), hydrotreated heavy paraffinic:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

aquatic invertebrates : Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211
GLP: yes

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:

Distillates (petroleum), hydrotreated heavy paraffinic:

Biodegradability : aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 3 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

GLP: yes

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: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

Partition coefficient: n- : log Pow: > 2
octanol/water

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

Partition coefficient: n- : log Pow: > 5
octanol/water

Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among : Remarks: No data available
environmental compartments

Other adverse effects

Product:

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

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

Results of PBT and vPvB assessment : Non-classified vPvB substance Non-classified PBT substance

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

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

- NPRI Components** : Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

TM-40

Version	Revision Date:	Date of last issue: 2021-10-18	Print Date:
2.0	2022-10-14	Date of first issue: 2021-10-18	2022-10-14

Canadian lists

No substances are subject to a Significant New Activity Notification.

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
CA QC OEL / STEV	:	Short-term 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; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United

TM-40

Version 2.0	Revision Date: 2022-10-14	Date of last issue: 2021-10-18 Date of first issue: 2021-10-18	Print Date: 2022-10-14
----------------	------------------------------	---	---------------------------

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 : 2022-10-14
Date format : mm/dd/yyyy

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