

SAFETY DATA SHEET

1. Identification of the hazardous chemical and of the supplier

Product identifier: RENOLIN CHAINLUBE HT B 50

Other means of identification: No data available.

Recommended use of the chemical and restrictions on use

Recommended use: Lubricating fluid

Recommended restrictions: Industrial use only

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: Fuchs Lubricants Co.
Address: 17050 Lathrop Avenue
Harvey, Illinois 60426
Telephone: 708-333-8900
Fax: 708-333-9180

Contact Person: EHS Department
E-mail: sds@fuchs.com

Emergency telephone number: 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin Corrosion/Irritation Category 2

Unknown toxicity - Health

Acute toxicity, oral	8.1 %
Acute toxicity, dermal	8.33 %
Acute toxicity, inhalation, vapor	99.77 %
Acute toxicity, inhalation, dust or mist	99.79 %

Label Elements

Hazard Symbol:



Signal Word:	Warning
Hazard Statement:	H315: Causes skin irritation.
Precautionary Statements	
Prevention:	P264: Wash face, hands and any exposed skin thoroughly after handling. P280: Wear protective gloves.
Response:	P302+P352: IF ON SKIN: Wash with plenty of water. P332+P313: If skin irritation occurs: Get medical advice/attention. P321: Specific treatment (see supplemental first aid instructions on this label). P362+P364: Take off contaminated clothing and wash it before reuse.
Disposal:	P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Polyglycol, Polypropylene glycol monobutyl ether	Trade Secret	60 - 100%
Graphite	7782-42-5	7 - 13%
Molybdenum disulphide	1317-33-5	7 - 13%
Copper	7440-50-8	1 - 5%
Zinc compound	Trade Secret	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Trade secret information:	A specific chemical identity and/or percentage of composition has been withheld as a trade secret.
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4. First-aid measures

Inhalation:	Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.
Skin Contact:	Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.
Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Ingestion: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Get medical attention if symptoms occur.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, fog, CO₂, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

For non-emergency personnel: No data available.

For emergency responders: No data available.

Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Avoid contact with skin. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

Conditions for safe storage, including any incompatibilities: Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Graphite - Respirable fraction.	VLE-PPT	2 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum disulphide - Respirable fraction. - as Mo	VLE-PPT	3 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum disulphide - Inhalable fraction. - as Mo	VLE-PPT	10 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Copper - Fume. - as Cu	VLE-PPT	0.2 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Copper - Dust and mist. - as Cu	VLE-PPT	1 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Mineral oil	VLE-PPT	5 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Crystalline silica - Respirable fraction.	VLE-PPT	0.025 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum compound (insoluble) - Respirable fraction. - as Mo	VLE-PPT	0.5 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Distillates (petroleum), solvent-dewaxed heavy paraffinic	VLE-PPT	5 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

General information:	Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin Protection Hand Protection:	No data available.
Other:	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.
Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	No data available.
Color:	Black
Odor:	Mild petroleum/solvent
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	218.33 °C
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.

Density:	No data available.
Relative density:	1.13
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	> 20.5 mm ² /s (40 °C)

10. Stability and reactivity

Reactivity:	Not reactive during normal use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Causes skin irritation.
Eye contact:	May irritate eyes.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: ATEmix (): > 5000 mg/kg

Dermal

Product: ATEmix (): > 5000 mg/kg

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Graphite LC 50 (Rat): > 2,000 mg/m³

Copper LC 50 (Rat): > 5.11 mg/l

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Polyglycol,	In vitro (Human): Irritating , 1 h Experimental result, Key study
Polypropylene glycol	In vitro (Human): Irritating , 3 min Experimental result, Key study
monobutyl ether	
Graphite	in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study
	In vitro (In vitro): Not irritant , 3 min Experimental result, Supporting study
	in vivo (Rabbit): Not irritant , > 0 - 72 h Experimental result, Key study
	In vitro (In vitro): Not irritant , 1 h Experimental result, Supporting study
Copper	in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study
	in vivo (Rabbit): Not irritant , 1 - 72 h Experimental result, Weight of Evidence study
	(Rabbit): Not irritant , 24 - 72 h Experimental result, Supporting study
Zinc compound	in vivo (Rabbit): Category 2 , 24 - 72 h Experimental result, Key study
	in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Copper	Rabbit: Not irritating EU Rabbit: Not irritating EU Rabbit: Not irritating EU Rabbit, 24 - 72 hrs: Slightly irritating (Not Classified) EU Rabbit: Not irritating EU Rabbit: Not irritating EU Rabbit, 24 - 72 hrs: Slightly irritating (Not Classified) EU Rabbit, 24 - 72 hrs: Slightly irritating (Not Classified) EU Rabbit, 24 - 72 hrs: Slightly irritating (Not Classified) EU Rabbit, 24 - 72 hrs: Slightly irritating (Not Classified) EU Rabbit: Not irritating EU
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Zinc compound	Rabbit, 24 - 72 hrs: Corrosive OECD GHS
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Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Polyglycol, Polypropylene glycol monobutyl ether LC 50 (Fish): 10 mg/l
EC50 (Fish): 100 mg/l

Graphite LC 50 (Fish, 96 h): > 100 mg/l

Molybdenum disulphide LC 50 (Fish, 96 h): 609 - 681.4 mg/l

Copper LC 50 (Killifish (Nothobranchius guentheri), 24 h): 0.033 - 0.045 mg/l
Mortality

Zinc compound LC 50 (Pimephales pomoxis, 96 h): 100 mg/l
LC 50 (Pimephales pomoxis, 96 h): 25 - 50 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Polyglycol, Polypropylene glycol monobutyl ether LC 50 (Scud (Gammarus fasciatus), 96 h): 7.06 - 40.9 mg/l Mortality

Graphite EC50 (Daphnia, 48 h): > 100 mg/l

Molybdenum disulphide EC50 (Daphnia, 48 h): 1,680.4 - 1,776.6 mg/l

Copper EC50 (Water flea (Daphnia obtusa), 24 h): 0.0099 - 0.0303 mg/l Intoxication

Zinc compound EC50 (Daphnia magna, 48 h): 4 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

Graphite EC50 (Algae (Pseudokirchneriella subcapitata), 72 h): > 100 mg/l

Copper	LC 50 (Green algae (Scenedesmus dimorphus), 1 d): 0.0769 mg/l Mortality
Zinc compound	EC50 (Pseudokirchneriella subcapitata (green algae), 96 h): 1 mg/l

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Copper	Blue-green algae (Spirulina platensis), Bioconcentration Factor (BCF): 3.07 (Static)
	Blue-green algae (Anacystis nidulans), Bioconcentration Factor (BCF): 1.49 (Static)
	Blue-green algae (Spirulina platensis), Bioconcentration Factor (BCF): 9.53 (Static)
	Blue-green algae (Anacystis nidulans), Bioconcentration Factor (BCF): 7.81 (Static)
	Blue-green algae (Spirulina platensis), Bioconcentration Factor (BCF): 12.7 (Static)

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Polyglycol, Polypropylene glycol monobutyl ether	No data available.
Graphite	No data available.
Molybdenum disulphide	No data available.
Copper	No data available.
Zinc compound	No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions:

Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated.

IATA

UN number or ID number:	UN 3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.(Copper)
Transport Hazard Class(es):	
Class:	9
Label(s):	9MI (Miscellaneous)
Packing Group:	III
Passenger and cargo aircraft :	964
Excepted quantity	PIN for exception quantity
Environmental Hazards:	Yes
Marine Pollutant	No
Special precautions for user:	Not regulated.
Cargo aircraft only:	Allowed. 964

IMDG

UN number or ID number:	UN 3082
UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Copper)
Transport Hazard Class(es)	
Class:	9
Label(s):	9
EmS No.:	F-A, S-F
Packing Group:	III
Limited quantity	5.00L
Excepted quantity	PIN for exception quantity
Environmental Hazards:	No
Marine Pollutant	No
Special precautions for user:	Not regulated.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

Mexico. Substances subject to reporting for the pollutant release and transfer registry (PRTR)

Not applicable

Mexico. Federal Law for the Control of Chemical Substances Susceptible to Diversion to Manufacturing of Chemical Weapons, Appendix 1: National list of chemical substances

Not applicable

Mexico. Wastewater Discharges - Maximum Limits into Coastal Waters, Dams, Rivers, Soil and Wetlands (NOM-001-ECOL)

Copper	used in agricultural irrigation. used in agricultural irrigation. public urban use public urban use protection of aquatic life protection of aquatic life used in agricultural irrigation. used in agricultural irrigation. public urban use public urban use fishing, navigation and other uses fishing, navigation and other uses recreation recreation estuaries estuaries used in agricultural irrigation. used in agricultural irrigation. natural wetlands natural wetlands Listed.
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Zinc compound	Listed.
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Mexico. Hazardous Chemicals (NOM-028-STPS-2012, System for administration of workplace safety in the process and critical equipment for handling hazardous chemicals, Appendix A, Table A.I)

Not applicable

Mexico. Narcotic Drugs List (General Health Law, Articles 234 & 239, Feb. 7, 1984)

Not applicable

Mexico. Psychotropic Drugs (General Health Law, Feb. 7, 1984, Articles 245 & 254 Bis)

Not applicable

16. Other information, including date of preparation or last revision

Issue Date:	10/04/2022
Revision Information:	10/04/2022: ARGHS_MX
Version #:	1.0
Further Information:	No data available.

Disclaimer:

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.