SAFETY DATA SHEET

1. Identification of the hazardous chemical and of the supplier

Product identifier: RENOLIT ST 80 NLGI 2 1/2

Other means of identification: No data available.

Recommended use of the chemical and restrictions on use

Recommended use: Lubricating grease
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

Acute toxicity (Oral)	Category 5
Acute toxicity (Dermal)	Category 5

Unknown toxicity - Health

Acute toxicity, oral	12.53 %
Acute toxicity, dermal	13.06 %
Acute toxicity, inhalation, vapor	16.6 %
Acute toxicity, inhalation, dust or mist	14.96 %

Label Elements

Hazard Symbol: No symbol

Signal Word: Warning

Hazard Statement: H303+H313: May be harmful if swallowed or in contact with skin.

Precautionary

Statements

Response: P312: Call a POISON CENTER or doctor/ physician if you feel unwell.

Storage: P405: Store locked up.

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 (%)*
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	60 - 100%
Zinc oxide	1314-13-2	1 - 5%
Titanium dioxide	13463-67-7	0.5 - 5%
Mineral oil	64741-88-4	0.5 - 5%
Phosphoric acid esters/amine salt		0.1 - 1%
Amorphous silica	7631-86-9	0.1 - 1%

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

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.

Eye contact: Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

Ingestion: Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

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 with sand or other inert absorbent. Stop the flow of material, if this is without risk.
Environmental Precautions:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling:	Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.
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
Distillates (petroleum), hydrotreated heavy naphthenic	VLE-PPT	5 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Zinc oxide - Respirable fraction.	VLE-PPT	2 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
	VLE-CT	10 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Titanium dioxide	VLE-PPT	10 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Mineral oil	VLE-PPT	5 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Amorphous silica - Respirable dust.	VLE-PPT	3 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (03 2000)
Amorphous silica - Inhalable particulate.	VLE-PPT	10 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (03 2000)
Amorphous silica	VLE-PPT	10 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (03 2000)
Amorphous silica - Inhalable fraction.	VLE-PPT	10 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Amorphous silica - Respirable fraction.	VLE-PPT	3 mg/m3	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: Use personal protective equipment as required.

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:	solid
Form:	Grease
Color:	Beige
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:	210 °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:	0.94
Solubility(ies)	
Solubility in water:	Insoluble
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:	> 22 mm2/s (40 °C, estimated)

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:	This product contains a low concentration of titanium dioxide that is bound in the product matrix. As a consequence, exposure to airborne TiO2 particulates/dusts is not anticipated.
Skin Contact:	Prolonged or repeated skin contact may cause drying, cracking, or irritation. May cause an allergic skin reaction.
Eye contact:	Eye contact is possible and should be avoided.
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 (): 2000 - 5000 mg/kg
Dermal **Product:**	ATEmix (): 2000 - 5000 mg/kg
Inhalation **Product:**	No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic	LC 50 (Rat): > 5,000 mg/l LC 50: > 5,000 mg/l
Zinc oxide	NOEL (Rabbit): 5 mg/m3 LC 50 (Rat): > 1.79 mg/l LC 50 (Mouse): 2,500 mg/m3 LC 50 (Rat): > 5,700 mg/m3 LC 50 (Mouse): > 5.7 mg/l
Titanium dioxide	LC 50 (Rat): > 2.28 mg/l LC 50 (Rat): 6.8 mg/l LC 50 (Rat): > 3.56 mg/l LC 50 (Mouse): > 41 g/m3 LC 50 (Rat): > 6.82 mg/l LC 50 (Rat): 3.43 mg/l LC 50 (Rat): 5.09 mg/l
Mineral oil	LC 50 (Rat): 22 mg/l
Amorphous silica	LC 50 (Rat): 4.9 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

Phosphoric acid esters/amine salt	NOAEL (Rat(Male), Oral): 150 mg/kg (Target Organ(s): Kidney) NOAEL (Rat(Female, Male), Oral): 150 mg/kg (Target Organ(s): Adrenal gland)

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic	in vivo (Rabbit): Not irritant , 72 h Experimental result, Supporting study in vivo (Rabbit): Category 2 , 24 - 72 h Experimental result, Key study
Zinc oxide	In vitro (Human, in vitro test using skin model): Non-corrosive , 3 min Experimental result, Key study in vivo (Mouse): Not irritant Experimental result, Key study in vivo (Guinea pig): Not irritant Experimental result, Key study in vivo (Rabbit): Not irritant Experimental result, Key study
Titanium dioxide	in vivo (Rabbit): Not irritant , 24 h Experimental result, Supporting study
Mineral oil	in vivo (Rabbit): Not irritant , 24 h Experimental result, Supporting study
Amorphous silica	in vivo (Rabbit): Not irritant , 48 h Experimental result, Supporting study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic	Rabbit, 48 h: Not irritant EU Rabbit, 24 h: Not irritant EU Rabbit, 48 h: Not irritant EU Rabbit, 24 h: Not irritant EU
Zinc oxide	Rabbit, 24 - 72 h: Not irritant EU
Titanium dioxide	Rabbit, 24 h: Not irritant EU Rabbit, 1 h: Minimal irritant EU Rabbit, 48 - 72 h: Not irritant EU Rabbit, 1 h: Not irritant EU Rabbit, 48 - 72 h: Not irritant EU Rabbit, 48 - 72 h: Minimal irritant EU Rabbit, 24 - 72 h: Minimal irritant EU Rabbit, 1 h: Not irritant EU Rabbit, 24 h: Not irritant EU Rabbit, 24 h: Minimal irritant EU Rabbit, 24 - 72 h: Not irritant EU
Mineral oil	Rabbit, 24 h: Not irritant EU Rabbit, 48 h: Not irritant EU Rabbit, 48 h: Not irritant EU Rabbit, 24 h: Not irritant EU
Amorphous silica	Rabbit, <= 3 d: Not irritant EU Rabbit, 1 - 5 d: Not irritant EU Rabbit: Not irritant EU Rabbit, 24 h: Not irritant EU Rabbit, 24 h: Not irritant EU Rabbit, 1 - 72 h: Not irritant EU Rabbit, 24 - 72 h: Not irritant EU Rabbit, 72 h: Not irritant EU Rabbit, 48 h: Not irritant EU Rabbit, 24 h: Not irritant EU Rabbit, 48 h: Not irritant EU

Respiratory or Skin Sensitization

Product: May cause an allergic skin reaction.

Carcinogenicity

Product: This product contains a low concentration of titanium dioxide that is bound in the product matrix. As a consequence, exposure to airborne TiO2 particulates/dusts is not anticipated.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Titanium dioxide	Overall evaluation: 2B. Possibly carcinogenic to humans.

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: metal fume fever Lower Respiratory Tract irritation Skin irritation Central Nervous System impairment Eye irritation Upper Respiratory Tract irritation Cochlear impairment kidney damage dizziness headache Skin sensitization Gastro-Intestinal tract irritation Eye (cataract) Blood (hemolytic anemia)

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic	LC 50 (Fish, 96 h): > 100 mg/l
Zinc oxide	LC 50 (Striped bass (Morone saxatilis), 48 h): 0.25 - 2.46 mg/l Mortality
Titanium dioxide	LC 50 (Mummichog (Fundulus heteroclitus), 24 h): > 1,000 mg/l Mortality
Amorphous silica	LC 50 (Zebra Fish, 96 h): 10,000 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic	EC50 (Shrimp (Callianassa australiensis), 48 h): > 100 mg/l
Zinc oxide	LC 50 (Water flea (Daphnia magna), 48 h): 0.098 mg/l Mortality
Titanium dioxide	EC50 (Water flea (Daphnia magna), 48 h): > 1,000 mg/l Intoxication

Mineral oil	EC50 (Daphnia): > 1,000 mg/l
Amorphous silica	EC50 (Daphnia, 24 h): 10,000 mg/l EC50 (Water Flea, 24 h): 1,000 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic	EC50 (Daphnia, 14 d): 0.058 mg/l EC50 (21 d): 0.054 mg/l EC50 (2 d): > 10,000 mg/l

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic	EC50 (Algae (Pseudokirchneriella subcapitata), 72 h): > 100 mg/l
Zinc oxide	EC50 (Algae (Pseudokirchneriella subcapitata), 72 h): 0.042 mg/l
Amorphous silica	EC50 (Algae (Pseudokirchneriella subcapitata), 72 h): 10,000 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.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Distillates (petroleum), hydrotreated heavy naphthenic	No data available.
Zinc oxide	No data available.
Titanium dioxide	No data available.
Mineral oil	No data available.
Phosphoric acid esters/amine salt	No data available.
Amorphous silica	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
Not Regulated.

IMDG
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)
None present or none present in regulated quantities.

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)

Lead compound	Listed.
Cadmium compound	Listed.
Zinc compound	Listed.

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)

Cumene	Threshold: 4600. kg
Ethylbenzene	Threshold: 4600. kg

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:	04/12/2024
Revision Information:	04/10/2024**:** ARGHS_MX
Version #:	1.1
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.