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SAFETY DATA SHEET

1. Identification

Product name RENOCLEAN FZR 1

Other means of identification No data available.

Recommended use: Industrial cleaning fluid

Restrictions on use: Industrial use only

Manufacturer/Importer/Supplier/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: msds@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 4
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1

Unknown toxicity Health

Acute toxicity, oral	7 %
Acute toxicity, dermal	7 %
Acute toxicity, inhalation, vapor	7 %
Acute toxicity, inhalation, dust or mist	7 %

Label Elements

Hazard Symbol:





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Signal Word: Danger

Hazard Statement: Harmful if swallowed.
Causes severe skin burns and eye damage.

Precautionary Statement

Prevention: Do not breathe dust or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a doctor when symptoms persist or in emergency situations. Specific treatment (see the specific response guidance provided herein). Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Hazardous Component(s):

Chemical name	CAS-No.	Concentration
Hexafluorozirconic acid	12021-95-3	3 - 7%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

4. First-aid measures

Ingestion: Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.

Inhalation: Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.



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Skin Contact: Call a physician or poison control center immediately. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

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 pressurize and possibly rupture. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment appropriate for industrial fires.

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.

Methods and material for containment and cleaning up: Absorb spill with an inert material, then place in a container for safe and proper disposal. Dike far ahead of larger spill for later recovery and disposal.



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Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so and protect against releases into the environment. Remediate as appropriate.

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. Do not taste or swallow. Wash hands thoroughly after handling. Use caution when adding this material to water. Add material slowly when mixing with water. Do not add water to the material; instead, add the material to the water. Do not get in eyes, on skin, on clothing.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Exposure Limits

Chemical name	type	Exposure Limit Values	Source
Hexafluorozirconic acid - as Zr	STEL	10 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Hexafluorozirconic acid - as Zr	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Hexafluorozirconic acid - as F	TWA	2.5 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Hexafluorozirconic acid - as F	PEL	2.5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Hexafluorozirconic acid - as Zr	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Hexafluorozirconic acid - Dust.	TWA	2.5 mg/m ³	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)

Protective Measures: Provide easy access to water supply and eye wash facilities. Good general ventilation should be provided. 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.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

Eye Protection: Wear safety glasses with side shields (or goggles).

Skin and Body Protection: Wear chemical-resistant gloves, footwear, and protective clothing appropriate



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for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

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. Contaminated work clothing should not be allowed out of the workplace. Discard contaminated footwear that cannot be cleaned. Avoid contact with skin, eyes, and clothing.

9. Physical and chemical properties

Appearance

Physical state:	Liquid
Form:	No data available.
Color:	Clear
Odor:	Mild
Odor threshold:	No data available.
pH:	2.5
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	Not applicable
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.
Relative density:	1.06
Solubility(ies)	
Solubility in water:	Completely Soluble
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:	No data available.

10. Stability and reactivity

Reactivity: Not reactive during normal use.



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Chemical Stability:	No data available.
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

Ingestion:	Harmful if swallowed.
Inhalation:	Harmful if inhaled.
Skin Contact:	Causes severe skin burns.
Eye contact:	Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

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

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral	
Product:	LD 50 (): 300 - 2000 mg/kg
Dermal	
Product:	Not classified for acute toxicity based on available data.
Inhalation	
Product:	Not classified for acute toxicity based on available data.
Repeated dose toxicity	
Product:	No data available.



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Skin Corrosion/Irritation

Product: No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

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

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

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

General information:

This product has not been evaluated for ecological toxicity or other environmental effects.



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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

UN Number:	UN 3264
UN Proper Shipping Name:	Corrosive liquid, acidic, inorganic, n.o.s.(Hexafluorozirconic acid)
Transport Hazard Class(es)	
Class:	8
Label(s):	8
Packing Group:	II
Marine Pollutant:	No
Special precautions for user:	—

IMDG

UN Number:	UN 3264
UN Proper Shipping Name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(Hexafluorozirconic acid)
Transport Hazard Class(es)	
Class:	8
Label(s):	8
EmS No.:	F-A, S-B
Packing Group:	II
Marine Pollutant:	Not regulated.
Special precautions for user:	—

IATA

UN Number:	UN 3264
Proper Shipping Name:	Corrosive liquid, acidic, inorganic, n.o.s.(Hexafluorozirconic acid)
Transport Hazard Class(es):	
Class:	8
Label(s):	8
Packing Group:	II
Environmental Hazards	Not regulated.
Special precautions for user:	—
Other information	



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Passenger and cargo aircraft: Allowed.
Cargo aircraft only: Allowed.

15. Regulatory information

US Federal Regulations

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No component is regulated by CA Prop 65.

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

Issue Date: 11.05.2015

Revision Date: 11.05.2015

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.