



SAFETY DATA SHEET

SECTION 1: Product and Company Identification

FR3 Friction Reducer

Product type: Oil Additive

Application: Lubrication oil. Not to be misted.

Supplier/Manufacturer: **Lubrication Specialties Inc.**
3975 Morrow Meadows Drive
Mount Gilead, OH 43338
US Phone: (419) 947-2647
Telefax: (415) 946-3554
Email: info@lubricationspecialties.com

Emergency Telephone number:

Within USA and Canada: ChemTel, 24 hrs. +1 (800) 255-3924

Outside USA and Canada:* +1 (703) 741-5970

*Collect calls accepted 24/7

SECTION 2: Hazards Identification

OSHA/WHMIS 2015

Regulatory Status:

This product is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) nor according to the hazard criteria of the Hazardous Product Regulations.

Classification of the substance or mixture:

Not classified

Labeling:

None

Hazard Statement:

None

Precautionary Statement:

P262: Do not get in eyes, on skin, or on clothing.
P302+352: IF ON SKIN: Wash with plenty of soap and water.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P314: Get medical advice/attention if you feel unwell.

SECTION 3: Composition/Information on Ingredients

<u>Ingredient Name</u>	<u>% (Avg)</u>	<u>CAS Number</u>
Proprietary Materials 1	60-70%	Trade Secret
Proprietary Materials 2	15-30%	Trade Secret
Trimethylolpropane Tripelargonate	10%	126-57-8

ANY CONCENTRATION SHOWN AS A RANGE IS TO PROTECT CONFIDENTIALITY OR IS DUE TO BATCH VARIATION

SECTION 4: First Aid Measures

Eyes:	Immediately flush with gentle but large stream of water for 15 min, lifting upper and lower eyelids occasionally. Get medical attention if irritation develops.
Skin:	Wash affected area with soap and water. If itching or redness develops, seek medical attention. Contaminated clothing should be removed immediately and washed before reuse. Contaminated shoes should be discarded.
Inhalation:	Move the person to fresh air. If breathing becomes difficult, contact a physician.
Ingestion:	Do not induce vomiting. If large amounts were swallowed, give water to rinse mouth, give water to drink, and get medical attention if you feel unwell.
Most important symptoms/effects, Acute and delayed:	No known significant effects or critical hazards

SECTION 5: Firefighting Measures

Extinguishing Media:	Water spray, dry chemical, alcohol foam, or carbon dioxide.
Unsuitable extinguishing media:	Water jet.
Special Protective Equipment for firefighters:	Self-contained breathing apparatus and protective clothing when fighting any chemical fire.
Unusual Fire and Explosion Hazards:	In case of fire, containers may explode from internal pressure. Cool with water. May emit toxic fumes of CO and CO ₂ under fire conditions.

SECTION 6: Accidental Release Measures

Personal Precautions:	Avoid contact with skin and eyes. Product is slippery. Avoid falls. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas
Environmental precautions:	P273: Avoid release to the environment Limit leakage with earth or sand. Do not discharge into the drains/surface water/groundwater. Dispose of absorbed material in accordance with local, state and federal regulations.
Methods for containment/ Cleaning up:	Take up with absorbent material (e.g. vermiculite, general purpose binder). Dispose of absorbed material in accordance with local, state, and federal regulations.

SECTION 7: Handling and Storage

Handling:	P261: Avoid breathing mists of product P262: Do not get in eyes, on skin, or on clothing P264: Wash thoroughly after handling P280: Wear protective gloves/eye protection
Storage:	P402+404: Store in a dry place. Store in a closed container P403+233: Store in a well-ventilated place. Keep container tightly closed Protect from moisture. Do not store together with acids.

Keep out of direct sunlight

Avoid storing in containers made from or lined with natural rubber, butyl rubber, ethylene-propylene-diene monomer (EPDM), polystyrene.

General Hygiene Practices: Eating drinking and smoking should be prohibited in areas where this material is handled, stored and processed

Special Packaging Requirements: None

Incompatible Materials or Fire/Explosion Protection: Strong oxidizers, strong acids.

SECTION 8: Exposure Controls/Personal Protection

Occupational exposure limits: Not established.

United States:

Ingredient	CAS#	Exposure limits
Proprietary	Proprietary	OSHA TWA: 5 mg/m ³ ACGIH TWA: 5 mg/m ³ ; STEL 10 mg/m ³ . NIOSH TWA: 5 mg/m ³ ; STEL 10 mg/m ³ 10 hours.

Personal Protective Equipment

Hands:	Use impervious gloves.
Eyes:	Wear safety glasses with side shields.
Skin:	Wear protective clothing.
Respiratory:	Respiratory protection is recommended if ventilation is limited.

Appropriate Engineering Controls: Good ventilation sufficient to control worker exposure to airborne contaminants

Environmental exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation

Other measures: Have access to an eye wash station

SECTION 9: Physical and Chemical Properties

Appearance

Physical State:	Liquid
Color:	Opaque – slightly gray
Odor:	fruity, sweet
Odor threshold:	Not available
pH:	Not available
Melting point:	Not determined
Boiling point:	Not available
Flash point:	>215.6°F (102°C)

Evaporation rate:	Not available
Flammability (solid, gas):	Not available
Lower and upper explosive (flammable) limits:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	.883
Solubility:	Not available
Partition coefficient: n-Octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	11.1 cSt
Volatility:	Not available
VOC (w/w):	Not available

SECTION 10: Stability and reactivity

Reactivity:	No specific test data available
Chemical Stability:	Product is stable under ordinary conditions of use and storage.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Exposure to moist air or water, extreme heat, sources of ignition.
Incompatible Materials:	Strong oxidizers, amine, strong acids.
Hazardous Decomposition Products:	CO _x , Hydrogen sulfides

SECTION 11: Toxicological Information

Likely Routes of Exposure: Dermal, eye, inhalation, ingestion

Acute Toxicity

<u>Ingredient</u>	<u>Result</u>	<u>Species</u>	<u>Dose</u>	<u>Comments</u>
Trimethylolpropane	LD50 Oral	Rat	>2000 mg/kg	-
Tripelargonate	LD50 Oral	Rat	>2000 mg/kg	-
Proprietary	LD50 Dermal	Rat	>2000 mg/kg	-
Proprietary	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Inhalation	Rat	2.18 mg/L/4hr	-

Irritation/Corrosion: May cause mild skin and eye irritation.

Sensitization: No data available

Carcinogenicity: No data available

Specific organ toxicity

Single exposure:	No data available
Repeated exposure:	No data available

Aspiration hazard: No data available

Potential Acute Health Effects: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

No known significant effects or critical hazards.

Delayed Immediate effects and also chronic effects from short and long term exposure:

No known significant effects or critical hazards.

Numerical measures of toxicity: No data available.

SECTION 12: Ecological Information

Toxicity:

<u>Ingredient:</u>	<u>Result:</u>	<u>Species:</u>	<u>Exposure:</u>
Trimethylolpropane Tripelargonate	LC50 >100 mg/L Fresh Water	Fish	96 hrs
Proprietary 2	LC50 4.4 mg/L	Fish (fathead minnow)	96 hr
	EC50 0.8 mg/L	<i>Daphnia magna</i>	48 hr
	ErC50 7.6 mg	Algae (<i>Pseudokirchneriella subcapitata</i>)	96 hr

Persistence and degradability: No data available.

Bioaccumulative potential: No data available

Mobility in Soil: No data available; expected to have some mobility.

Other adverse effects: No known significant effects or critical hazards

SECTION 13: Disposal Considerations

Disposal methods: Disposal of this product should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority. Waste should not be disposed of untreated into the sewer. Empty containers may retain some product residues.

SECTION 14: Transportation Information

US DOT Regulations (Land Transport):

Proper Shipping Name:	Not regulated.	
Hazard Class:	Not regulated.	
UN Number:	Not regulated.	
Packing Group:	Not regulated.	
Label Required:	Not	regulated.
Other Information:	Not regulated.	

IATA/ICAO Regulations (Air Transport):

Proper Shipping Name:	Environmentally Hazardous Substance, liquid, n.o.s. (Proprietary 2)
Hazard Class:	9
UN Number:	UN3082
Packing Group:	III

Environmental Hazard: Marine Pollutant

IMDG/IMO Regulations (Maritime Transport):

Proper Shipping Name: Environmentally Hazardous Substance, liquid, n.o.s. (Proprietary 2)
Hazard Class: 9
UN Number: UN3082
Packing Group: III
Environmental Hazard: Yes

SECTION 15: Regulatory Information

U.S. Federal regulations:

United States inventory (TSCA 8b): All components listed or exempted

SARA 302/304

Composition/information on ingredients: No products were found

SARA 304 RQ: Not applicable

SARA 311/312

Classification: Not applicable

SARA 313: No products were found

SECTION 16: Other Information

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