SAFETY DATA SHEET

POLYSI® Lubricants Issued 06/13/16
PST-609 Revision 1 06/13/16

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **PST-609**
Recommended Use: Lubricant (not for medical purposes)
Company: Fuchs Lubricants Co.
17050 Lathrop Avenue
Harvey, IL 60426, USA
Telephone: 1-708-333-8900 (Business hours)
Emergency Telephone: 1-800-255-3924 (24 hours)

2. HAZARDS IDENTIFICATION

Classification: Not hazardous

Labeling: Symbol: None

Signal Word: None

Hazard statements:
May be irritating to eyes or skin

Precautionary Statements:

Use personal protective equipment as required. Wear safety glasses and gloves.
Avoid contact with eyes.
Non flammable or combustible, but may burn if involved in a fire. At extreme elevated temperatures HF, perfluoroisobutylene, perflourinated acid fluorides and other toxic vapors can be generated.
Wash hands thoroughly before using tobacco or other products intended to be burned and inhaled.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Identity: **Silicon dioxide, <7.0%**
Common Name: Amorphous fumed silica
CAS Number: 112945-52-5
Impurities: Less than 1%, not classifiable

Chemical Identity: **Zinc alkylsulfonate/carboxylate, <0.5%**
Common Name: None
CAS Number: Not provided by manufacturer
Impurities: No information provided by manufacturer

This product contains no other hazardous components above reportable concentrations.

4. FIRST AID MEASURES

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention. Obtain medical attention.

Skin Contact: Wash affected area with soap and water. If signs/symptoms persist, get medical attention. No need for first aid is anticipated.

Inhalation: If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.

Ingestion: If swallowed, do not induce vomiting. If irritation or discomfort occurs, obtain medical assistance.

5. FIRE FIGHTING MEASURES

Autoignition Temperature: >300°C
Flash point: >300°C
Flammable Limits (LEL) Not determined
Flammable Limits(UEL) Not determined
Suitable Extinguishing Media: On large fires used dry chemical, foam, or water spray. On small fires use carbon dioxide, dry chemical, or water spray. Water can be used to cool fire exposed containers.
Unsuitable Extinguishing Media: None.
Specific hazards in case of fire: Avoid reaction with oxidizers. At extreme elevated temperatures HF, perfluoroisobutylene, perflourinated acid fluorides and other toxic vapors can be generated. Hydrogen Flouride has an ACGH TLV of 3 ppm as fluoride as a Ceiling Limit and a OSHA pel of 3ppm of fluoride as an eight hour TWA and 6 ppm as a Short Term Exposure Limit. The odor threshold for HF is 0.04 ppm, providing good warning properties for exposure.

Special protective equipment and precautions for fire fighters:

No acute hazard. Move container from fire area, if possible. Avoid breathing vapors or dusts. Keep upwind. Use full firefighting gear (bunker gear). Any supplied-air respirator with full face piece and operated in a pressure-demand or other positive pressure mode in combination with a separate escape air supply. Use any self contained breathing apparatus with a full face piece.

Alert fire brigade and indicate hazard location. Wear breathing apparatus plus protective clothing. Cool fire exposed containers with water spray from a protected location. Do not approach containers suspected to be hot. If safe to do so, remove containers from path of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use appropriate personal protection. (See section 8.)

Environmental precautions: For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Methods for material containment and cleaning up: Observe precautions from other sections. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent. Seal the container.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin, inhalation of mist, or ingestion. See section 8 for personal protection equipment. Practice good personal hygiene to prevent accidental ingestion after handling. Properly dispose of clothing that cannot be decontaminated. Wash hands thoroughly before using tobacco or other products intended to be burned and inhaled.

Conditions for safe storage, including any incompatibilities: Store away from oxidizing materials. Store product in a closed container located in a dry area. Do not store in open, inadequate, or mislabeled packaging. Check that containers are clearly labeled. Use metal cans, metal drums, plastic, or lined fiber containers. Keep away from heat and flame.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: Under most handling conditions, this product will not generate mist or dust.

Engineering Controls: In most conditions, no special local ventilation is needed. General ventilation recommended. If the product is heated above 150°C or atomized ventilation should be used.

Personal Protective Equipment (PPE):

Eyes: Safety glasses recommended.

Skin: Impermeable gloves should be worn. Product is compatible with most elastomers.
Inhalation: No respiratory protection required under most conditions. If concentrations exceed exposure limits, approved respiratory equipment must be used.

9. CHEMICAL AND PHYSICAL PROPERTIES

Physical state:	Solid. Liquid may separate from product.
Color:	Off white
Odor:	Nearly odorless
Odor Threshold:	Not available
pH Value:	Not applicable
Melting Point:	327°C
Freezing Point:	Becomes very stiff with decreasing temperature around -45°C
Initial Boiling Point:	>300°C
Flash Point:	>300°C COC (Base oil)
Evaporation rate:	Not available
Flammability (solid, gas):	Not applicable
Explosion limits:	Not available
Vapor pressure:	Negligible at 20°C
Vapor density:	Not available
Solubility:	Insoluble in water at 20°C
Partition coefficient:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Begins to decompose at 150°C.

10. STABILITY AND REACTIVITY

Chemical stability: Stable under ambient temperatures and pressures
Possibility of hazardous reactions: May react with air under very high pressure. Otherwise will not react or polymerize.
Conditions to avoid: No specific conditions to avoid have been identified.
Materials to avoid: Oxidizers
Hazardous decomposition products: Decomposes on heating and producing carbon dioxide, carbon monoxide, and incompletely burned carbon compounds. At extreme elevated temperatures HF, perfluoroisobutylene, perflourinated acid fluorides and other toxic vapors can be generated. Hydrogen Flouride has an ACGH TLV of 3 ppm as fluoride as a Ceiling Limit and a OSHA pel of 3ppm of fluoride as an eight hour TWA and 6 ppm as a Short Term Exposure Limit. The odor threshold for HF is 0.04 ppm, providing good warning properties for exposure.

11. TOXICOLOGICAL INFORMATION

Polyalphaolefin:
Ingestion LD_{50}, Rat >5,000 mg/kg; Dermal, Rabbit, >5,000 mg/kg; Inhalation LC_{50}, Rat >5,000 mg/m^3; Non-irritating. (All data from similar materials)
Ethylene propylene copolymer:
Ingestion LD_{50}, Rat >10,000 mg/kg
Zinc alkylsulfonate/carboxylate:
Mild skin and eye irritant.

12. ECOLOGICAL INFORMATION

Toxicity:

Polyalphaolefin:
Not expected to be harmful to aquatic organisms. Expected to be inherently biodegradable.
2,5,8,11 Tetramethyl 6 dodecyn-5,8 diol ethoxylate:
Anticipated to be harmful to aquatic organisms based on data from a similar material

Persistence and degradability: In soil, siloxanes are degraded.
Bioaccumulative potential: Not expected to bioaccumulate.
Mobility in soil: Siloxanes are removed from water by sedimentation or binding to sewage sludge. PTFE is not mobile.

13. DISPOSAL PROCEDURES

Waste treatment methods: Waste (substance and container material) shall be recycled/recovered or disposed of as applicable and in accordance with community (EU) and local legislation. Recycle wherever possible. Consult state land waste management authority for disposal. Bury at an approved site. Recycle containers if possible, or dispose of in an authorized landfill.
According to the European Waste Catalogue, Waste Codes are not product specific but application specific. Waste Codes should be assigned by the user based on the application in which the product is used.
For USA Disposal: Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

14. TRANSPORT INFORMATION

Class or Type: US DOT, IMO, ADR, RID, ADN, IMDG, and IATA: Non-hazardous

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the mixture:

Other Information:
U. S. Regulatory information

TSCA Inventory Status:	All ingredients listed or exempt
TSCA 12 (b) Export Notification:	Not listed
CERCLA Section 103 (40 CFR 302.4):	N
SARA Section 302 (40 CFR 355.30):	N
SARA Section 304 (40 CFR 355.40):	N
SARA Section 313 (40 CFR 372.65):	Zinc compounds <0.5%
OSHA Process Safety (29 CFR 1910.119):	N

SARA Hazard Categories, SARA Sections 311/312 (40 CFR 370.21) -

Acute Hazard:	N
Chronic Hazard:	N
Fire Hazard:	N
Reactivity Hazard:	N
Sudden Release Hazard:	N

State Regulations: Not on California Proposition 65 list. Does not contain any contaminants or by-products known to the State of California to cause cancer or reproductive toxicity above threshold levels.

Chemical Inventories:

DSL (Canada)	All ingredients listed or exempt
EINECS (European Union)	All ingredients listed or exempt
ENCS/ISHL (Japan)	All ingredients listed or exempt
IECSC (Peoples Republic of China)	All ingredients listed or exempt
TSCA (United States of America)	All ingredients listed or exempt

16. OTHER INFORMATION

NFPA Hazard Classification:

Health:	2
Flammability:	1
Reactivity:	0
Special Hazards:	None

POLYSI® Lubricants Issued 06/13/16
PST-609 Revision 1 06/13/16

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency personnel to address the hazards that are presented by short-term, acute exposure to material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification:

Health:	1
Flammability:	1
Reactivity:	0
Protection:	B (See PPE section)

Hazardous Material Identification System (HMIS) hazard ratings are designed to inform employees of chemical hazards in the workplace. The ratings are based on inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations.

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.