SAFETY DATA SHEET

POLYSI® G-Man® Lubricants Issued 10/25/17
PST-52 Revision 0 10/25/17

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **PST-52**
Recommended Use: Lubricant
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:
Thermal decomposition can lead to release of toxic and corrosive gasses

Precautionary Statements:

Use personal protective equipment as required. Wear safety glasses and gloves.

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product does not contain any 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: In cases of accidental inhalation of fumes from overheating or combustion, move to fresh air. Oxygen or artificial respiration if needed.

Ingestion: If swallowed, do not induce vomiting. Drink one or two glasses of water. If irritation or discomfort occurs, obtain medical assistance.

5. FIRE FIGHTING MEASURES

Autoignition Temperature: This product is not flammable.
Flash point: This product is not flammable.
Flammable Limits (LEL) This product is not flammable.
Flammable Limits(UEL) This product is not flammable.
Suitable Extinguishing Media: On large fires used powder, dry chemical, foam, carbon dioxide, 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.

PolySi® Lubricants

Specific hazards in case of fire: This product is not flammable or explosive. In case of fire, hazardous decomposition products may be formed such as hydrogen fluoride or fluorophosgene. Hydrogen fluoride 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. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer, or drain.

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 prevents 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 atomized ventilation should be used.

Personal Protective Equipment (PPE):

Eyes: Safety glasses recommended.

Skin: Impermeable gloves should be worn. This material will not react with almost all 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:	White
Odor:	Odorless
Odor Threshold:	Not available
pH Value:	Not applicable
Melting Point:	Decomposes
Freezing Point:	Becomes very stiff with decreasing temperature around -65°C
Initial Boiling Point:	>300°C
Flash Point:	None
Evaporation rate:	Not available
Flammability (solid, gas):	Not applicable
Explosion limits:	None
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:	>290°C

10. STABILITY AND REACTIVITY

Chemical stability: Stable under ambient temperatures and pressures

Possibility of hazardous reactions: Will not react or polymerize under normal conditions.

Conditions to avoid: Temperatures exceeding 290°C, flames, sparks.

Materials to avoid: Lewis acids (Freidel-Crafts) above 100°C. Aluminum and magnesium powder above 200°C. Metals produce lower decomposition temperature.

Hazardous decomposition products: Hydrogen fluoride, fluorophosgene

11. TOXICOLOGICAL INFORMATION

Toxicity:

Perfluoropolyether:

Ingestion LD_{50} (rat) > 15,000 mg/k; Dermal LD_{50} (rabbit) >5000 mg/kg, no irritation after 14 days; No eye irritation (rabbit), No sensitization (guinea pig), Not mutagenic in Ames test. Negative chromosome aberration in vitro.

Polytetrafluoroethylene:

Ingestion LD_{50} (rat) > 10,000 mg/kg; Repeated dose No toxicologically significant effects were found.

Acute inhalation toxicity: The thermal decomposition vapors of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco.

Skin irritation (rabbit) Not classified as irritant. No skin irritation. (human) Not classified as irritant No skin irritation

Sensitisation (human) Not a skin sensitizer. Does not cause skin sensitization. Patch test on human volunteers did not demonstrate sensitization properties.

Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Not classifiable as a human carcinogen.
No toxicity to reproduction

12. ECOLOGICAL INFORMATION

Toxicity:
Perfluoropolyether:
Invertebrates: *Daphnia magna* 24h-EC_{50} >10,000 mg/L Method OECD 202
Fish: *Brachydanio rerio* 96h-LC_{50} >10,000 mg/L Method OECD 203
Polytetrafluoroethylene:
PTFE is a polymer and is not expected to produce toxic effects in fish.
Mobility in soil: 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

DOT, ADR/RID, AND, IATA, IMDG: Not hazardous

15. REGULATORY INFORMATION

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

Other Information:
U. S. Regulatory information

TSCA Inventory Status:	Y
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):	N
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: This product contains no chemicals as known to the State of California to cause cancer, birth defects, or other reproductive harm.

Chemical Inventories:
DSL (Canada) One or more components not listed.

NDSL (Canada)	On the inventory, or in compliance with the inventory
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:	1
Flammability:	1
Reactivity:	0
Special Hazards:	None

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.