

## **SANTOLUBES LLC**

SANTOTRAC, SANTOVAC, SANTOLUBES, AND SYNERGY

P. O. Box 6740  
Spartanburg, SC 29304

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

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**PRODUCT NAME: SANTOVAC® 5 POLYPHENYL ETHER LUBRICANT**

**Chemical Name:** Not Applicable  
**Chemical Family:** Polyphenyl ether  
**Chemical Type:** Substance

**Identified Uses:**

**Sectors and conditions of uses:**

**Industry:**  
**Professional:**  
**Private:**

**Company/Undertaking Identification:** SantoLubes LLC  
PO Box 6740  
Spartanburg, SC 29304

**E-Mail:** SafetyDataSheets@santolubes.com

**Product Technical Information:** 864-585-3661

**Emergency Telephone:**

FOR CHEMICAL EMERGENCY, Call CHEMTREC – 1-800-424-9300 or 703-527-3887.

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### 2. HAZARDS IDENTIFICATION

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**2.1. Classification of the substance or mixture**

**2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

Not classified

**2.1.2. Classification according to Directive 67/548/EEC or 1999/45/EC**

Not classified

**2.1.3. Adverse physicochemical, human health and environmental effects**

No relevant data available

**2.2. Label elements**

For classified products a derogation for labeling exists under Annex 1 Section 1.3.4 of the CLP Regulation 1272/2008. Under this derogation the product in the form in which it is placed on the market is not hazardous to human health by inhalation, ingestion, or skin contact or hazardous to the aquatic environments.

**2.2.1. Labeling according to Regulation (EC) No 1272/2008 [CLP/GHS]**

No labeling applicable

**2.2.2. Labeling according to Directive 67/548/EEC or 1999/45/EC**

R-phrases : -

**2.3. Other hazards**

No relevant data available

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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SANTOVAC® 5 polyphenyl ether is a multi-ring polyphenyl ether. The CAS Number for this material is 2455-71-2.

It is not a hazardous chemical(s) under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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**4. FIRST AID MEASURES**

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**INHALATION:** Immediate first aid is not likely to be required. However, if symptoms occur, remove to fresh air. Remove material from eyes, skin and clothing.

**SKIN CONTACT:** Immediate first aid is not likely to be required. However, this material can be removed by washing thoroughly with soap and water. Wash heavily contaminated clothing before reuse.

**EYE CONTACT:** Immediate first aid is not likely to be required. However, this material can be removed by washing thoroughly with soap and water. Wash heavily contaminated clothing before reuse.

**INGESTION:** Immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice.

**SELF-PROTECTION OF THE FIRST AIDER:** First Aider should wear rubber gloves and suitable eye protection to prevent skin and eye exposure.

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**5. FIRE FIGHTING MEASURES**

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**SUITABLE EXTINGUISHING MEDIA:** Water spray, foam, dry chemical, carbon dioxide or any Class B extinguishing agent.

**EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS:** Not applicable

**SPECIAL EXPOSURE HAZARDS ARISING FROM THE SUBSTANCE OR PREPARATION ITSELF, COMBUSTION PRODUCTS, RESULTING GASES:** Products of decomposition include carbon monoxide, carbon dioxide, and hydrocarbons.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:** Fire fighters or others likely to be exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

**ADDITIONAL INFORMATION:** Not applicable

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## **6. ACCIDENTAL RELEASE MEASURES**

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**PERSONAL PRECAUTIONS:** Wear rubber gloves and safety glasses with side shield. Prevent skin and eye exposure.

**ENVIRONMENTAL PRECAUTIONS:**

**METHODS FOR CLEANING UP:** Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush residual spill area with water.

**LAND SPILL:**

**WATER SPILL:**

**ADDITIONAL INFORMATION:** Not applicable

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## **7. HANDLING AND STORAGE**

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**ADVISES ON SAFE HANDLING:** Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing.

**PROTECTIVE MEASURES:** Should require no special protective measures in handling and storage.

**MEASURES TO PREVENT AEROSOL AND DUST GENERATION:** Not applicable

**MEASURES REQUIRED TO PROTECT THE ENVIRONMENT:** Not applicable

**SPECIFIC REQUIREMENTS OR HANDLING RULES:** Not applicable

**ELECTROSTATIC ACCUMULATION HAZARD:** Not applicable

**FURTHER INFORMATION:** Not applicable

**TECHNICAL MEASURES AND STORAGE CONDITIONS:** Not applicable

**PACKAGING MATERIALS:** Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

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## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**OCCUPATIONAL EXPOSURE LIMITS:** Not Established

**BIOLOGICAL LIMIT VALUES:** Not Established

**DNEL/DMEL AND PNEC-VALUE(S):** Not Established

**OCCUPATIONAL EXPOSURE CONTROLS:** Provide natural or mechanical ventilation to minimize exposure. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

**TECHNICAL MEASURES TO PREVENT EXPOSURE:** Not Applicable

**PERSONAL PROTECTION EQUIPMENT:** See Exposure Controls Above

**RESPIRATORY PROTECTION:** Avoid breathing mist. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure is excessive. Consult respirator manufacturer to

determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 CFR 1910.134.

**HAND PROTECTION:** Although it does not present a significant skin concern wearing protective gloves is recommended. Wash thoroughly after handling.

**EYE PROTECTION:** This product does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact.

**BODY PROTECTION:** Although it does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wash contaminated skin thoroughly after handling.

**ENVIRONMENTAL EXPOSURE CONTROLS:**

**WATER (INCL. SEWAGE PLANT):**

**AIR:**

**SOIL:**

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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<b>PHYSICAL STATE:</b>	Liquid
<b>COLOR:</b>	Light yellow essentially clear liquid
<b>ODOR:</b>	Odorless to slight phenolic
<b>Appearance:</b>	Light yellow essentially clear liquid
<b>Flash Point:</b>	550°F (287°C) <b>Method:</b> Cleveland Open Cup
<b>Auto-ignition Temperature:</b>	1135°F (612°C)
<b>Fire Point:</b>	660°F (348°C)
<b>Boiling Point:</b>	889°F @ 760 mm Hg
<b>Pour Point:</b>	40 °F
<b>Specific Gravity:</b>	1.195 – 1.201 @ 25/25°C
<b>pH:</b>	Neutral
<b>Solubility:</b>	Soluble in acetone and light aromatic solvents; insoluble in water

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

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**10. STABILITY AND REACTIVITY**

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**STABILITY:** SANTOVAC® 5 lubricant is stable under ordinary handling and storage conditions.

**CONDITIONS TO AVOID:** Not Applicable

**MATERIALS TO AVOID INCOMPATIBILITY:** Exposure to highly oxidizing materials should be avoided.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Continued use at temperature above 425°C may result in the formation of benzene and phenol. If the product is burned, complete combustion produces carbon dioxide and water and partial combustion produces carbon monoxide, smoke, soot and low molecular weight hydrocarbons.

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION:** Not Applicable

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## 11. TOXICOLOGICAL INFORMATION

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**EYE CONTACT:** Nonirritating (Rabbit, 0.0/110.0)

**SKIN CONTACT:** Nonirritating (Rabbit, 24-hr exposure, 0.0/8.0)

**INHALATION:** Practically Nontoxic (Rat 4-hr LC50 > 47 mg/l. No deaths and no signs of toxicity were observed in animals exposed to 47 mg/l, the highest atmospheric concentration achievable by heating the material to 329°C in this study.)

**INGESTION:**

**ACUTE TOXICITY:** Data from laboratory studies on similar polyphenol ether formulations are summarized as follows:

	Effect dose	Species	Method	Remark
Oral	LD50: >34,600 mg/kg	Rat		Practically nontoxic
Oral	LD50:> 34,600 mg/kg	Rabbit		Practically nontoxic
Dermal	LD50:> 34,600 mg/kg	Rabbit		Practically nontoxic
Inhalative	LC50:> 47 mg/l*	Rat		Practically nontoxic

\* No deaths and no signs of toxicity were observed in animals exposed to 47 mg/l, the highest atmospheric concentration achievable by heating the material to 329°C in the study.

**IRRITANT AND CORROSIVE EFFECTS:**

Laboratory studies have been conducted on similar polyphenyl ether formulations and these data are considered representative of SANTOVAC® 5 Lubricant.

In a controlled skin contact study, no skin irritation (primary or cumulative) or skin allergy was observed in humans following repeated exposures to a polyphenyl ether formulation similar to SANTOVAC® 5 Lubricant.

Increases in liver weight and liver/body weight ratios with accompanying increase in liver cell size, considered to be related in increased liver metabolic activity and increases in adrenal weight were noted in rats following repeated skin exposure (4-weeks) to a second polyphenyl ether formulation. This same formulation produced no genetic changes in standard tests using animal or bacterial cells.

**SENSITISATION:**

Repeated dose toxicity (sub-acute to chronic)

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## 12. ECOLOGICAL INFORMATION

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SANTOLUBES LLC has not conducted environmental toxicity studies with this product.

**Aquatic toxicity:**

**Biodegradation:**

**Bioaccumulation:**

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**13. DISPOSAL CONSIDERATIONS**

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**APPROPRIATE DISPOSAL / PRODUCT:** Dispose of in accordance with all federal, state and local environmental regulations.

**WASTE CODES / WASTE DESIGNATIONS ACCORDING TO EWC / AVV:**

**APPROPRIATE PACKAGING:**

**ADDITIONAL INFORMATION:** This material when discarded is not a hazardous waste as defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Recommended method of disposal is by high temperature incineration in a RCRA approved TSDF.

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**14. TRANSPORT INFORMATION**

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**NOTE:** This material is not classified as a hazardous material by the U.S. Department of Transportation (DOT) or by the International Air Transport Association (IATA).

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**15. REGULATORY INFORMATION**

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<b>Label according to EC Directive 1999/45/EC (Dangerous Preparations Directive)</b>
<b>Trade name:</b>
SANTOVAC® 5 Polyphenol Ether Lubricant
<b>Hazardous substances:</b>
<b>Danger Symbols:</b>
<b>Risk Phrases</b>
<b>Safety Phrases</b>
<b>Substance Origin</b>
SantoLubes LLC 2155 West Croft Circle Spartanburg, SC 29302
<b>-- State Regulations --</b> <b>Cal. Prop. 65</b> - This product does not contain any components that are regulated under California Proposition 65.

**16. OTHER INFORMATION**

**Risk/Safety phrases:**

This is for people trained in the National Paint & Coatings Association's (NPCA) Hazardous Materials Identification System (HMIS) and the National Fire Protection Association (NFPA 704):

**NPCA-HMIS**

Name of Material  
**SANTOVAC® 5**

<b>0</b>	<b>HEALTH</b>
<b>1</b>	<b>FLAMMABILITY</b>
<b>0</b>	<b>REACTIVITY</b>
<b>B</b>	<b>PROTECTIVE EQUIPMENT</b>



**NFPA 704 Flammability**

Health	<b>1</b>	Reactivity
<b>0</b>		<b>0</b>
	<b>Other Hazard</b>	

**HAZARD INDEX**

0 = Minimal Hazard	1 = Slight Hazard	2 = Moderate Hazard	3 = Serious Hazard	4 = Severe Hazard
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NOTICE: Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, SANTOLUBES LLC makes no representations as to the completeness or accuracy thereof. Information is supplied upon the conditions that the persons receiving same will make their own determinations as to its suitability for their purposes prior to use. In no event will SANTOLUBES LLC be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.