



Material Safety Data Sheet FLXP0043

Revision Date: 10/31/2000
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: SANTOVAR TAHQ

MSDS NO. FLXP0043

Chemical Name: 2,5-Di(tert-amyl)hydroquinone

Synonyms: Santovar A; 2,5-Di-t-pentylhydroquinone; 1,4-Benzenediol, 2,5-bis(1,1-dimethylpropyl)-

Use: Antioxidant.

Manufactured By: Flexsys America L.P. 260 Springside Drive Akron OH 44333 USA

Emergency Telephone: CHEMTREC: 1-800-424-9300 (TOLL FREE - USA and Territories)
703-527-3887 (ELSEWHERE - Collect Calls Accepted)

CANUTEC: 613-996-6666 (Canada)

SETIQ: 91-800-00-214 (Mexico)

Prepared By: Flexsys America Product Safety Phone (330) 668-8281 FAX (330) 668-8281

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components/CAS#	Percent
2,5-Di(tert-amyl)hydroquinone 79-74-3	100

3. HAZARDS IDENTIFICATION

Hazard Information

Emergency Overview: WARNING! Combustible dust - explosion potential. Causes eye irritation. This material is a skin irritant. May cause allergic skin reaction.

Eye Contact: Causes eye irritation. Moderate Eye Irritation: signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.

Skin Contact: Causes moderate skin irritation. Causes drying of the skin. May cause a rash and itching of the skin. May cause an allergic skin reaction.

Inhalation: Causes moderate respiratory irritation. Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

Ingestion: Illness may occur after a single swallowing of relatively large quantities of this material.

4. FIRST AID MEASURES

In Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get

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medical attention if irritation persists.

On Skin: Remove contaminated clothing. Wash skin with water, using soap if available. Remove contaminated clothing and laundry before reuse. If irritation persists or signs of toxicity occur, seek medical attention.

Inhaled: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Swallowed: If swallowed, give at least 3-4 glasses of water, but do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

Notes To Physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): >200°C
Flash Point Method: Cleveland Closed Cup
Autoignition Temp. (°F/C): 880°F
Lower Explosion Limit in Air (LEL): 0.05 oz/ft³
Upper Explosion Limit in Air (UEL): Not Determined.

Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical
Special Exposure Hazards: Fight fire from a safe distance and from a protected location. Sprinkler and/or deluge systems recommended for bulk storage areas. Use water spray to cool fire exposed surfaces. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways.

Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

Unusual Fire/Explosion Hazards: Toxic emissions may result if product is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Wear protective equipment specified. Avoid the generation of dust. Sweep, vacuum, or shovel and place into closable container for disposal.

Procedure for Cleaning/Absorption: Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy. Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Scoop up and remove. Ventilate area. Do NOT spread spilled product with water.

CERCLA Reportable Quantity (RQ): Not Applicable

7. HANDLING AND STORAGE

Handling: Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded with material. Avoid generating or breathing dust. Avoid contact with eyes, skin and clothing. Reclose containers of unused product. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Do not reuse this container.

Storage: Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Store away from strong acids. Avoid exposure to direct sunlight. Do not double stack.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Wear safety glasses or goggles to protect against exposure. Wear eye protection appropriate to handling activities.

Skin Protection: Normal work coveralls. Launder contaminated clothing before reuse.

Gloves: Use gloves as a standard industrial handling procedure. All cleanable impervious glove types are acceptable.

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Respiratory Protection:	Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Firefighting; use a Positive Pressure Demand Full Face Self Contained Breathing Apparatus.
Ventilation:	General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. If air is to be recirculated, it must be filtered properly.
Airborne Exposure Limits:	Nuisance Dust. OSHA PEL/8Hr-TWA = 15 mg/m ³ (Total Dust). OSHA PEL/8-Hr TWA = 05 mg/m ³ (Respirable Dust). ACGIH TLV/8-Hr TWA = 10 mg/m ³ .

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to off-white powder
Odor:	SLIGHT
pH:	N/A
Specific Gravity:	1.05 @ 25°C
Density:	Not Determined
Bulk Density:	Not Determined
Melting Point (°F/C):	179.4-180.4°C
Boiling Point (°F/C):	Not Determined
Vapor Pressure:	Negligible
Vapor Density (Air=1):	Not Determined
% Volatile by Volume:	<0.5%
Solubility in Water:	INSOLUBLE
Other Solubility:	Soluble in Acetone Ether Alcohol Benzene Naphtha
Viscosity:	Not Determined.
Other Data:	Not determined.
Molecular Weight:	250.4
Molecular Formula:	C16-H26-O2

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation.
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Keep away from heat, sparks and flame. Exposure to heat and humidity. Contact with acids. Strong oxidizing agents. Do not double stack.
Materials to Avoid:	Contact with oxidizing agents. Contact with acids.
Hazardous Decomposition Products:	Carbon monoxide. Oxides of nitrogen.
Additional Guidelines:	Not Applicable

11. TOXICOLOGICAL INFORMATION

Target Organs	
Acute Oral LD50 (mg/kg):	1900 mg/kg
Acute Dermal LD50 (mg/kg):	>3160 mg/kg
Acute Inhalation LC50 (mg/l):	Not Determined
Principle Routes of Exposure:	Eyes. Inhalation. Dermal - skin.
Ingestion:	Illness may occur after a single swallowing of relatively large quantities of this material.
Skin Contact:	Causes moderate skin irritation. Causes drying of the skin. May cause a rash and itching of the skin. May cause an allergic skin reaction.
Inhalation:	Causes moderate respiratory irritation. Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and

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Eye Contact:	sneezing. Causes eye irritation. Moderate Eye Irritation: signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.
Aggravated Conditions:	Dermal ailments. Respiratory Eye ailments.
Carcinogenicity Comment:	This product or one of its ingredients present 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA. Carcinogenic: Category 3
Other:	Only hazard is a dust hazard.
Primary Irritation Effect:	Slightly irritating. Sensitizer.
Carcinogenicity:	Negative in standard tests using bacteria and yeast cells.
Genotoxicity:	None
Reproductive/Developmental Toxicity:	Not determined

12. ECOLOGICAL INFORMATION

Acute Fish Toxicity:	96Hr LC50 Rainbow Trout = 0.07 mg/l. 96Hr LC50 Fathead Minnow = 0.12 mg/l.
Acute Crustaceans Toxicity:	96Hr LC50 Bluegill Sunfish = 34.0 mg/l.
Acute Algae Toxicity:	48Hr EC50 Daphnia Magna: 0.91 mg/l.
Octanol/Water Coefficient:	96Hr EC50 Algae = 2.90 mg/l.
Chemical Fate Information:	Not determined.
Other Information:	Biodegradation: 1% based on CO2 evolution. Not Available

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method:
This material is not a RCRA hazardous waste. Bury in a licensed landfill or burn in an approved incinerator according to federal, state, and local regulations. Empty containers should be handled in a manner not to cause dusting during collection, transportation and disposal.

Contaminated Packaging:
If empty container retains product residues, all label precautions must be observed. Store away from ignition sources. Transport with all closures in place. Return for reuse or dispose according to national or local regulations. Dispose of container according to national or local regulations.

14. TRANSPORT INFORMATION

DOT:DOT Status:	Not Regulated
DOT Shipping Name:	NONE
DOT Reportable Quantity (lbs):	None
ICAO/IATA:Status:	NOT REGULATED FOR TRANSPORTATION
Proper Shipping Name:	None
UN/NA Number:	NONE
IMDG:Status:	Not Regulated
Proper Shipping Name:	None
TDG (Canada):Status:	Not Regulated
Proper Shipping Name:	None

15. REGULATORY INFORMATION

Worldwide Inventory Status	
TSCA (USA):	Listed

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Canadian DSL: Listed
Canadian NDSL: N/A
EINECS/ELINCS (Europe): Listed
Japanese Inventory (ENCS): Listed
Korean Chemical Inventory (ECL): Listed
Australian Chemical Inventories (AICS): Listed
New Zealand (NZ): Listed
Phillipines (PICCS) Inventory: Listed
China (CLECS): Listed

US Regulatory Rules
SARA Section 302: None Found
SARA 311/312 Hazard Categories: Immediate Fire
SARA 313 Chemical: N/A
RCRA Status: Not a RCRA waste.

Other Regulations:
California Proposition 65: NONE
New Jersey Right-to-Know List: N/A
Pennsylvania Right to Know List: N/A
Florida Right to Know: N/A
Minnesota Right to Know: N/A
MA Right to Know Law: N/A

FDA Status 21 CFR: Regulated for Use under the following sections of 21 CFR: 177.2600 Rubber Articles Intended for Repeated Use in Food Contact. 175.105 Components of Adhesives.

Canadian Regulations
WHMIS Hazard Class: D2B TOXIC MATERIALS / Materials Causing Other Toxic Effects
NPRI: N/A

16. OTHER INFORMATION

Hazard Rating Systems:
HMIS Classification: HEALTH 2, FLAMMABILITY 1, REACTIVITY 0
NFPA Rating: HEALTH 1, FLAMMABILITY 1, REACTIVITY 0

The following has been revised since the last issue of this MSDS:
Nothing has been revised.

Additional Information: NONE

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END OF MSDS



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