

**Technical Information**  
**Material Safety Data Sheet**

SDT-121SL\_03E

<b>SECTION 1</b>		<b>CHEMICAL PRODUCT AND COMPANY IDENTIFICATION</b>	
<b>MANUFACTURE'S NAME</b>	<b>TELEPHONE NUMBER</b>	<b>FACSIMILE NUMBER</b>	
GASTEC CORPORATION	+81-467-79-3910	+81-467-79-3979	
<b>ADDRESS</b>			
6431 Fukaya, Ayase-City, Kanagawa 252-1103, Japan			
<b>REFERENCE NUMBER</b>		<b>DATE PREPARED</b>	
SDT-121SL_03E		September 17, 2005	
<b>PRODUCT NAME</b>		Gas Detector Tube Benzene Detector Tube No.121SL	
<b>SECTION 2</b>		<b>COMPOSITION/INFORMATION ON INGREDIENTS</b>	
<b>Pretreatment Tube:</b> Porous Silica Gel (0.6g) impregnated with Sulfuric Acid (25-35%) and Chromic Anhydride (<1%) in a glass tube. <b>Detector Tube:</b> Porous Silica Gel (0.6g) impregnated with Fuming Sulfuric Acid (5-15%), Sulfuric Acid (5-10%), and Chromic Anhydride (<1%) in a glass tube.			
<b>SECTION 3</b>		<b>HAZARDOUS IDENTIFICATION</b>	
Not applicable			
<b>SECTION 4</b>		<b>FIRST AID MEASURES</b>	
Eye contact:	Wash eyes immediately with plenty of water for at least 15 minutes and see a doctor.		
Skin contact:	Wash affected area immediately with soap and plenty of water.		
Inhalation:	Not applicable		
Ingestion:	Rinse mouth immediately and see a doctor.		
<b>SECTION 5</b>		<b>FIRE FIGHTING MEASURES</b>	
None			
<b>SECTION 6</b>		<b>ACCIDENTAL RELEASE MEASURES</b>	
Not applicable			
<b>SECTION 7</b>		<b>HANDLING AND STORAGE</b>	
When breaking off the tube ends, keep away from eyes. Broken glass tubes should not be picked up with bare hands. Tubes should be stored in a cool and dark place.			
<b>SECTION 8</b>		<b>EXPOSURE PROTECTION</b>	
Not applicable			
<b>SECTION 9</b>		<b>PHYSICAL AND CHEMICAL PROPERTIES</b>	
Fuming sulfuric acid, Chromic Anhydride, and Sulfuric acid:			
Flash point:	Not available		
Autoignition point:	Not available		

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**SECTION 10 STABILITY AND REACTIVITY**

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Fuming sulfuric acid:	
Stability:	White smoke poisonous gas (sulfur trioxide) is emitted in air.
Reactivity:	React violently with water to evolve heat. Diluted sulfuric acid reacts with metals such as iron to form flammable hydrogen gas may cause fire and explosion. May cause ignition in contact with organic materials.
Condition to avoid:	Sunlight, Heat, Moisture
Hazardous decomposition product:	Sulfur oxides may be formed.
Chromic anhydride:	
Stability:	Stable.
Reactivity:	Strong oxidizers. Contact with organic agents or metal powder may cause expose by heat or shock. Contact with organic agents may cause fire.
Condition to avoid:	Sunlight, Heat
Hazardous decomposition product:	Not available
Sulfuric acid:	
Stability:	Stable. Absorb moisture powerfully from the air.
Reactivity:	React violently with water to evolve heat and may spatter. Bite into metals and concrete caused by oxidation. Carbonize to flammable organic materials.
Condition to avoid:	Sunlight, Heat, Moisture
Material to avoid:	Organic materials, Reducing agents, Metals
Hazardous decomposition product:	Sulfur oxides may be formed

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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Fuming sulfuric acid:	
Acute toxicity data:	LC50 (ihl, rat): 347ppm/1H (RTECS)
Irritation data:	as Sulfuric acid; Eye; rabbit; 250 $\mu$ g; severe (RTECS)
Mutagenicity:	Not available
Carcinogen:	IARC: Human carcinogen (Group 1) ACGIH: as Sulfuric acid; Suspected human carcinogen (A2)
Chromic anhydride:	
Acute toxicity data:	LD50 (ip, rat): 58400 $\mu$ g/kg (RTECS) LD50 (iv, rat): 9260 $\mu$ g/kg (RTECS) LD50 (orl, mouse): 127mg/kg (RTECS) LD50 (ip, mouse): 14mg/kg (RTECS) LDLo (sc, mouse): 20mg/kg (RTECS) LD50 (iv, mouse): 17100 $\mu$ g/kg (RTECS)
Irritation data:	Not available
Mutagenicity:	Not available
Carcinogen:	as Hexavalent chromium; NTP: K (Prospective human carcinogen) IARC: Group 1 (Human carcinogen) ACGIH: A1 (Known to be carcinogen) Japan Society for Occupational Health: Group 1 (Human carcinogen)
Sulfuric acid	
Acute toxicity data:	LD50 (orl, rat): 2140mg/kg LC50 (ihl, cavy): 18mg/m <sup>3</sup>
Irritation data:	Eye; rabbit; 1380 $\mu$ g; severe
Mutagenicity:	Not available
Carcinogen:	Not available

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**SECTION 12**                      **ECOLOGICAL INFORMATION**

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Fuming sulfuric acid, Sulfuric acid:

Not available

Chromic anhydride:

Biodegradability:                      Not available

Bioaccumulation                      Concentration scale factor (BCF); 4.6-15 (concentration, 100  $\mu$  g/l);

Potential:                                      14-21 (concentration, 20  $\mu$  g/l); 11-43 (concentration 5  $\mu$  g/l); 16-72

(concentration 94-242  $\mu$  g/l)

Aquatic toxicity:                      LC50 (killifish): 82mg/l/48H

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**SECTION 13**                      **DISPOSAL CONSIDERATION**

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This pretreatment tube contains 11.64 mg of hexavalent chromium.

This detector tube contains 0.78 mg of hexavalent chromium.

Dispose of in accordance with all applicable laws and regulations.

(Contact local environmental agency for specific rules.)

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**SECTION 14**                      **TRANSPORT INFORMATION**

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Breakage of tubes caused by drops, high pressure or bends should be avoided.

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**SECTION 15**                      **REGULATORY INFORMATION**

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Not applicable

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**SECTION 16**                      **OTHER INFORMATION**

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No specific notes